May 31, 2017

Via Email: Steel232@bis.doc.gov

Brad Botwin
Director, Industrial Studies
Office of Technology Evaluation
Bureau of Industry and Security
U.S. Department of Commerce
1401 Constitution Avenue NW., Rm 1093
Washington, DC 20230

RE: Sec. 232 National Security Investigation of Imports of Steel

Director Botwin:

By publication in the Federal Register on April 26, 2017, the Department of Commerce invited public comment on its Section 232 National Security Investigation of Imports of Steel. "See Notice Request for Public Comments and Public Hearing on Section 232 National Security Investigation of Imports of Steel, 82 Fed. Reg. 19,205 (Dep’t of Commerce April 26, 2017)." Per the notice, comments are due “no later than May 31, 2017.” "Id. 82 Fed. Reg. at 19,206."

On behalf of Downhole Pipe & Equipment, L.P., we submit the following comments, which urge the Department to exclude finished drill pipe (with tool joints attached) from any action suggested pursuant to its investigation.

Downhole Pipe’s experience is with oil and gas pipe and equipment generally, with significant experience with imported and domestically-sourced drill pipe. Because steel pipe for the oil and gas industry was mentioned in the public hearing, Downhole Pipe submits these comments to provide some insight into the oil & gas industry and to strongly urge the
Department of Commerce to exclude finished drill pipe from any action it recommends as a result of this section 232 investigation.

In these comments, we first define drill pipe in the context of the production process of drill pipe; second, we discuss the classification of drill pipe under the Harmonized Tariff Schedule of the United States; third, we discuss some history of trade remedies actions (antidumping and countervailing duty (“AD/CVD”) actions involving drill pipe); fourth, we discuss the U.S. market for drill pipe; fifth, we discuss the U.S. market for the main input into drill pipe – seamless tube blanks called “green tube”; finally, we offer a conclusion and suggestion to exclude drill pipe from any national-security-motivated trade action, but perhaps include green tube.

**Drill pipe production & the definition of “drill pipe.”**

The term “drill pipe” can be understood to apply to drill pipe at various stages of production. Drill pipe production begins with raw steel inputs and alloying elements (such as molybdenum and chromium) which is formed into alloy steel bars. The steel bars are pierced or extruded to form seamless steel tubes with a 2 ½ inch – 6 ½ inch diameter. These seamless tubes are generally referred to as “green tube,” but may also be called “unfinished drill pipe” or (less frequently) even “drill pipe.”

The green tube is further processed by “upsetting” and “heat treating.” Upsetting is a process in which the ends of the green tube are heated and forced into a press to cause the ends to be thicker than the rest of the tube. Heat treatment is a process applied after upsetting where the whole tube is heated and cooled so that the microstructure of the steel, and consequently its hardness and toughness properties, are uniform throughout the tube. At this point, the upset and heat treated green tube is generally called “semi-finished drill pipe,” but is also called “drill pipe.”
The next step in the production process is to attach tool joints to each end. Tool joints are connectors that allow multiple drill pipes to be screwed together (like a light bulb screws into a socket). To one end of the semi-finished drill pipe, the socket-side (called “box”) tool joint is attached; and to the other end, the inserting-side (called “pin”) tool joint is attached. Each drill pipe has pin tool joint on one end and a box tool joint on the other end, thus, each drill pipe can be connected to other drill pipes at each end. The pin and box tool joints are attached by friction welding to the thickened (upset) ends. The ends are then heat treated again to ensure uniformity of hardness and toughness properties. The completed product is called “drill pipe,” “finished drill pipe” or “drill pipe with tool joints attached.” Finished drill pipe generally is about 33 feet long.

Finished drill pipe are connected together into drill strings that serve two functions: (1) the drill string conducts the twisting drilling force from the rotary drilling motor on the earth’s surface to the drill bit that may be a few miles underground, and (2) the drill string carries drilling fluids from the surface to the drill bit (to move dirt away from the drill bit as it loosens and drills through earth). Besides drill pipe, the drill string includes a drill bit at the bottom, followed by drill collars or heavy-weight drill pipe (which put weight and pressure on the drill bit to improve its drilling function), and finally up to twenty-plus thousand feet of drill pipe. Drilling companies connect hundreds of drill pipe together (up to 600+, or 20,000+ total feet) as they drill for oil and gas for miles below the earth’s surface. Strength and reliability are key aspects of drill pipe, because if a drill pipe underperforms or breaks while drilling, it can cause millions of dollars in losses and delays.

The U.S. drill-pipe-producing industry is split into two groups: green tube producers and finishing processors. The key aspect of green tube producers is their production of alloy steel bars and conversion of alloy steel bar into seamless alloy steel tubes. Some green tube producers
also may upset and heat treat the green tube. The key aspect of finishing processors is attaching tool joints by friction welding. Some finishing processors also upset and heat treat green tube. Drill pipe finishing processors also may include additional processing such as coating the inside of the tube to improve the flow of drilling liquids inside the pipe, hard-banding (welding on metal bands to the outside of the drill pipe) to increase the life of the drill pipe.

It is common knowledge in the industry that the U.S. drill pipe market is dominated by U.S. drill pipe companies, Grant Prideco and VAM Drilling. Grant Prideco and VAM Drilling have corporate affiliations that allow a vertical integration from green tube production through drill pipe finishing, although the two stages are completed at different facilities, with green tube generally produced in overseas locations.

HTSUS Classification of drill pipe.

Because the term “drill pipe” is used to describe the pipe at different stages of production, there historically has been some confusion about the proper classification of drill pipe under the Harmonized Tariff Schedules of the United States (“HTSUS”). Further, although there are a few specific HTSUS categories that are the proper categories for classifying drill pipe imports, the variances in classification are also in part because green tube suitable for drill pipe is identical or very similar to pipe used in other oil and gas drilling and extracting contexts (specifically, oil country tubular goods (“OCTG”) casing and tubing, and also line pipe), and is visually indistinguishable from many other types of metal pipes.

Green tube, semi-finished drill pipe, and finished drill pipe with tool joints attached have all been classified as “drill pipe” under HTSUS 7304.23 (and its predecessors), which includes “Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel: Casing, tubing and drill pipe, of a kind used in drilling for oil or gas: Drill pipe: Other drill pipe [not of stainless steel].” This HTSUS classification describes most seamless pipe that is or will become
finished drill pipe with tool joints attached. Another specific HTSUS category that generally is used for finished drill pipe with tool joints attached is HTSUS 8431.43.80.40, which includes “Parts suitable for use solely or principally with the machinery of headings 8425 to 8430: Of machinery of heading 8426, 8429 or 8430: Parts for boring or sinking machinery of subheading 8430.41 or 8430.49: Other: Of oil and gas field machinery: **Drill pipe fitted with tool joints.**” Proper classification of finished drill pipe with tool joints attached under HTSUS 8431.43.80.40 has improved in recent years.

**History of trade remedies actions involving drill pipe.**

The oil and gas industry has been a frequent target of trade remedies actions, with several antidumping and countervailing duty orders in place for *Oil Country Tubular Goods*, or OCTG (including casing and tubing) and line pipe. Finished drill pipe has been specifically excluded from trade remedies actions covering OCTG, but green tube used in drill pipe production has been included with OCTG in some trade-remedies actions because it is identical or very similar in chemistry and physical properties to green tube used to produce casing and tubing. And a recent antidumping and countervailing duty investigation into drill pipe from China found that the imported drill pipe did not cause or threaten to cause material injury to the U.S. domestic drill pipe industry.

In 2010, the U.S. International Trade Commission (“ITC”) investigated drill pipe from China to determine whether drill pipe imported from China was causing material injury, or threatening to cause material injury to the U.S. domestic drill pipe industry. The ITC found that imports of drill pipe from China did not cause material injury to the United States. After litigation about what economic data meant, the ITC also found that imports of drill pipe from China did not threaten material injury. In the investigation, “drill pipe” was defined to include green tube, semi-finished drill pipe, and finished drill pipe with tool joints attached.

--- www.AntidumpingDefense.com ---
The market for drill pipe in the United States.

The drill pipe market is highly cyclical, and is directly correlated with the prices of oil and gas, and the number of active drilling rigs. Simply put, when the price of oil is higher than the cost of extraction, there is an economic incentive to drill for oil & gas. For example, in 2007-2008 and in 2012-2013, when the price of oil spiked to $100/barrel and beyond, there were corresponding spikes in drilling activity and, thus, spikes in demand for finished drill pipe. Although drilling used to be economic only when oil was about $50/barrel, U.S. oil & gas companies have improved drilling efficiencies such that for many companies, drilling is still economic at about $20/barrel.

In the 2010 antidumping and countervailing duty investigations into drill pipe from China (which reviewed imports and economic factors from 2007-2010), the U.S. International Trade Commission found that imports increase when demand increases, and imports decline when demand declines – losing market share to the U.S. domestic industry. Downhole Pipe participated in that investigation, and explained that demand for imports increases when domestic producers cannot produce drill pipe fast enough to satisfy demand. But even with increased imports, U.S. domestic finished drill pipe producers still dominate the market and profitability is at its peak. The primary reason is a reliability issue: U.S. drillers trust drill pipe produced in the United States over drill pipe produced outside the United States.

Import data from the ITC DataWeb establishes that nothing has changed over the several years since the antidumping and countervailing duty investigations into drill pipe from China. When the price of oil rose to about $100/barrel from 2011 to 2015, imports of drill pipe (HTS 7304.23) and drill pipe with tool joints attached (8431.43.80.40) increased significantly, but only in 2015, and the increase in imports was temporary. Imports only increase significantly when U.S. domestic production cannot keep up with demand. Thus, when imports dropped in 2008
2009 when oil prices dropped, drilling activity recovered relatively quickly – by 2011, but imports only spiked in 2012 and – to a lesser degree in 2013 – when domestic sources couldn’t keep up with demand. When the price of oil began dropping in 2014, and drilling activity tapered off, imports essentially dried up. And even though the price of oil has risen and hovered around $50/barrel, and the number of active drilling rigs has more than doubled over the last year to over 900, imports remain low because the domestic industry has been able to keep up with demand.

During years when imports were the highest, the U.S. domestic finishing processors had banner years in both production and financial terms. And when imports are lowest, the U.S. domestic finishing processors continue to dominate the market and produce finished drill pipe without significant competition from imports.

Another market segmentation is the size of the customers. The largest customers of finished drill pipe almost exclusively buy from the U.S. domestic producers. With the largest drilling contractors as high-volume customers, domestic producers easily control the majority of the U.S. drill pipe market share. Moreover, in the 2010 investigation, it was reported that 10 of 28 U.S. purchasers of drill pipe purchase only U.S. produced drill pipe. The primary concern is quality, and U.S. drilling contractors trust U.S. produced drill pipe.

The market for green tube in the United States.

For green tube producers, the story may be different. U.S. green tube producers face significant competition for sales to the largest finished drill pipe producers because of the vertical integration that Grant Prideco and VAM Drilling enjoy – with Grant Prideco importing green tube from VoestAlpine Tubulars (Austria) and possibly other domestic and international affiliated facilities; and VAM Drilling importing green tube from V&M Tube mills in France, Germany, Brazil, in addition to small-diameter green tube it obtains from the V&M Tube mill in
Youngstown, Ohio. Thus, although U.S. finished drill pipe producers dominate the U.S. and even global markets and are not materially affected by imports of finished drill pipe into the United States, U.S. producers of green tube.

**Conclusion & Recommendation**

The final outcome of the 2010 found that the combined imports of finished drill pipe and green tube from China were not causing material injury or to threatening to cause material injury to the U.S. finished drill pipe and green tube industries. But the 2010 AD/CVD investigation focused on China, and did not analyze green-tube imports from Austria, Germany, France, or Brazil. Thus, to the extent any action is needed for national security related to U.S. steel producers associated with the drill pipe industry, the need would exist only with green tube production, not with finished drill pipe. Accordingly, Downhole Pipe urges the Department to exclude finished drill pipe (with tool joints attached) from any trade-related action against steel for national security purposes under section 232.

**Summary answers to specific questions**

(a) **Quantity of steel or other circumstances related to the importation of steel**

As described above, imports of finished drill pipe increase only when U.S. domestic producers cannot keep up with demand for finished drill pipe. Green tube imports are difficult to isolate in import data, but more closely follow demand trends seen in the number of active drilling rigs.

(b) **Domestic production and productive capacity needed for steel to meet projected national defense requirements**;

Drill pipe is not used in the production of military equipment. U.S. production of finished drill pipe (with tool joints attached) dominates the U.S. industry. U.S. production of
green tube may be more sensitive to imports of green tube from Austria, Brazil, France, and Germany.

(c) Existing and anticipated availability of human resources, products, raw materials, production equipment, and facilities to produce steel;

There are domestic U.S. green tube production facilities, and abundant U.S. finishing processor facilities. The world leaders in drill pipe finishing are U.S. companies, NOV Grant Prideco and VAM Drilling. They are world leader in drilling technology and innovation. In other words, American innovation, manufacturing know-how, skilled labor, and facilities enjoy strong market dominance without significant threat from imports.

Green tube inputs into drill pipe come from multiple sources. NOV Grant Prideco has corporate affiliate in Austria; VAM Drilling has corporate affiliates in Brazil, France, Germany, and Youngstown, Ohio. There are other U.S. manufacturers of green tube, such as TMK IPSCO, but their share of green tube supply to the U.S. market is not public.

(d) Growth requirements of the steel industry to meet national defense requirements and/or requirements to assure such growth;

Drill pipe is not used in the production of military equipment. To the extent that the oil & gas industry is a strategic industry, the drill pipe industry grows and contracts with the price of oil and consequent drilling activity in the United States. The sensitivity of green tube to the market and imports is unknown, but U.S. supply of finished drill pipe is robust and is the world leader.

(e) The impact of foreign competition on the economic welfare of the steel industry;

Because finished drill pipe imports are limited, and only increase when demand is high and U.S. finishing processors cannot keep up with demand (when delivery times are extended and do not allow drillers to drill at the level of economic demand for oil), imports of finished drill pipe have a negligible effect, if any on the economic welfare of the U.S. steel industry.
Given the apparent importance of green tube imports for the dominant U.S. finished-drill-pipe producers, green tube import may affect the economic welfare of the U.S. steel industry.

(f) The displacement of any domestic steel causing substantial unemployment, decrease in the revenues of government, loss of investment or specialized skills and productive capacity, or other serious effects;

As the ITC found in the 2010 investigation of drill pipe from China, imports of drill pipe and of green tube, collectively, did not cause present injury to the U.S. drill pipe industry (a combination of green tube producers and finishing processors). Even when the industry was in a cyclical downturn, imports of green tube and finished drill pipe from China did not threaten material injury because, as demand for drill pipe declined, imports decreased also. Imports of green tube from Austria, Brazil, France, and Germany, however, may displace domestic steel production, causing unemployment, decreases in revenue, loss of investment or specialized skills and productive capacity, etc.

(g) The displacement of any domestic steel causing substantial unemployment, decrease in the revenues of government, loss of investment or specialized skills and productive capacity, or other serious effects;

[h] Relevant factors that are causing or will cause a weakening of our national economy; and

The only relevant factor that can cause a weakening of the national economy is severely depressed commodity prices for oil and gas, such that drilling for oil & gas cannot be done in a reasonably economic manner. Because many drilling companies profitably drill for oil when oil prices are above $20/barrel, this means that only an energy-industry disrupting innovation could weaken the national economy in terms of drilling companies and the collateral effects on steel producers. In such an event, however, it is a near certainty that another U.S. industry would rise from the ashes of the U.S. steel industry.
Imports of green tube from Austria, Brazil, France, and Germany, however, may have weakened, and maintain weak, U.S. steel industry production of green tube.

(i) **Any other relevant factors.**

The economics of the oil and gas industry drive all relevant aspects related to drill pipe. Green tube imports, however, may have independent effects on the U.S. steel industry. Because this information is not publicly available, the Department is best positioned to assess whether green tube imports affect sensitive U.S. steel capacities.

Respectfully submitted,

Mark B. Lehnardt, Esq.*
Antidumping Defense Group, LLC

*Counsel to Downhole Pipe & Equipment, L.P.*

*Practice in Washington, D.C., is limited to matters and proceedings before U.S. federal courts and agencies.*
ATTACHMENTS

1. Drill Pipe Production – Diagram
2. HTSUS 7304.23
3. HTSUS 8431.43.80.40
5. USITC DataWeb - imports of “drill pipe” under HTSUS 7304.23 (2007-2016)
6. USITC DataWeb - imports of “drill pipe with tool joints attached” under HTSUS 8431.43.80.40
7. NOV Grant Prideco Information
8. VAM Drilling Information
1. Drill Pipe Production – Diagram
2. HTSUS 7304.23
<table>
<thead>
<tr>
<th>Heading/Subheading</th>
<th>Stat. Suffix</th>
<th>Article Description</th>
<th>Unit of Quantity</th>
<th>Rates of Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>7304 (con.)</td>
<td></td>
<td>Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel: (con.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7304.22.00</td>
<td></td>
<td>Casing, tubing and drill pipe, of a kind used in drilling for oil or gas:</td>
<td>Free</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drill pipe of stainless steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7304.22.00</td>
<td></td>
<td>Having an outside diameter not exceeding 168.3 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having a wall thickness not exceeding 9.5 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>7304.23.30</td>
<td>00</td>
<td>Of iron or nonalloy steel</td>
<td>kg</td>
<td>Free</td>
</tr>
<tr>
<td>7304.23.60</td>
<td></td>
<td>Other drill pipe:</td>
<td>kg</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Of alloy steel</td>
<td></td>
<td>35%</td>
</tr>
<tr>
<td>7304.23.60</td>
<td></td>
<td>Having an outside diameter not exceeding 168.3 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having a wall thickness not exceeding 9.5 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>7304.24</td>
<td></td>
<td>Other, of stainless steel:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Casing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7304.24.30</td>
<td></td>
<td>Threaded or coupled</td>
<td>Free</td>
<td>28%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having an outside diameter less than 215.9 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having a wall thickness less than 12.7 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having a wall thickness of 12.7 mm or more:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having an outside diameter of 215.9 mm or more but not exceeding 285.8 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having a wall thickness less than 12.7 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>7304.24.30</td>
<td></td>
<td>Having an outside diameter exceeding 285.8 mm but not exceeding 406.4 mm:</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Having an outside diameter exceeding 406.4 mm:</td>
<td>kg</td>
<td></td>
</tr>
</tbody>
</table>
3. HTSUS 8431.43.80.40
<table>
<thead>
<tr>
<th>Heading/Subheading</th>
<th>Stat. Suffix</th>
<th>Article Description</th>
<th>Unit of Quantity</th>
<th>Rates of Duty</th>
</tr>
</thead>
<tbody>
<tr>
<td>8431</td>
<td></td>
<td>Parts suitable for use solely or principally with the machinery of headings 8425 to 8430:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8431.10.00</td>
<td></td>
<td>Of machinery of heading 8425:</td>
<td>Free</td>
<td>35%</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Of machinery of subheading 8425.11 or 8425.19:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
<td>Other:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8431.20.00</td>
<td>00</td>
<td>Of machinery of heading 8427:</td>
<td>X,............</td>
<td>Free</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Of machinery of heading 8428:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8431.31.00</td>
<td></td>
<td>Of passenger or freight elevators other than continuous action, skip hoists or escalators:</td>
<td>Free</td>
<td>35%</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Of skip hoists:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>Of escalators:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>Other:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8431.39.00</td>
<td></td>
<td>Other:</td>
<td>Free</td>
<td>35%</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Of elevators and conveyors:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>Other:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>70</td>
<td></td>
<td>Of the woodland log handling equipment of statistical reporting number 8428.90.0210:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>Other:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>8431.41.00</td>
<td></td>
<td>Of machinery of heading 8426, 8429 or 8430:</td>
<td>Free</td>
<td>35%</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Buckets, shovels, grabs and grips:</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>Shovel attachments:</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>Clamshell (grappler) attachments:</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td>Other:</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td>8431.42.00</td>
<td>00</td>
<td>Bulldozer or angledozer blades:</td>
<td>No............. Free</td>
<td>35%</td>
</tr>
<tr>
<td>8431.43</td>
<td></td>
<td>Parts for boring or sinking machinery of subheading 8430.41 or 8430.49:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8431.43.40</td>
<td>00</td>
<td>Of offshore oil and natural gas drilling and production platforms:</td>
<td>X,............</td>
<td>Free</td>
</tr>
<tr>
<td>8431.43.80</td>
<td></td>
<td>Of machinery of heading 8426, 8429 or 8430:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Of oil and gas field machinery:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tool joints, whether or not forged:</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drill pipe fitted with tool joints:</td>
<td>No.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other:</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Of other boring or sinking machinery:</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
Weekly Price of Oil Per Barrel at Cushing, Oklahoma

https://www.eia.gov/opendata/qb.php?sid=PET.RWT.C.0
Source: U.S. Energy Information Administration

Active Drilling Rigs in the United States


Imports of "Drill Pipe with Tool Joints Attached" (number) - HTSUS 8431.31

Source: U.S. International Trade Commission DataWeb

Imports of "Drill Pipe" (kg) - HTSUS 7304.23 - 2007-2016

Source: U.S. International Trade Commission DataWeb
5. USITC DataWeb - imports of “drill pipe with tool joints attached” under HTSUS 8431.43.80.40
6. USITC DataWeb - imports of “drill pipe” under HTSUS 7304.23 (2007-2016)
ϵϮ͕ϬϵϬ͕ϰϰϲ

ϲϵ͕ϱϭϭ͕ϲϴϭ ϭϬϳ͕ϴϵϳ͕ϵϯϬ ϭϰϰ͕ϯϭϬ͕ϳϭϬ

ϵϮ͕ϱϱϳ͕ϵϰϯ ϭϱϱ͕ϵϱϴ͕Ϯϲϲ

Ϭ

ϮϬ͕ϬϬϬ͕ϬϬϬ

ϰϬ͕ϬϬϬ͕ϬϬϬ

ϲϬ͕ϬϬϬ͕ϬϬϬ

ϴϬ͕ϬϬϬ͕ϬϬϬ

ϭϬϬ͕ϬϬϬ͕ϬϬϬ

ϭϮϬ͕ϬϬϬ͕ϬϬϬ

ϭϰϬ͕ϬϬϬ͕ϬϬϬ

ϭϲϬ͕ϬϬϬ͕ϬϬϬ

ϭϴϬ͕ϬϬϬ͕ϬϬϬ

ϮϬϬϳ

ϮϬϬϴ

ϮϬϬϵ

ϮϬϭϬ

ϮϬϭϭ

zĞĂƌ

ϮϬϭϮ

ϮϬϭϯ

/ŵƉŽƌƚƐŽĨƌŝůůWŝƉĞ;ŬŐͿͲ ,d^h^ϳϯϬϰ͘ϮϯͲ ϮϬϬϳͲϮϬϭϲ

^ŽƵƌĐĞƐ͗ĂƚĂŽŶƚŚŝƐƐŝƚĞŚĂǀĞďĞĞŶĐŽŵƉŝůĞĚĨƌŽŵƚĂƌŝĨĨĂŶĚƚƌĂĚĞĚĂƚĂĨƌŽŵƚŚĞh͘^͘ĞƉĂƌƚŵĞŶƚŽĨŽŵŵĞƌĐĞĂŶĚƚŚĞh͘^͘/ŶƚĞƌŶĂƚŝŽŶĂůdƌĂĚĞŽŵŵŝƐƐŝŽŶ͘

ϭϯϭ͕ϭϱϴ͕ϯϲϳ ϭϱϱ͕Ϭϭϱ͕ϲϭϭ

ϮϬϭϰ

ϲϬ͕Ϭϯϳ͕ϬϯϬ

ϮϬϭϱ

ϯϬ͕ϵϯϰ͕ϯϰϴ

ϮϬϭϲ

ϭϱ͕ϱϭϳ͕ϯϮϰ

ϱ͕ϭϴϵ͕ϴϮϱ

YƵĂŶƚŝƚǇ
ϮϬϬϳ
ϮϬϬϴ
ϮϬϬϵ
ϮϬϭϬ
ϮϬϭϭ
ϮϬϭϮ
ϮϬϭϯ
ϮϬϭϰ
ϮϬϭϱ
ϮϬϭϲ
ϮϬϭϲzd ϮϬϭϳzd
WĞƌĐĞŶƚŚĂŶŐĞ
ĞƐĐƌŝƉƚŝŽŶ
zdϮϬϭϲͲzdϮϬϭϳ
ƌŐĞŶƚŝŶĂ
ŬŝůŽŐƌĂŵƐ
ϰϮϰ͕ϭϵϵ
Ϯϳ͕ϳϮϰ
ϰϯϯ
ϴϮ͕Ϭϳϵ
ϱϭ͕ϳϳϱ ϭ͕ϱϰϮ͕ϱϰϮ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
ƵƐƚƌĂůŝĂ
ŬŝůŽŐƌĂŵƐ
ϰ͕ϯϬϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϭ͕ϴϵϱ
Ϭ
ϯϴ
Eͬ
ƵƐƚƌŝĂ
ŬŝůŽŐƌĂŵƐ
ϳϯ͕ϴϳϬ͕Ϭϱϰ ϲϳ͕ϴϬϴ͕Ϭϭϴ Ϯϵ͕ϴϲϬ͕ϮϬϮ ϱϬ͕ϯϰϬ͕ϵϱϱ ϴϯ͕ϱϯϬ͕ϲϭϮ ϵϯ͕ϴϭϵ͕ϯϮϬ ϱϵ͕ϱϰϵ͕ϵϭϱ ϳϬ͕ϲϭϯ͕ϴϴϳ Ϯϴ͕ϱϱϵ͕ϴϭϬ ϭϴ͕ϲϮϲ͕ϯϰϱ ϭϮ͕ϲϰϮ͕ϵϯϴ ϯ͕Ϭϲϱ͕ϴϭϮ
Ͳϳϱ͘ϴϬй
ƌĂǌŝů
ŬŝůŽŐƌĂŵƐ
ϱ͕ϯϴϳ͕ϲϳϵ
ϵϱϭ͕ϬϮϳ
ϴϬϬ͕ϯϳϲ
ϯϲϮ͕ϭϳϯ
Ϭ
ϱϯϵ͕ϯϯϰ
ϵϳϰ͕Ϭϵϵ ϯ͕ϵϭϭ͕ϱϬϮ
ϭϱϰ͕ϴϬϮ
ϳϬϰ͕ϯϰϵ
ϴϬ͕ϵϭϱ
Ϭ
ͲϭϬϬ͘ϬϬй
ĂŶĂĚĂ
ŬŝůŽŐƌĂŵƐ
ϯϴϰ͕ϬϴϬ Ϯ͕ϰϱϰ͕ϱϱϳ
ϱϳ͕ϴϭϳ
ϴϭ͕ϯϲϱ
ϭϯϮ͕ϰϴϮ
ϮϴϮ͕ϯϲϭ
Ϯϴϱ͕ϰϴϴ
ϵϱ͕ϱϱϱ
ϯϳϱ͕ϳϵϬ
ϭϯϮ͕ϭϳϵ
Ϯ͕ϲϳϱ
ϭϬ͕ϮϬϮ
Ϯϴϭ͘ϰϬй
ŚŝůĞ
ŬŝůŽŐƌĂŵƐ
ϲ͕ϱϬϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
ŚŝŶĂ
ŬŝůŽŐƌĂŵƐ
ϯϭ͕Ϯϵϯ͕ϯϴϬ ϯϳ͕ϵϰϰ͕ϴϭϰ ϰϲ͕ϵϵϰ͕ϭϯϯ ϵ͕ϴϮϯ͕ϯϯϲ ϰ͕ϲϳϱ͕ϭϱϭ ϱ͕ϵϵϴ͕ϱϴϮ ϯ͕Ϯϱϭ͕ϳϱϱ Ϯ͕ϮϯϮ͕ϴϵϰ ϯ͕ϲϬϳ͕ϱϴϵ Ϯ͕Ϭϰϱ͕ϴϰϰ
ϭϱϳ͕ϱϮϰ ϲϭϭ͕ϱϰϰ
Ϯϴϴ͘ϮϬй
ŽůŽŵďŝĂ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
ϭϱϱ͕ϳϴϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
ǌĞĐŚZĞƉƵďůŝĐ ŬŝůŽŐƌĂŵƐ
ϮϳϮ͕Ϭϲϭ
Ϭ
Ϭ ϭ͕Ϯϱϴ͕ϵϭϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
ĞŶŵĂƌŬ
ŬŝůŽŐƌĂŵƐ
Ϭ
ϯϬϭ͕ϲϲϱ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
&ŝŶůĂŶĚ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϳϮ͕ϲϬϬ
Ϭ
ϵϰ
Ϭ
Ϭ
Eͬ
&ƌĂŶĐĞ
ŬŝůŽŐƌĂŵƐ
ϯ͕Ϯϳϲ͕ϴϴϳ ϵ͕ϰϬϳ͕ϳϬϳ ϯ͕ϲϱϳ͕ϵϴϮ ϭ͕ϬϬϳ͕ϱϯϳ ϳ͕ϳϰϴ͕ϯϵϬ ϴ͕ϭϴϭ͕Ϯϲϱ Ϯ͕ϰϵϯ͕ϭϱϴ ϴ͕ϴϳϳ͕ϰϵϰ
ϵϵϵ͕ϲϲϳ Ϯ͕ϰϰϬ͕ϴϮϬ ϭ͕ϰϳϱ͕ϲϮϴ ϭϬϯ͕ϵϭϰ
Ͳϵϯ͘ϬϬй
'ĞƌŵĂŶǇ
ŬŝůŽŐƌĂŵƐ
ϭϭ͕ϰϳϳ͕ϵϮϱ ϯϮ͕ϯϵϯ͕ϯϵϯ ϱ͕ϴϲϵ͕ϴϴϬ Ϯ͕ϵϳϴ͕ϬϴϬ ϴ͕ϴϰϴ͕Ϭϳϲ ϭϰ͕ϳϮϳ͕ϳϭϲ ϭϱ͕ϯϵϰ͕ϱϯϰ ϭϯ͕ϭϲϲ͕ϭϲϴ ϭϮ͕ϱϭϵ͕ϴϯϴ ϱ͕ϱϱϮ͕ϳϵϭ
ϱϭϭ͕ϴϮϭ
Ϯ͕ϵϴϬ
Ͳϵϵ͘ϰϬй
/ŶĚŝĂ
ŬŝůŽŐƌĂŵƐ
ϮϱϮ͕Ϯϴϳ
ϰϰϭ͕ϳϬϭ ϭ͕ϰϵϰ͕ϲϬϬ
ϳϮϰ͕ϴϲϭ
ϯϱϳ͕ϮϲϬ ϵ͕ϬϮϳ͕ϬϱϬ Ϯ͕ϳϵϯ͕ϯϬϲ ϲ͕ϴϱϳ͕ϮϭϮ ϭ͕ϲϬϳ͕Ϯϲϴ
ϯϱϭ͕Ϭϳϳ
ϲϬ͕ϬϬϰ
ϯϲ͕ϴϴϲ
Ͳϯϴ͘ϱϬй
/ŶĚŽŶĞƐŝĂ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
ϮϮϳ͕ϬϰϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
/ƚĂůǇ
ŬŝůŽŐƌĂŵƐ
ϱϬ͕ϲϮϬ
Ϭ
ϭϭ͕ϲϴϳ
Ϭ
ϭϴϳ͕ϰϯϵ
ϯ͕Ϭϲϳ
ϲ͕ϯϯϵ
ϰϯϴ͕ϴϮϱ ϭ͕ϬϯϮ͕ϴϮϱ
Ϭ
Ϭ
Ϭ
Eͬ
:ĂƉĂŶ
ŬŝůŽŐƌĂŵƐ
ϱ͕ϳϰϱ
ϯϭ͕ϱϲϯ
Ϭ
ϱϰϬ͕Ϭϱϵ
ϱϵϰ͕ϱϭϬ ϰ͕ϮϬϴ͕Ϭϭϱ
ϱϬϮ͕Ϯϴϳ
ϳϭ͕ϬϬϰ
Ϭ
ϭ͕ϴϱϲ
Ϭ
Ϭ
Eͬ
<ŽƌĞĂ
ŬŝůŽŐƌĂŵƐ
ϰϳϳ
Ϭ
Ϯϱ͕ϯϭϬ
Ϭ
Ϭ
ϲϯ͕Ϭϱϭ ϭ͕ϮϴϬ͕ϴϰϳ ϭϬ͕ϳϱϳ͕ϱϴϬ ϯ͕ϯϰϭ͕Ϭϳϴ
ϳϰ͕ϭϬϱ
ϳϯ͕ϵϴϬ
Ϭ
ͲϭϬϬ͘ϬϬй
DĂůĂǇƐŝĂ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϳ͕ϲϴϳ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
DĞǆŝĐŽ
ŬŝůŽŐƌĂŵƐ
Ϯ͕ϰϭϲ͕ϯϳϰ ϭ͕ϵϳϭ͕ϵϰϭ
ϴϳϯ͕ϬϮϬ
ϳϴϳ͕ϯϭϱ
Ϯϳϯ͕ϵϯϮ
Ϭ ϰ͕Ϭϭϱ͕ϯϱϵ ϯϳ͕ϮϮϬ͕ϳϬϴ ϳ͕ϲϳϯ͕ϱϭϳ
ϵϲϭ͕ϱϵϳ
ϱϬϬ͕ϴϭϲ ϭ͕Ϯϵϳ͕ϱϲϮ
ϭϱϵ͘ϭϬй
EŽƌǁĂǇ
ŬŝůŽŐƌĂŵƐ
ϲ͕ϮϮϰ
ϲϮϳ
ϭϬ͕ϮϰϮ
ϭ͕ϭϲϬ
Ϯ͕ϱϵϯ
ϭ͕ϭϱϴ
Ϭ
Ϭ
Ϭ
ϭ͕ϯϬϴ
Ϭ
Ϭ
Eͬ
WŚŝůŝƉƉŝŶĞƐ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϯϰϱ͕ϱϯϳ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
ZƵƐƐŝĂ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ ϯ͕ϬϬϴ͕Ϯϵϱ
ϱϳϬ͕ϭϵϬ ϭ͕ϱϲϲ͕ϭϲϬ
ϭϯϮ͕ϱϱϭ
ϵϭ
Ϭ
Ϭ
Eͬ
^ĂƵĚŝƌĂďŝĂ
ŬŝůŽŐƌĂŵƐ
ϯϬϬ͕ϬϬϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
^ŝŶŐĂƉŽƌĞ
ŬŝůŽŐƌĂŵƐ
ϭ͕ϱϳϴ͕Ϯϰϱ
ϱϴ͕ϲϴϬ
ϱϮϳ͕ϳϰϬ
Ϯ͕ϮϱϬ ϭ͕Ϭϳϴ͕ϴϴϰ
ϰ͕ϰϮϱ
ϵ͕ϱϯϰ
ϳ͕ϳϱϰ
ϰ͕ϭϮϬ
ϯϳ͕ϰϭϳ
ϴ͕ϴϬϳ
Ϭ
ͲϭϬϬ͘ϬϬй
^ƉĂŝŶ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
ϭϴϬ͕Ϭϰϳ
Ϭ
Ϭ
Ϭ
ϰ͕ϭϬϱ
ϭ͕Ϭϯϴ
Ϭ
Ϭ
Ϭ
Eͬ
^ƵƌŝŶĂŵĞ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϭϴϵ͕ϱϮϮ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
^ǁĞĚĞŶ
ŬŝůŽŐƌĂŵƐ
Ϯϰ͕ϴϮϵ
ϯϬ͕ϵϭϱ
ϭϵ͕ϴϬϭ
ϮϬ͕ϴϮϮ
ϱ͕ϵϭϵ
Ϭ
ϱ͕ϵϭϲ
ϯ͕ϭϱϱ
ϭϱ͕ϲϮϳ
Ϭ
Ϭ
Ϭ
Eͬ
^ǁŝƚǌĞƌůĂŶĚ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϭϰϲ͕ϰϬϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
dŚĂŝůĂŶĚ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϯϳϲ͕ϭϰϰ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
hŬƌĂŝŶĞ
ŬŝůŽŐƌĂŵƐ
ϭϭϬ͕ϯϲϱ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
hŶŝƚĞĚƌĂďŵ ŬŝůŽŐƌĂŵƐ
Ϭ ϭ͕ϬϴϮ͕ϱϴϲ ϭ͕ϰϰϯ͕Ϭϳϭ
ϭϭϲ͕ϲϲϬ
ϮϵϮ͕ϴϯϳ
ϰϴ͕ϳϬϴ ϭ͕Ϯϳϰ͕ϲϵϲ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ
hŶŝƚĞĚ<ŝŶŐĚŽŵ ŬŝůŽŐƌĂŵƐ
ϭϲ͕ϭϯϲ
ϭϬϴ͕ϲϵϯ
Ϯϭϳ͕ϭϭϮ ϭ͕Ϭϰϴ͕Ϯϵϭ
ϭϭϴ͕ϬϳϬ ϭ͕ϴϱϲ͕Ϭϯϴ
ϰ͕ϭϮϬ
ϱϯ͕ϵϳϲ
ϭϭ͕ϱϭϬ
Ϯ͕ϱϴϬ
Ϯ͕Ϯϭϲ
ϲϬ͕ϴϴϳ
Ϯϲϰϳ͘ϲϬй
sŝĞƚŶĂŵ
ŬŝůŽŐƌĂŵƐ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
ϭϴϴ͕ϱϴϬ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Ϭ
Eͬ

ŽƵŶƚƌǇ

ŶŶƵĂůнzĞĂƌͲdŽͲĂƚĞĂƚĂĨƌŽŵ:ĂŶͲDĂƌ

h͘^͘/ŵƉŽƌƚƐĨŽƌŽŶƐƵŵƉƚŝŽŶ

,d^ͲϳϯϬϰϮϯ͗Z/>>W/WK&</Eh^/EZ/>>/E'&KZK/>KZ'^͕K&/ZKE;yWd^d/ZKEͿKZ^d>͘E^
&ŝƌƐƚhŶŝƚŽĨYƵĂŶƚŝƚǇďǇŽƵŶƚƌǇEĂŵĞĂŶĚ&ŝƌƐƚhŶŝƚŽĨYƵĂŶƚŝƚǇ
ĨŽƌ>>ŽƵŶƚƌŝĞƐ

<'


7. NOV Grant Prideco Information
CONTENTS

CUSTOM-ENGINEERED PRODUCTS (CEP)
CEP Capabilities ..................................................................................................... 4-1
Slip-Proof® Drill Pipe ............................................................................................. 4-3
Landing Strings ................................................................................................. 4-4
Completion Drill Pipe ............................................................................................. 4-5
Intervention Risers ............................................................................................... 4-6

HEAVYWEIGHT DRILL PIPE (HWDP)
Standard HWDP ..................................................................................................... 5-2
Tri-Spiral™ HWDP ............................................................................................... 5-4
Spiral-Wate® HWDP ............................................................................................. 5-6
HWDP Features and Options .................................................................................... 5-8
HWDP Grades ......................................................................................................... 5-9

DRILL COLLARS & DRILL STEM ACCESSORIES
Slick Drill Collars ..................................................................................................... 6-1
Spiral Drill Collars ................................................................................................. 6-1
Pony Collars .......................................................................................................... 6-2
Slip and Elevator Recesses ...................................................................................... 6-3
Material Grades ..................................................................................................... 6-4
Pup Joints ............................................................................................................. 6-9
Subs ................................................................................................................... 6-10
Rotary Kellys ........................................................................................................ 6-12
Thread Protectors .................................................................................................. 6-13
Lift Subs and Lift Plugs ........................................................................................ 6-13
Features and Options ........................................................................................... 6-14
Care and Maintenance .......................................................................................... 6-16

SERVICE & SUPPORT
Technical Support ............................................................................................... 8-2
Field Support ........................................................................................................ 8-3
Internal Plastic Coating ......................................................................................... 8-4
Tool Joint Break-In Services (Make and Break) ......................................................... 8-4
Licensed Repair and Accessory Network ............................................................ 8-5
Training and Seminars ......................................................................................... 8-6
Grant Prideco Drilling Products & Services is the world's largest supplier of drill pipe and drill stem accessories. The division manufactures, sells and services a full range of proprietary and American Petroleum Institute (API) drill pipe, drill collars, heavyweight drill pipe, kellys, subs, pup joints and other drill stem accessories. Product quality and performance are optimized by Grant Prideco's unique vertical integration from mill to market, which helps to mitigate the potentially adverse effects of tight steel mill supplies and the associated rising costs of production and raw materials.

NOV Grant Prideco is the world's largest supplier of drill pipe and drill stem accessories. The division manufactures, sells and services a full range of proprietary and American Petroleum Institute (API) drill pipe, drill collars, heavyweight drill pipe, kellys, subs, pup joints and other drill stem accessories. Product quality and performance are optimized by Grant Prideco's unique vertical integration from mill to market, which helps to mitigate the potentially adverse effects of tight steel mill supplies and the associated rising costs of production and raw materials.

From the top-drive to the bit sub, whether manufacturing products to efficiently drill the simplest well, products for drilling in the harshest environments or that enable the drilling of world record wells, Grant Prideco Drilling Products & Services is the single source for all drill stem needs. Through innovative products, worldwide operations, expert engineering and design resources, sophisticated laboratories and a global repair network, Grant Prideco meets the demands of any tough drilling challenge.
Quality, Health, Safety and Environment (QHS&E) Policy

The long-term business success of Grant Prideco depends on the Company’s ability to continuously improve products and services, while protecting its people and the environments in which they work and live. This commitment is in the best interest of our employees and stockholders.

QHS&E is the responsibility of all employees, with the active commitment and support of management. Grant Prideco will facilitate this policy through the QHS&E Management System with the following objectives:

- Assure customer satisfaction by providing products and services that consistently meet the needs and expectations of our customers

- Protect the health and safety of our employees, customers and contractors

- Protect the environment and communities where we work and live by pollution prevention, waste minimization, wise use of natural resources and continual improvement

- Educate our customers, contractors, business partners and the public on the safe and environmentally responsible use of our products and services

- Recognize outstanding QHS&E performance by our employees

Grant Prideco is committed to the proactive integration of QHS&E objectives into management systems at all levels. The commitments in this policy are in addition to a basic obligation to comply with Grant Prideco standards, as well as all applicable laws and regulations where the Company operates. Compliance with this pledge is critical in order to reduce risks and add value to Grant Prideco’s products and services.
API and ISO Certifications
Where applicable, all Grant Prideco products meet or exceed the requirements and are manufactured in compliance with the latest edition of the following API standards:
- API Specification 5CT
- API Specification 5D
- API Specification 7
- API Recommended Practice 7G

In addition, where applicable, all Grant Prideco Drilling Products & Services manufacturing locations comply with the current requirements of the following:
- API Specification Q1
- ISO 9000 Series

Quality, Inspection Procedures and Traceability
Quality is the primary objective in every phase of Grant Prideco’s operations. The Quality Program is a dynamic one in which personnel at all levels strive toward customer satisfaction, continuous improvement and elimination of non-conformance.

Along with the day-to-day task of ensuring that standards are met, the Company continually refines its own internal standards. Manufacturing engineers are devoted to improving Grant Prideco’s process capabilities through:
- New innovative gauging methods
- Statistical process controls
- Improved supplier relationships and qualifications
- Automated measurement and data acquisition
- Careful analysis of each manufacturing process

The resulting efficiency and economy mean optimum product performance and cost savings to customers.

Additionally, Grant Prideco licenses repair facilities located throughout the world. To ensure that the highest possible performance and quality are maintained, a full-time audit department continuously communicates with licensees and provides support and manufacturing technology.

Rigid Inspection Procedures
Grant Prideco Drilling Products & Services fully inspects 100% of its products at each critical phase of the procurement and manufacturing process. Internal specifications that meet or exceed applicable API standards assure compliance of all products. All inspection results are recorded, maintained and made available for customer review.

Traceability
All product material and process traceability are maintained from receipt of mill-certified raw material to completion of manufacturing. Products are assigned serial numbers, and inspection and traceability records are made available for customer review.
NOV Grant Prideco
400 N. Sam Houston Parkway E.
Suite 900
Houston, Texas 77060
U.S.A.
PHONE: 281-878-8000
TOLL FREE: 866-472-6861

Sales Offices
U.S.A.
NOV Grant Prideco
Drilling Products & Services
400 N. Sam Houston Parkway E.
Suite 900
Houston, TX 77060
U.S.A.
Phone: 281-878-8000
Fax: 281-878-5736
Toll Free: 866-472-6861

CANADA
Grant Prideco Canada
Sun Life Plaza – West Tower
2700, 144-4th Avenue SW
Calgary, Alberta T2P 3N4
Phone: 403-571-2567
Fax: 403-705-1754
Toll Free: 866-774-7268

CHINA
Grant Prideco (Jiangsu) Drilling Products Company Ltd.
No. 1, Xibahe South Road, Room 2605
Golden Tower
Chaoyang District
Beijing
P.R. China 100028
Phone: 86-10-6440-3590/3599
Fax: 86-10-6440-3566
E-mail: Jingman.Zhao@GrantPrideco.com

EUROPE AND AFRICA
Grant Prideco
Suite C
1 St Swithin Row
Aberdeen, Scotland
AB10 6DL
Phone: 44-1224-597300
Fax: 44-1224-589420
Email: Andy.Devlin@GrantPrideco.com

FAR EAST, ASIA-PACIFIC, INDIA
Grant Prideco Singapore Ltd
No. 11 Tuas Avenue 7
Singapore 639266
Phone: 65-6861-4266
Fax: 65-6861-0117
E-mail: Guillaume.Plessis@GrantPrideco.com

MEXICO
Grant Prideco de Mexico, SA de CV
Maritano Escobedo 724-207
Col. Anzures
México 11590, D.F.
Phone: 52-55-5531-0133
Fax: 52-55-5254-7277
E-mail: Emilio.Lanzagorta@GrantPrideco.com

MIDDLE EAST
Grant Prideco
Dubai Airport Free Zone
East Wing 2, 4th Floor, Office 2E-404
Dubai
UAE
Phone: 971-4299-6446
Fax: 971-4299-6424
E-mail: IB.You@GrantPrideco.com

RUSSIA, FSU
Grant Prideco
119017, Moscow, Russia,
Bolshaya Ordynka, 44
Building 4, second floor
Phone: 74-95-960-2404
Fax: 74-95-960-2924
Email: Valentin.Abashin@GrantPrideco.com

Manufacturing Facilities
U.S.A.
Grant Prideco, L.P.
F.M. 1227, Miller Industrial Park #1
P.O. Box 1310
Navasota, Texas 77868
Phone: 936-825-7070
Fax: 936 825-7386

Grant Prideco, L.P.
168 Garber Rd
Amelia, Louisiana 70340
Phone: 985-631-0516
Fax: 985-631-0710
Toll Free: 800-462-6784

The IntelliServ Network
2241 South Larsen Pkwy
Provo, Utah 84606
Phone: 281-297-8500
www.IntelliServ.net
Email: Sales@IntelliServ.net
AUSTRIA
Voest Alpine Tubulars GmbH. & Co KG
Alpinestrasse
17 A-8652
Kindberg-Aumuhl
Austria
Phone: 43-3865-2215-204
Fax: 43-3865-2215-233

CHINA
Grant Prideco (Jiangsu) Drilling Products Company Ltd.
Zhangmu Town, Jiangyan City
Jiangsu Province
P.R. China 225532
Phone: 86-523-868-1111
Fax: 86-523-868-1159
Email: Jiahua.Jiang@GrantPrideco.com; jiangjiahua@pub.tz.jsinfo.net

Grant Prideco Tianjin
Jin Tang Road Dongli
District Tianjin
Tianjin
300301 P.R. China
Phone: 86-22-24802116
Fax: 86-22-24802316

INDONESIA
PT H-Tech Oilfield Equipment
J1 Hang Kesturi KM4
Kabil Industrial Estate
Batam Island
Phone: 65-373-27007

ITALY
C.M.A. CANAVERA S.p.A.
Regione Malone, 117
ROCCA CANAVESE
Torino, Italy 10070
Phone: 39-011-923-86-11
Fax: 39-011-924-01-19

MEXICO
Grant Prideco De Mexico, S.A. de C.V.
Km. 433.5 Carretera
Mexico-Veracruz Cd.
Industrial Bruno
Pagliai
Veracruz
C.P. 91690
Mexico
Phone: 52-229-989-0400
Fax: 52-229-981-0304
While every effort has been made to insure the accuracy of the tables herein, this material is presented as a reference guide only. The technical information contained herein should not be construed as a recommendation. Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended.

Grant Prideco is the world leader in drill stem and drill pipe technology, manufacturing, sales and service; a global leader in drill bit technology and manufacturing, specialized downhole tools and related applications and services; and a leading provider of large-bore, engineered connectors. The Company provides a variety of product and service solutions to onshore and offshore markets worldwide. Find out more about Grant Prideco’s global activities at [www.GrantPrideco.com](http://www.GrantPrideco.com).

<table>
<thead>
<tr>
<th>Grant Prideco Drilling Products &amp; Services Trademarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY™-105</td>
</tr>
<tr>
<td>CYX™-105</td>
</tr>
<tr>
<td>CXD™-95</td>
</tr>
<tr>
<td>CXD™-105</td>
</tr>
<tr>
<td>DC™</td>
</tr>
<tr>
<td>eXtreme®</td>
</tr>
<tr>
<td>eXtreme® Torque-M™</td>
</tr>
<tr>
<td>G-120™</td>
</tr>
<tr>
<td>GPDS™</td>
</tr>
<tr>
<td>Grant Prideco (full logo) ®</td>
</tr>
<tr>
<td>Grant Prideco®</td>
</tr>
<tr>
<td>Grant Prideco Double Shoulder™</td>
</tr>
</tbody>
</table>

**Other Trademarks**
ABAQUS™ is a trademark of ABAQUS, Inc.
API (logo) ® is a trademark of the American Petroleum Institute.
DNV (logo) ® is a trademark of Det Norske Veritas.
DSTJ™ is a trademark of Tenaris.
NanoSteel is a trademark of the NanoSteel Company.
NS-1™ is a trademark of Fernley Proctor.
Teflon® is a trademark of DuPont.
Truscope® is a trademark of Tuboscope.
Weco® is a trademark of FMC Technologies.

*While every effort has been made to insure the accuracy of the tables herein, this material is presented as a reference guide only. The technical information contained herein should not be construed as a recommendation. Grant Prideco cannot assume responsibility for the results obtained through the use of this material. No expressed or implied warranty is intended.*
DRILL PIPE
Grant Prideco provides the industry with the three most important considerations for drill pipe: quality, technology and economy. Manufacturing processes are vertically integrated from raw material to finished product. Pipe is supplied by the Company’s own mill and tool joints are forged in its own facilities.

Drilling Products & Services also offers all the features of a fully integrated service company. Beyond full technical and field support for its products, Grant Prideco provides an array of other services, including training and seminars, tool joint break-in prior to delivery and a worldwide repair and accessory manufacturing network.
Drill Pipe Design and Manufacturing

**Design**

Drill pipe life is extended by creating a design that is inherently fatigue resistant. When drill pipe rotates in a bent condition, alternating tensile and compressive stresses can cause fatigue cracks that may ultimately result in drill pipe “washouts” and failure. Stresses tend to concentrate in areas where geometries change rapidly. The shorter or more irregular the transition, the higher the stress concentration. Alternately, the longer and smoother the transition, the lower the stress.

The weldneck/upset design incorporates a counterbored weldneck, an extended internal upset length, a shallow internal taper angle and generous radii to produce the optimum stress-reducing geometry.

The thick weldneck, required for adequate weld strength and the short internal upset of a standard industry design concentrates stress in the adjacent pipe body.
**Geometry**

The critical section of a joint of drill pipe is the transition from the pipe body to the tool joint. This section consists of the weld that joins the pipe and tool joint, and the transition from the thin cross-section of the pipe to the thick cross-section of the tool joint. The challenge to the drill pipe designer is to ensure that the weld is stronger than the pipe body and the transition between the pipe body and the tool joint is as seamless as possible.

Grant Prideco’s weldneck/upset design was engineered to maximize fatigue resistance in this critical transition. A geometry that minimizes stress concentrations is employed. The assembly is configured to optimize the transition from the cross-section of the pipe to the tool joint. The length of the internal upset is extended, producing a shallow fade-away angle that blends into the pipe body’s inside diameter with a liberal radius. To further improve fatigue resistance, the surface finish of the assembly adjacent to the weld line is improved by grinding on both the inside and outside diameter.

![Hardenability Curve](image)

**Proprietary Steel**

Grant Prideco incorporates specially designed proprietary steel for both the drill pipe tube and the tool joint. Tube and billets are produced by Grant Prideco mills in Austria and China or obtained from qualified suppliers, and thoroughly inspected upon receipt to verify that all material requirements are met. By closely matching the chemistries of the tube and tool joint materials, Grant Prideco ensures good weld compatibility and weld strength. Stringent cleanliness requirements for both materials enhance fracture toughness. The increased hardenability of the materials consistently produces more uniform mechanical properties throughout the entire cross-section, commanding adequate strength in the weld zone and the critical sections of the connection. The result is a more reliable product. For both API drill pipe and high-performance, severe-environment products, Grant Prideco engineers materials that increase product performance and integrity.
DRILL PIPE

- Deburring and Facing
- Upsetting the Pipe
- Induction Heating
- Green Tube
- Austenitizing Furnace
- H₂O External Quench
- Tempering Furnace
- Quality Check
- Turn & Bore Pipe Tube Ready to Weld
- Full Length Pipe Inspection including End Area
- Straightening
- Tool Joint & Tube Joined With Inertia or Friction Welder
- Stress Relieve
- Machining & Cleaning the Weld Zone
- Weld Zone Inspection
  - Hardness
  - Ultrasonic
  - Wet Magnetic
  - Dimensional
  - Visual
  - Drift
- Tempering by Induction Heating
- Quenching Internal/External
- Austenitizing by Induction Heating
- Completed Drill Pipe
**Tube Processing**
Grant Prideco drill pipe is manufactured with state-of-the-art production equipment. Tube ends are forged on modern Ajax upsetters featuring programmable heating systems, which optimize forging efficiency. The computer-controlled pipe handling system operates cleanly and quietly to transfer tubes quickly and without damage. Grant Prideco’s modern austenitizing and tempering furnaces provide a controlled quench-and-temper heat treatment process for tubes. Tensile and impact properties are then verified through rigorous testing.

**Tool Joint Processing**
Grant Prideco’s computer-controlled, automated forge line efficiently produces tool joints while reducing risk to employees. Forged tool joints are precision contoured on modern machining centers, then batch heat-treated by a controlled atmosphere quench-and-temper process. API or Grant Prideco proprietary rotary-shouldered connections are threaded onto the tool joint using Computer Numerically Controlled (CNC) machine tools.
**Welding**

A friction or inertia weld process joins tubes and tool joints. Both processes are highly reliable and cost-effective, and produce consistent and uniform weld zone properties. In terms of weld quality, reliability, strength or metallurgical effects, both processes produce a high-integrity, solid-state weld connection between the tool joint and the drill pipe tube. The principles of both welding processes are based on the rotation of one surface against another at a relatively high speed and under heavy pressure. The friction between the tool joint surface and the tube surface causes the contact to heat up below the melting temperature at which they are forged together, producing the weld.

Grant Prideco’s latest MTI400VX weld line system is fully automated and features a computerized process and data system. Robotic handling and laser control position systems provide efficient operation and assure precise alignment between the tool joint and tube. Subsequently, the weld’s heat-affected zone (HAZ) receives the patented Tuff-Weld® process.

Tuff-Weld is a post-weld quenched and tempered heat treatment of the heat-affected zone. The weld zone is heated by induction to the specified austenitizing temperature, which is followed by quenching from precisely positioned fluid nozzles. To ensure that complete tempering is obtained, an area wider than the HAZ is reheated to the proper tempering temperature by the induction coil. A full 100% of welds that undergo the Tuff-Weld process are subjected to hardness testing. The benefits of the Tuff-Weld process are shown to the right by comparing the two weld zone photomicrographs.

This photomicrograph depicts a typical normalized and tempered weld zone. The weld line is clearly evident by the contrasting microstructures of the tool joint and the tube upset. The microstructure of the higher carbon tool joint contains predominantly ferrite and pearlite, while the upset is often pearlite and has lower transitional constituents.

This photomicrograph depicts the typical microstructure of a Tuff-Weld® weld zone. The similar microstructures of the tool joint and the tube upset make the weld line difficult to detect. Both display tempered martensitic microstructures. The result is yield strengths and Charpy impact values superior to those of normalized microstructures. The Tuff-Weld process consistently produces stronger, tougher and more uniform weld zone properties. This combination of strength and toughness enhances fatigue resistance, making the Tuff-Weld process the most desired post-weld heat treatment in the industry. More than 50% of the drill pipe in the world is produced using the Tuff-Weld process.
Automatic customized inline lathes simultaneously remove the internal and external ram’s horns. Programmable sanding units provide a surface finish that is free of stress risers. State-of-the-art electromagnetic and ultrasonic inspections ensure that weld inclusions and defects are not present.

Completed drill pipe assemblies undergo an intense inspection process including a magnetic particle end area inspection, a full-length Truscope® analysis, high-speed full-body ultrasonic and electromagnetic inspection for longitudinal and transverse defects and minimum wall thickness verification.

Traceability
Drill pipe assemblies are produced by welding pin and box tool joints to an upset and heat-treated drill pipe tube. Material and process traceability are maintained for each of the three components. Mill material certifications for tool joints are confirmed by incoming testing and each tool joint blank is given a unique heat code. This code is traceable through the manufacturing process. A Grant Prideco number is similarly used to provide traceability for the drill pipe tube. The number is die-stamped for permanent identification.
Grant Prideco Proprietary Drill Pipe Grades

In addition to all API grades, Grant Prideco produces drill pipe in several proprietary grades including high-toughness, high-strength and sour-service grades designed for the most challenging applications in the most severe environments.

S-135T™ Enhanced Toughness 135 Grade Drill Pipe

S-135T™ drill pipe is a proprietary grade offered by Grant Prideco for applications that require high strength and high toughness. S-135T drill pipe incorporates a proprietary chemistry and a rigidly controlled quenched and tempered heat treatment. The minimum average specified Charpy impact energy is 59 ft-lbs for a 3/4 size specimen at -4°F, a 48% increase in impact energy over the standard API S-135 grade. The performance behavior resulting from this increase in toughness provides a margin of safety superior to normal high-strength materials.

eXtreme® Drilling Z-140™ Grade Drill Pipe

Z-140™ is a proprietary drill pipe grade offered by Grant Prideco, which is designed specifically for extreme drilling conditions present in high temperature high pressure (HTHP) environments, extended reach drilling (ERD), deepwater and ultra-deep wells. Through proprietary steel chemistry and a rigidly controlled quench-and-temper process, Z-140 drill pipe provides an exceptional balance between elevated strength and low-temperature high-toughness requirements. Compared to standard API S-135 grade drill pipe, Grant Prideco’s Z-140 drill pipe grade provides a higher minimum yield strength, a smaller window between allowable minimum and maximum yield strength values and increased toughness requirements to perform under the most demanding cyclic loading operations.

eXtreme® Drilling V-150™ Grade Drill Pipe

V-150 is a proprietary drill pipe grade offered by Grant Prideco for applications that require ultra-high strength material. V-150 incorporates proprietary chemistry and a rigidly controlled quench-and-temper heat treatment. The increased yield strength provides superior torsional and tensile strength and enhanced internal and collapse pressure integrity.

TSS™ Tough Sour Service 95 and 105 Grade Drill Pipe

TSS™-95 and TSS™-105 drill pipe are proprietary grades offered by Grant Prideco for service in H₂S environments. With a unique chemistry and a specialized quenched and tempered heat treatment, TSS-95 and TSS-105 have optimum fracture toughness, controlled yield strength and restricted hardness. The tubes are NACE Method A tested to a threshold stress of 85% and 70% respectively of the Specified Minimum Yield Strength (SMYS). TSS-95 and TSS-105 have API tool joints and are best suited for environments having lower H₂S concentrations. Because its minimum fracture toughness is 100 ft-lbs, TSS-95 drill pipe is ideal for more demanding drilling applications, such as those with high bending loads and corrosive environments.

EXAMPLE: 5 IN 19.50 LB S-135 VS. V-150™

<table>
<thead>
<tr>
<th></th>
<th>S-135</th>
<th>V-150™</th>
<th>% Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torsional Strength (ft-lbs)</td>
<td>74,100</td>
<td>82,300</td>
<td>11</td>
</tr>
<tr>
<td>Tensile Strength (lbs)</td>
<td>712,100</td>
<td>791,200</td>
<td>11</td>
</tr>
</tbody>
</table>

The 5 inch 19.50 lb V-150™ drill pipe provides an 11% increase over S-135 in comparison to all standard API S-135 drill pipe in both tensile and torsional strength.
SS Grade Sour Service Drill Pipe

SS-95 and SS-105 are sour service drill pipe grades of high yield strength, which meet the requirements of Canada’s IRP specification for service in H₂S environments. SS drill pipe features a unique chemical composition and a controlled quench-and-temper heat treatment that produces optimum fracture toughness, controlled yield strength and restricted hardness for both tubes and tool joints. SS tubes are NACE Method A tested to a threshold stress of 85% of the SMYS, and tool joints are NACE Method A tested to a threshold stress of 65% of the SMYS.

eXtreme® Drilling XD® Grade Sour Service Drill Pipe

XD®-95 and XD®-105 are proprietary sour service drill pipe grades of high yield strength offered by Grant Prideco for service in H₂S environments. XD drill pipe features a unique chemical composition and a controlled quench-and-temper heat treatment that produces optimum fracture toughness, controlled yield strength and restricted hardness for both tubes and tool joints. XD tubes are NACE Method A tested to a threshold stress of 70% of the SMYS. XD drill pipe is resistant to sulfide stress cracking and offers optimum resistance to fatigue-induced crack initiation and crack propagation.

eXtreme® Drilling CXD™ Grade Sour Service Drill Pipe

CXD™-95 and CXD™-105 are identical to XD including material and heat-treat process. For situations requiring quicker delivery, NACE testing is omitted.

The following naming methodology is used for proper identification of CYX.

CYX™ 000X-111Y where:
- 000: pipe body material SMYS (95 / 105)
- X: NACE testing of the pipe body (N / _)
- 111: tool joint material SMYS (105 / 110 / 115 / 120)
- Y: NACE testing of the tool joints (N / _)

Examples of popular CYX combinations are included in the accompanying grade table.
## DRILL PIPE

### DRILL PIPE GRADE TABLE†

<table>
<thead>
<tr>
<th>Grade</th>
<th>Use</th>
<th>Yield Strength</th>
<th>Tensile Strength</th>
<th>Elongation</th>
<th>Hardness</th>
<th>Charpy</th>
<th>NACE</th>
<th>Tool Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Min (psi)</td>
<td>Max (psi)</td>
<td>Min (psi)</td>
<td>Max (psi)</td>
<td>(%)</td>
<td>Temp (ºF)</td>
<td>Size</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tube</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-75</td>
<td>General purpose</td>
<td>75,000</td>
<td>105,000</td>
<td>100,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>X-95</td>
<td>General purpose</td>
<td>95,000</td>
<td>125,000</td>
<td>105,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>G-105</td>
<td>General purpose</td>
<td>105,000</td>
<td>135,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>S-135</td>
<td>General purpose</td>
<td>135,000</td>
<td>165,000</td>
<td>145,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>TSS™-95</td>
<td>Sour service</td>
<td>95,000</td>
<td>110,000</td>
<td>105,000</td>
<td>na</td>
<td>API</td>
<td>26 max</td>
<td>room</td>
</tr>
<tr>
<td>TSS™-105</td>
<td>Sour service</td>
<td>105,000</td>
<td>120,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>XD*-95</td>
<td>Sour service</td>
<td>95,000</td>
<td>110,000</td>
<td>105,000</td>
<td>na</td>
<td>API</td>
<td>26 max</td>
<td>room</td>
</tr>
<tr>
<td>XD*-105</td>
<td>Sour service</td>
<td>105,000</td>
<td>120,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>CXD™-95</td>
<td>Sour service</td>
<td>95,000</td>
<td>110,000</td>
<td>105,000</td>
<td>na</td>
<td>API</td>
<td>26 max</td>
<td>room</td>
</tr>
<tr>
<td>CXD™-105</td>
<td>Sour service</td>
<td>105,000</td>
<td>120,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>CYX™-95</td>
<td>Sour service</td>
<td>95,000</td>
<td>110,000</td>
<td>105,000</td>
<td>na</td>
<td>API</td>
<td>26 max</td>
<td>room</td>
</tr>
<tr>
<td>CYX™-105</td>
<td>Sour service</td>
<td>105,000</td>
<td>120,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>SS-95</td>
<td>IRP</td>
<td>95,000</td>
<td>110,000</td>
<td>105,000</td>
<td>130,000</td>
<td>17 min</td>
<td>25 max</td>
<td>room</td>
</tr>
<tr>
<td>SS-105</td>
<td>IRP</td>
<td>105,000</td>
<td>120,000</td>
<td>115,000</td>
<td>140,000</td>
<td>17 min</td>
<td>28 max</td>
<td>room</td>
</tr>
<tr>
<td>S-135T**</td>
<td>High toughness</td>
<td>135,000</td>
<td>165,000</td>
<td>145,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>S-135T</td>
<td>NS-1</td>
<td>135,000</td>
<td>165,000</td>
<td>145,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>Z-140**</td>
<td>High strength</td>
<td>140,000</td>
<td>160,000</td>
<td>150,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>full</td>
</tr>
<tr>
<td>X-150**</td>
<td>High strength</td>
<td>150,000</td>
<td>165,000</td>
<td>160,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>full</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool Joint</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>API</td>
<td>API</td>
<td>120,000</td>
<td>na</td>
<td>140,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>XD**</td>
<td>Sour service</td>
<td>105,000</td>
<td>115,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>CYX™-XX-105</td>
<td>Sour service</td>
<td>105,000</td>
<td>115,000</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>CYX™-XX-110</td>
<td>Sour service</td>
<td>110,000</td>
<td>125,000</td>
<td>125,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>CYX™-XX-115</td>
<td>Sour service</td>
<td>115,000</td>
<td>na</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>CYX™-XX-120</td>
<td>Sour service</td>
<td>120,000</td>
<td>na</td>
<td>115,000</td>
<td>na</td>
<td>API</td>
<td>na</td>
<td>room</td>
</tr>
<tr>
<td>SS</td>
<td>IRP</td>
<td>110,000</td>
<td>125,000</td>
<td>125,000</td>
<td>145,000</td>
<td>15 min</td>
<td>30 max</td>
<td>room</td>
</tr>
<tr>
<td>Weld</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuff-Weld®</td>
<td>General purpose</td>
<td>110,000</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>20-36</td>
<td>room</td>
</tr>
<tr>
<td>Tuff-Weld®</td>
<td>Sour service</td>
<td>110,000</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>20-36</td>
<td>room</td>
</tr>
<tr>
<td>Tuff-Weld®</td>
<td>NS-1</td>
<td>110,000</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>na</td>
<td>20-36</td>
<td>-4</td>
</tr>
</tbody>
</table>

**NOTES:**

† Please refer to page x of the Introduction.
5-7/8 inch eXtreme® Reach (XR™) Drill Pipe

XR™ drill pipe was developed with a 5-7/8 inch diameter for extended reach drilling (ERD) and ultra-deep wells. This intermediate size is ideal for hydraulic performance, high strength and ease of handling, and represents a logical intermediary drill pipe size between standard 5-1/2 inch and 6-5/8 inch drill pipe. Grant Prideco offers 5-7/8 inch XR drill pipe in all standard API material grades and proprietary grades including high toughness, high strength and sour service grades. Tool joints can be configured to accompany any rotary-shouldered connection.

Operational Advantages of 5-7/8 inch XR™ Drill Pipe

- **Hydraulic Performance**: 5-7/8 inch drill pipe provides enhanced hydraulic performance compared to 5-1/2 inch drill pipe for ERD and ultra-deep well applications.
- **Streamlined Configuration**: 5-7/8 inch drill pipe utilizes a 7 inch OD TurboTorque™ or XT™ tool joint, allowing it to be used to drill inside 9-5/8 inch casing and 8-1/2 inch open-hole sections. Overshot fishing capability in an 8-1/2 inch hole is maintained.
- **Logistics**: XR eliminates the need for 6-5/8 inch drill pipe, which is difficult to handle and can sacrifice rig space and setback capacity because it cannot be used to drill 8-1/2 inch hole sections.
- **Rig Modifications**: 5-7/8 inch drill pipe minimizes rig modifications in comparison to 6-5/8 inch drill pipe.

![Pressure Loss Comparison Graph](image-url)

Pressure loss shown includes both pipe and annulus flow.
8. VAM Drilling Information
From simple to complex drill strings, VAM Drilling manufactures it all.

Drill Pipe
Heavy Weight Drill Pipe
Drill Collars
Performance Drilling Systems
Services and Accessories

Vallourec Group
Why VAM Drilling is *Designed to Perform*™

Our slogan “Designed to Perform” is the result of a long adventure which began over three years ago when V&M TUBES Drilling Products, OMSCO Inc. and SMF-International came together to become VAM Drilling, now one of the most recognized producers of innovative drill stem products in the world. Since then, VAM Drilling has grown tremendously with the acquisition of DPAL and Protools in the Middle East and with the investment in a new welding line in the Vallourec & Mannesmann do Brasil Mill. VAM Drilling today is a truly international drilling solutions provider supplying products and services close to where our clients are active. Through its vertical integration with the Vallourec Group, VAM Drilling is able to guarantee the superior quality of its raw materials and to develop new steel grade technologies to ensure superior performance.

Our company has brought together experts with a variety of backgrounds in a number of locations, all working towards the same common goal: bringing our clients the best possible products and services for their most challenging drilling needs.

Reaching our goal is made possible by the core values which are shared by every VAM Drilling employee: commitment towards our customers and their needs combined with the know-how to provide customized solutions based on recognized processes and proven products.

Designed to Perform is VAM Drilling’s way of highlighting not only our innovative products, but also the values that our employees implement in their everyday tasks. Our products are designed for and our people are dedicated to bringing you optimum performance. At VAM Drilling, our success is measured by our clients’ satisfaction.

I hope you will enjoy our VAM Drilling Catalog, which summarizes our innovative service and product offer. We have done our best to provide you with the most detailed information possible, but since our offer is vast, if you have any additional questions please contact one of our nearest sales representatives. You will find a list of contacts on the inside back cover of this catalog.

Happy reading!

Dirk Bissel
VAM Drilling Managing Director
Table of Contents

VAM Drilling
- VAM Drilling – Designed to Perform ........................................... 1
- Vertical Integration ........................................................................ 2
- Products – From the Rig Floor to the BHA ........................................ 3
- Engineering and R&D .................................................................... 4
- Services Before Drilling – Pre-Project Planning ............................... 5
- Services During Drilling – Field Service ........................................... 6
- Services After Drilling – Machine Shops .......................................... 7
- Quality ......................................................................................... 8
- Corporate Responsibility ............................................................... 9
- Environment ................................................................................ 10

Connections
- API Connections ........................................................................... 11
- VAM Express™ ............................................................................ 12
- VAM EIS® .................................................................................... 14
- VAM CDS™ ................................................................................ 16

Grades
- High-Strength Material ................................................................. 17
- Sour Service .................................................................................. 18
- Low-Temperature Grades .............................................................. 22

Drill Pipe
- Drill Pipe – Designed to Go Deep .................................................. 23
- Drill Pipe Manufacturing Flow Chart .............................................. 24
- Drill Pipe and Tool Joint Data ......................................................... 26
- Drill Pipe and Tool Joint Data – Sour Service ................................. 42
- Drill Pipe and Tool Joint Data – High Performance ......................... 48
- Drill Pipe Performance Datasheet ................................................. 50
- Drill Pipe Inquiry Form ................................................................. 52

Heavy Weight Drill Pipe (HWDP)
- Heavy Weight Drill Pipe (HWDP) – Gradual Transition and Weight in Complex Wells ......................................................... 53
- Heavy Weight Spiral Drill Pipe (HWSP) .......................................... 55
- Materials ...................................................................................... 56
- Heavy Weight Drill Pipe (HWDP) Manufacturing Flow Chart ........... 58
- Heavy Weight Drill Pipe Data ......................................................... 60
- Heavy Weight Drill Pipe Data – Sour Service ................................... 66
- HWDP Performance Datasheet ....................................................... 70
- Heavy Weight Drill Pipe (HWDP) Inquiry Form ............................... 72

The data provided in this catalog is for general information only. While every effort has been made to ensure the accuracy of all data and information contained herein, VAM Drilling assumes no responsibility or liability for loss, damage or injury resulting from the use of this material. All uses of the information presented in this catalog are at the user’s own risk and responsibility. © 2011 VAM Drilling. Unless otherwise specified, the Vallourec Group and its subsidiaries are sole owners of all content including, and without limitation, all patents, trademarks, copyrights and other intellectual property rights thereto.
# Table of Contents

## Drill Collars
- Drill Collars .......................................................... 73
- Spiral Drill Collars ............................................... 74
- Slip and Elevator Recesses ..................................... 75
- Drill Collar Manufacturing Flow Chart ..................... 76
- Materials ............................................................... 78
- Hardbanding ........................................................... 79
- Drill Collar Data ....................................................... 80
- Drill Collar Performance Datasheet ............................ 84
- Drill Collar Inquiry Form .......................................... 86

## Performance Drilling Systems
- Hydroclean™ – Reducing Non-Productive Time ............ 87
- Hydroclean Data ....................................................... 89
- VAM DPR SR – For Deepwater Completion and Workover Operations ........................................... 90
- VAM DPR HP – For High-Pressure Ultra-Deep Water Completion and Workover Operations .............. 91
- Landing Strings – For Casing Running and Subsea Equipment Installations ..................................... 92
- Non-Magnetic Materials – For Directional Drilling .......... 93

## Accessories
- Kellys – A VAM Drilling Standard ................................. 95
- Square and Hexagonal Kellys Data ............................... 96
- Safety Valves ............................................................ 97
- Upper and Lower Kelly Valves .................................... 98
- Upper and Lower Kelly Valves Data ............................ 99
- Check Valves .......................................................... 100
- Check Valves Data .................................................... 101
- Pup Joints ............................................................... 102
- Drill Stem Subs, Rotary Subs, Lift Subs and Lift Plugs .... 103
- Drilling Stabilizers ..................................................... 104

## Options
- Client Specifications and Inspections ......................... 105
- Hardbanding ............................................................ 106
- Make and Break – Saves You Money .......................... 107
- Coating ................................................................. 108
- Thread Compounds ................................................... 109
- Thread Protectors .................................................... 110

## Contacts
- ............................................................... inside back cover

The data provided in this catalog is for general information only. While every effort has been made to ensure the accuracy of all data and information contained herein, VAM Drilling assumes no responsibility or liability for loss, damage or injury resulting from the use of this material. All uses of the information presented in this catalog are at the user's own risk and responsibility. © 2011 VAM Drilling. Unless otherwise specified, the Vallourec Group and its subsidiaries are sole owners of all content including, and without limitation, all patents, trademarks, copyrights and other intellectual property rights thereto.
VAM Drilling
Designed to Perform

At VAM Drilling we are committed to our clients’ success.

VAM Drilling is one of the world’s largest fully integrated manufacturers of drill pipe and associated drillstem products. All of our products are designed to meet the most demanding specifications for today’s drilling market. VAM Drilling is a subsidiary of the Vallourec Group, a world leader in the design and production of seamless steel tubes for diversified industrial applications (oil and gas, power generation, petrochemicals, automotive and mechanical engineering industries).

The VAM Drilling product lines combine a full range of drilling tubulars and accessories. From the rig floor to the bottomhole assembly (BHA), VAM Drilling products are available in a variety of steel grades with standard API or proprietary high-performance connections.

With performance manufacturing facilities in Brazil, France, the Netherlands, the United Arab Emirates and the United States, VAM Drilling supplies drilling products and services worldwide and has earned an international reputation for quality. Our representatives combine professionalism and responsiveness to ensure that our clients are completely satisfied.
VAM Drilling is truly vertically integrated, providing drill stem products from the mill to the well. VAM Drilling, through parent company Vallourec, has its own mills, ensuring continuous supply of raw materials.

VAM Drilling receives green tubes from V&M Tubes’ mills in Saint-Saulve (France); Mülheim (Germany); Youngstown, Ohio (USA); and Belo Horizonte (Brazil). Tubes are upset and heat-treated to the required specifications at VAM Drilling’s manufacturing plants in Europe and the United States. Other welding lines are situated in South America and the United Arab Emirates. Tool joint forgings are supplied by VAM Drilling France and American producers, and are machined and phosphated prior to friction welding in VAM Drilling plants.

After the tubes have been upset, heat-treated and welded to the tool joint, they are inspected and can be coated internally and externally before shipment. Manufacturing includes both API and high-performance products, such as VAM Drilling’s proprietary connections VAM EIS® and VAM Express™; H₂S resistant materials; or high-strength steel grades.

VAM Drilling’s plant in Cosne-sur-Loire (France) manufactures its patented Hydroclean™ product line. Bottom-hole assembly and accessory products such as kellys, heavy weight drill pipe, rotary subs, non-magnetic drill collars, spiral-grooved drill collars, slick drill collars, safety valves, etc. are also produced in France, the United States and the United Arab Emirates.
Drill Pipe and Drill Collars from China

Investigation Nos. 701-TA-474 and 731-TA-1176 (Final) (Remand)
Commissioners and Staff are identified according to their positions in December 2013 when the Commission issued its remand determination (subsequently upheld by the United States Court of International Trade in slip opinion 14-130).

Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436
Drill Pipe and Drill Collars from China

Investigation Nos. 701-TA-474 and 731-TA-1176 (Final) (Remand)
VIEWS OF THE COMMISSION ON REMAND

By decision and order dated August 19, 2013, the U.S. Court of International Trade (per Judge Stanceu) remanded the Commission’s determination in Drill Pipe and Drill Collars from China, Inv. Nos. 701-TA-474 and 731-TA-1176 (Final), USITC Pub. 4213 (Feb. 2011). Downhole Pipe & Equipment, LP v. United States, Slip Op. 13-108 (Aug. 19, 2013) (hereafter “Slip Op.”). Upon consideration of the Court’s remand instructions and the parties’ comments, and based on the record in these remand proceedings, we determine that an industry in the United States is neither materially injured nor threatened with material injury by reason of subject imports of drill pipe and drill collars from China that are sold in the United States at less than fair value and subsidized by the government of China.1 2 3

I. BACKGROUND

A. The Commission’s Original Determinations

The petitions in these investigations were filed on December 31, 2009.4 In the Commission’s original determinations, three Commissioners reached affirmative threat determinations (Vice Chairman Williamson and Commissioners Pinkert and Lane) while three Commissioners reached negative determinations (Chairman Okun and Commissioners Pearson and Aranoff).5

In reaching affirmative threat determinations, Vice Chairman Williamson and Commissioners Pinkert and Lane found that the volume of subject imports was likely to be significant in the imminent future.6 They found that, in the imminent future, price competition demonstrated by subject imports from

---

1 Commissioners Williamson and Pinkert dissent, finding that an industry in the United States is threatened with material injury by reason of the subject imports. See Dissenting Remand Views of Commissioners Williamson and Pinkert.

2 Commissioners Johanson and Broadbent were not members of the Commission at the time of the original determinations. They made their determinations in these remand proceedings de novo by weighing all of the evidence in the record and reaching their own independent conclusions.

3 Commissioner Kieff did not participate in these remand proceedings.

4 CR/PR at I-1.

5 Drill Pipe and Drill Collars from China, Inv. Nos. 701-TA-474 and 731-TA-1176 (Final), USITC Pub. 4213 (Feb. 2011).

6 USITC Pub. 4213 at 27-32.
China at the end of the period of investigation (“POI”) would likely continue, and that increased quantities of aggressively priced subject imports would likely put pressure on domestic producers to lower prices in a market recovering from depressed demand, thereby having likely significant adverse price effects.\(^7\) In light of the domestic industry’s vulnerable condition, and the likely significant volume and likely significant adverse price effects by subject imports, they also found that subject imports would likely have a significant adverse impact on the domestic industry in the imminent future.\(^8\) Finally, they found that changes in demand and nonsubject imports were not credible alternative causes of future injury.\(^9\)

As discussed above, three Commissioners (Chairman Okun and Commissioners Pearson and Aranoff) reached negative determinations. The three dissenting Commissioners found that subject import volume was not likely to increase significantly in the imminent future.\(^10\) They also found that subject imports did not have significant price-depressing or price-suppressing effects during the POI, nor were they likely to have significant adverse price effects in the imminent future.\(^11\) Finally, they found that subject imports did not have a significant adverse impact on the domestic industry during the POI since the industry’s declining financial performance coincided with the global economic downturn and appeared to be demand driven.\(^12\) Having found that the domestic industry was not vulnerable and that there was neither a likelihood of a significant increased volume of subject imports in the imminent future nor that subject imports would enter the U.S. market at prices that were likely to have significant price-depressing or price-suppressing effects, they found that there was no imminent threat of a significant

\(^{7}\) *Id.* at 33-34.  
\(^{8}\) *Id.* at 35-36.  
\(^{9}\) *Id.* at 36-37.  
\(^{10}\) *Id.* at 43-46.  
\(^{11}\) *Id.* at 46-54.  
\(^{12}\) *Id.* at 54-59.
adverse impact on the domestic industry producing drill pipe and drill collars by reason of subject imports from China.\textsuperscript{13}

\textbf{B. The Court of International Trade’s Remand Order}

Downhole Pipe & Equipment, LP ("Downhole"), an importer of subject merchandise from China, appealed the Commission’s affirmative threat determinations to the U.S. Court of International Trade, which affirmed those determinations in part and remanded them in part. At the outset, the Court rejected Downhole’s challenge to the Commission’s domestic like product analysis on the grounds of judicial estoppel and failure to exhaust administrative remedies. Slip Op. at 6-8.

The Court next concluded that the Commission’s affirmative threat determinations contained two erroneous findings in the volume analysis. \textit{Id.} at 11-19. In the Court’s view, “. . . the impermissible findings were that only smaller domestic purchasers, as opposed to purchasers the ITC considered ‘large,’ were buying subject merchandise at the start of the POI and that, during the POI, the participation of Chinese suppliers in the U.S. market broke through a prior limitation to smaller suppliers.” \textit{Id.} at 16. The Court concluded that “‘from these erroneous findings, the ITC reached the unsupported conclusion that ‘the participation of suppliers of Chinese product in the U.S. market has evolved and grown over the period in ways that indicate further expansion is imminent,’ and the related conclusion that ‘the fact that suppliers of Chinese product have broken through a major prior limitation on their reach in the U.S. market is an indication that their U.S. market share is poised to increase.’” \textit{Id.} at 16 (internal citations omitted). On remand, the Court instructed the Commission to reconsider its affirmative threat determinations “on the whole, in the absence of these findings and conclusions.” \textit{Id.} at 19.

The Court also remanded two other aspects of the Commission’s affirmative threat determinations for further explanation. First, the Court directed the Commission “to explain why, and to what extent, it based its overall determinations related to likely future import volume on its stated findings that the U.S. market share of subject merchandise was ‘substantial’ throughout the POI and ‘grew’ in

\textsuperscript{13} \textit{Id.} at 59-62.
first-half 2010.” Id. at 20. Second, the Court instructed the Commission to provide further explanation in support of its finding that “U.S. importers have increased their quantities of inventories of Chinese product to levels that are particularly significant in the context of current market conditions.” Id. at 21.

C. Current Remand Proceedings

Following the Court’s remand order, the Commission instituted the remand proceedings in these investigations.14 The Commission afforded the parties the opportunity to submit comments on the remand proceedings.15 Remand comments were submitted on behalf of the domestic industry by VAM Drilling USA Inc. (“VAM”), Houston, Texas; Rotary Drilling Tools (“RDT”), Beasley, Texas; Texas Steel Conversions, Inc. (“TSC”), Houston, Texas; and TMK IPSCO (“TMK”), Downers Grove, Illinois (collectively “Petitioners”). United States Steel Corporation (“U.S. Steel”) also submitted comments on behalf of the domestic industry. Downhole, the plaintiff in the Court of International Trade proceedings, submitted comments on behalf of the Chinese respondents.16

II. DOMESTIC LIKE PRODUCT & DOMESTIC INDUSTRY

We reaffirm the Commission’s prior finding concerning the definition of a single domestic like product, which was affirmed by the Court, and adopt it in its entirety here.17 We also adopt the Commission’s prior finding concerning the definition of the domestic industry (including the Commission’s original related party analysis) and incorporate it by reference herein.18

---

15 Id. at 59973.
16 In its opinion, the Court identified two instances where the Staff Report misclassified certain data from two purchasers ***. First, as the Court found, the Staff Report reported that ***.
17 USITC Pub. 4213 at 4-14; Slip Op. at 8.
18 USITC Pub. 4213 at 14-17.
III. CONDITIONS OF COMPETITION

We reaffirm the Commission’s prior findings concerning conditions of competition in the United States market for drill pipe and drill collars during the POI and adopt them in their entirety herein.¹⁹

IV. NO MATERIAL INJURY OR THREAT OF MATERIAL INJURY BY REASON OF SUBJECT IMPORTS FROM CHINA

We have reviewed the record of these remand proceedings, the Court’s remand instructions, and the comments of the parties relating to the Court’s instructions. Having taken these steps, we determine that the domestic industry is neither materially injury nor threatened with material injury by reason of subject imports from China. In reaching our negative determinations on remand, we adopt the Original Dissenting Views of the Commission in their entirety and incorporate them fully herein.²⁰

The Court’s remand instructions are directed only to certain aspects of the affirmative threat determinations previously reached by the Commission. Since we have adopted the Original Dissenting Views in their entirety, the Court’s remand instructions do not apply to our negative determinations on remand. We nevertheless address below certain remand comments submitted by the domestic industry pertaining to the Original Dissenting Views that we have now adopted on remand.²¹

In their remand comments, Petitioners question the analysis in the original dissenting views of Chairman Okun and Commissioners Pearson and Aranoff concerning U.S. purchasers’ inventories.²² Notwithstanding Petitioners’ suggestion to the contrary, the dissent relied upon inventory levels held by U.S. importers and not just inventory levels of U.S. purchasers, in finding that subject import volumes were not likely to increase significantly in the imminent future. As explained by the three dissenting Commissioners, and as the Court observed, record evidence in these final phase investigations showed no significant increase during the POI in the quantities of finished drill pipe and drill collars held in

¹⁹ USITC Pub. 4213 at 22-27.
²⁰ USITC Pub. 4213 at 41-62.
²¹ We note that, for the most part, the comments submitted by the domestic industry in these remand proceedings pertain to the affirmative threat determination previously entered by the Commission. See, e.g., U.S. Steel Remand Comments at 1-9; Petitioners’ Remand Comments at 2-5 & 8-14.
inventory by U.S. importers.  As the Court also observed, the record also “show{s} a sizeable increase in *** importers’ inventories only from 2007 to 2008 and show{s} modest declines thereafter.” Indeed, U.S. importers’ inventories of subject imports of finished goods were *** short tons in 2007, *** short tons in 2008, *** short tons in 2009, and remained at *** short tons in the first half of 2010.

In their remand comments, Petitioners also question the analysis in the original dissenting views of Chairman Okun and Commissioners Pearson and Aranoff concerning U.S. purchasers’ inventories. As they explained, however, the record evidence did not support Petitioners’ claims about U.S. purchasers’ inventories. Moreover, as the Court observed, the record shows that “. . . while {U.S. purchasers’} inventories of finished products from U.S. sources predictably increased from 2007 to 2009 as demand declined, {U.S. purchasers’} inventories of subject imports of finished products dropped substantially over the same period.” Slip Op. at 21 (quoting Original Dissenting Views at 8).

In its remand comments, U.S. Steel argues that, as a ratio to U.S. apparent consumption, U.S. importers’ inventories of subject imports increased during the POI, which is an indicator that subject imports therefore threaten injury to the domestic industry. See e.g., U.S. Steel Remand Comments at 8. Even though there was a significant increase in the ratio of U.S. importers’ inventories of subject imports relative to apparent U.S. consumption throughout the POI, the record did not establish that these relative inventory increases were a factor having a significant injurious impact on the domestic industry during the POI, including in interim 2010. Absent any significant changes in market conditions that would suggest otherwise, we do not see any basis to conclude that continued high ratios of subject inventories relative to apparent consumption would be an indication that subject imports would likely have a significant adverse impact on the domestic industry in the imminent future. Similarly, we do not find that any increases in the ratios of Chinese producers’ inventories of subject merchandise relative to Chinese subject producers’ total shipments and apparent U.S. consumption would be likely to have a significant adverse impact on the domestic industry in the imminent future, especially given that they had also not led to injury during the POI.

In their remand comments, Petitioners also argue that declines in U.S. purchasers’ inventories of subject merchandise from China and increases in U.S. purchasers’ inventories of domestically produced finished drill pipe and collars “suggest . . . that purchasers will imminently slow purchases of U.S.-made drill pipe, and accelerate purchases of Chinese-made drill pipe, as indeed occurred in the first half of 2010.” Petitioners’ Remand Comments at 14. As Chairman Okun and Commissioners Pearson and Aranoff found, however, the record in these investigations reflect that, in terms of their inventory levels, U.S. purchasers shifted away from subject merchandise to domestically-produced drill pipe and collars during the POI. See e.g., USITC Pub. 4213 at 45. Moreover, Petitioners’ speculation that U.S. purchasers must significantly replenish their inventories of finished drill pipe from
In their remand comments, Petitioners again argue that the domestic industry is in a vulnerable condition emphasizing that certain expenses incurred by domestic producer NOV Grant Prideco should be considered when assessing vulnerability.\textsuperscript{29} However, as explained in their original views, the three dissenting Commissioners expressly considered the adjusted data for NOV Grant Prideco and found that the domestic industry nevertheless was currently not vulnerable.\textsuperscript{30}

Petitioners claim on remand that the three dissenting Commissioners “did not grapple with the most salient aspects” of the *** in the first half of 2010.\textsuperscript{31} Petitioners overlook, however, that the three dissenting Commissioners expressly considered and rejected their arguments on this issue as follows:

We also do not consider ***, to indicate that increased volumes of subject imports are imminent. As an initial matter, Petitioners drew the Commission’s attention to this particular sale in order to rebut Respondents’ contention that the domestic industry and importers of subject merchandise sold to distinct groups of customers. Petitioners’ Posthearing brief at 1-2. As Respondents’ contention does not underpin our analysis in any way, we do not consider Petitioners’ rebuttal germane to that analysis. In any event, the record indicates that ***. ***. Respondents’ posthearing brief at exhibit 23 (**), CR at V-31, PR at V-12. Given the specific circumstances surrounding this sale, we do not find that it predicts any imminent surge in subject imports.\textsuperscript{32}

As the Court observed, “***.”\textsuperscript{33} The Court added that the record evidence indicates that the *** occurred largely for non-price related factors “as a result of the seller’s willingness to do an exchange of new and/or used drill pipe.”\textsuperscript{34} We agree with the Court that “{t}he evidence pertaining to the *** transaction or transactions occurring in early 2010 involves only one importer and one large domestic

\begin{flushleft}
\textsuperscript{29} Petitioners’ Remand Comments at 7-8.
\textsuperscript{30} See, e.g., USITC Pub. 4213 at 59-62 & n.122; Confidential Dissenting Views of Chairman Okun and Commissioners Pearson and Aranoff at 32-37 & n.122 (EDIS Doc. #445369).
\textsuperscript{31} Petitioners’ Remand Comments at 6.
\textsuperscript{32} USITC Pub. 4213 at 46 n.30.
\textsuperscript{33} Slip Op. at 16 n.10.
\textsuperscript{34} Id. at 16 n.10.
\end{flushleft}
purchaser; in addition, the record evidence refutes a finding or inference that the transaction or transactions involved were representative or typical.\textsuperscript{35}

Petitioners argue that the finding in the original dissenting views that subject imports would not likely have significant adverse price effects was a “stretch” based upon the record evidence.\textsuperscript{36} We disagree. As the three dissenting Commissioners explained, the record evidence shows that subject imports generally oversold the domestic like product during the POI and there was not significant underselling.\textsuperscript{37} Substantial evidence also supports the three dissenters’ conclusions that subject imports did not have significant price depressing or price suppressing effects during the POI since they mostly oversold the domestic like product, lost market share in the more important finished portion of the market, and provided little or no competition for the growing share of domestic sales of premium drill pipe.\textsuperscript{38} Given the absence of significant adverse price effects during the POI, and in the absence of any changes in the market likely to bring about such effects in the imminent future, we also do not expect subject imports to enter at prices that are likely to have a significant depressing or suppressing effect on domestic prices in the imminent future.\textsuperscript{39}

Petitioners also claim that the record evidence concerning the Chinese industry’s excess capacity and demand trends in the U.S. market warrant an affirmative determination on remand.\textsuperscript{40} These issues, however, were addressed in considerable detail by the three dissenting Commissioners in reaching a negative determination.\textsuperscript{41} We agree with their analysis.\textsuperscript{42}

\textsuperscript{35} \textit{Id.} at 15-16.
\textsuperscript{36} Petitioners’ Remand Comments at 7.
\textsuperscript{37} USITC Pub. 4213 at 51.
\textsuperscript{38} USITC Pub. 4213 at 51-52.
\textsuperscript{39} USITC Pub. 4213 at 53-54.
\textsuperscript{40} Petitioners’ Remand Comments at 6.
\textsuperscript{41} USITC Pub. 4213 at 43-46 & 59-62.
\textsuperscript{42} In their remand comments, the domestic industry emphasizes that the market share of subject imports increased between the second half of 2009 and the first half of 2010. U.S. Steel Remand Comments at 7. As the three dissenting Commissioners found, however, the market share of subject imports declined between the first half of 2009 and the first half of 2010. \textit{See e.g.}, USITC Pub. 4213 at 41-42; Confidential Dissenting Views of Chairman
For the above reasons, based on consideration of the Court’s remand instructions and the parties’ comments, and based on the record in these remand proceedings, we determine that an industry in the United States is neither materially injured nor threatened with material injury by reason of subject imports of drill pipe and drill collars from China that are sold in the United States at less than fair value and subsidized by the government of China.

Okun and Commissioners Pearson and Aranoff at 2 (EDIS Doc. #445369). Indeed, the Commission’s typical methodology – which the three dissenting Commissioners applied here – is to compare partial calendar years, such as interim periods, with the same portion of prior (or subsequent) years. See, e.g., Welded Stainless Steel Pressure Pipe from Malaysia, Thailand, and Vietnam, Inv. Nos. 731-TA-1210-12 (Preliminary), USITC Pub. 4413 at 14-16 (July 2013); Silica Bricks and Shapes from China, Inv. No. 731-TA-1205 (Preliminary), USITC Pub. 4369 at 13-14 (Jan. 2013); Crystalline Silicon Photovoltaic Cells and Modules from China, 701-TA-481 & 731-TA-1190 (Final), USITC Pub. 4360 at 28-30 (Nov. 2012); Certain Steel Wheels from China, Inv. Nos. 701-TA-478 & 731-TA-1182 (Final), USITC Pub. 4319 at 17-20 (May 2012).
DISSENTING VIEWS OF CHAIRMAN WILLIAMSON AND COMMISSIONER PINKERT ON REMAND

By decision and order dated August 19, 2013, the U.S. Court of International Trade (per Judge Stanceu) remanded the Commission’s determination in *Drill Pipe and Drill Collars from China, 701-TA-474 & 731-TA-1176 (Final), USITC Pub. 4213 (Feb. 2011).* *Downhole Pipe & Equipment, L.P. v. United States*, Slip Op. 13-108 (Aug. 19, 2013) (hereafter “Slip Op.”). Upon consideration of the Court’s remand instructions and the parties’ comments, and based on the record in these remand proceedings, we again determine that an industry in the United States is threatened with material injury by reason of subject imports of drill pipe and drill collars from China that are sold in the United States at less than fair value and subsidized by the Government of China.

I. BACKGROUND

We adopt in its entirety the background discussion set forth in the Commission’s Views on remand in these remand proceedings.¹

II. DOMESTIC LIKE PRODUCT & DOMESTIC INDUSTRY

We reaffirm the Commission’s prior findings concerning the definition of a single domestic like product, which were affirmed by the Court, and adopt them in their entirety here.² We also adopt the Commission’s prior findings concerning the definition of the domestic industry (including the Commission’s original related party analysis) and incorporate them by

¹ Remand Views at 3-6.

² *Drill Pipe and Drill Collars from China*, Inv. Nos. 701-TA-474 & 731-TA-1176 (Final), USITC Pub. 4123 at 4-17. The confidential version of these determinations are referred to herein as “*Views.*” The public version of these determinations are referred to herein as “USITC Pub. 4213.”
III. CONDITIONS OF COMPETITION

We reaffirm the Commission’s prior findings concerning conditions of competition in the United States market for drill pipe and drill collars during the period of investigation (“POI”) and adopt them in their entirety herein.4

IV. NO MATERIAL INJURY BY REASON OF SUBJECT IMPORTS FROM CHINA

We have reviewed the record of these remand proceedings, the Court’s remand instructions, and the comments of the parties relating to the Court’s instructions. We again determine that the domestic industry is not materially injured by reason of subject imports from China. In reaching our negative present material injury determination on remand, we adopt the discussion of no present material injury contained in the Original Views of the Commission and incorporate it fully herein.5

V. THREAT OF MATERIAL INJURY BY REASON OF SUBJECT IMPORTS FROM CHINA

We again determine that the domestic industry is threatened with material injury by reason of subject imports from China. In reaching our affirmative threat determination on remand, we adopt the discussion of threat of material injury in the Original Views of the Commission in its entirety and incorporate it fully herein, subject to the modifications and

---

3 USITC Pub. 4213 at 4-17.

4 USITC Pub. 4213 at 22-27.

5 Views at 53-55.
exceptions below in accordance with the Court’s remand instructions.\textsuperscript{6}

\textbf{A. Likely Volume of Subject Imports from China}

We reaffirm our prior findings that subject imports will likely be significant in the imminent future and adopt them in their entirety here except to the extent they are modified below.

We note that many of our prior findings in support of our likely significant volume analysis are not called into question by the Court’s remand instructions. As we previously found, the record showed that subject imports maintained a significant presence in the U.S. market throughout the POI.\textsuperscript{7} Further, as we noted, Chinese capacity was large and increased significantly during the POI. In fact, it was equivalent to *** percent of U.S. apparent consumption in 2009.\textsuperscript{8} Moreover, Chinese subject producers’ capacity utilization declined sharply from *** percent in 2007 to *** percent in 2009, and remained low in the first half of 2010 at *** percent.\textsuperscript{9} In fact, by 2009, the last full year of the POI, Chinese subject producers’ excess capacity was equivalent to *** percent of U.S. apparent consumption.\textsuperscript{10} Accordingly, we continue to find that the large excess capacity of the Chinese industry at the end of the POI is

\textsuperscript{6} Views at 1-53.

\textsuperscript{7} Views at 39 & 54.

\textsuperscript{8} Views at 41-42; CR/PR at Tables VII-3b, VII-3d, & C-2.

\textsuperscript{9} Views at 41-42.

\textsuperscript{10} Derived from CR/PR at Tables VII-3b & C-2. Chinese subject producers’ excess capacity was equivalent to *** percent of apparent U.S. consumption in the first half of 2010. Derived from CR/PR at Tables VII-3d & C-2.
strongly indicative of imminent likely subject import volume.\textsuperscript{11} Additionally, the Chinese industry was export-oriented and Chinese producers had an established track record of exporting large and increasing quantities of the product to export markets during the POI, including significant volumes to the United States.\textsuperscript{12} Finally, in light of the 2010 antidumping and countervailing duty orders on OCTG from China, subject producers had a significant incentive for product shifting and increasing their shipments of Chinese drill pipe to the U.S. market. \textit{Id.} at 44. In our view, the record evidence on these factors warrants our finding that there is likely to be a significant increase in subject imports in the imminent future.

As discussed above, the Court remanded three aspects of our affirmative threat determination which each relate to our likely significant volume analysis. We discuss them in turn below.

1. \textbf{Large Purchasers}

   \textit{a. Court’s Remand}

   Based on its review of the record, the Court found that “substantial evidence does not support two findings made by the Commission and two general conclusions the ITC reached on...
the basis of those two findings.”  As the Court explained, the two “impermissible findings were that only smaller domestic purchasers, as opposed to purchasers the ITC considered ‘large,’ were buying subject merchandise at the start of the POI and that, during the POI, the participation of Chinese suppliers in the U.S. market broke through a prior limitation to smaller suppliers.”

The Court stated that, “{f}rom these erroneous findings, the ITC reached the unsupported conclusion that ‘{t}he participation of Chinese suppliers in the U.S. market has evolved and grown over the period in ways that indicate further expansion is imminent,’ and the related conclusion that ‘{t}he fact that suppliers of Chinese product have broken through a major prior limitation on their reach in the U.S. market is an indication that their U.S. market share is poised to increase.’”

On remand, the Court instructed the Commission to reconsider its determination in the absence of these findings and conclusions.

\[b. \quad \text{Arguments of the Parties} \]

\[i. \quad \text{Domestic Industry Comments} \]

Domestic producer U.S. Steel claims that the Court’s remand on this issue represents a misreading of the Commission’s opinion, and that the Court’s statement that the ITC found that only smaller domestic purchasers were buying subject merchandise at the start of the period of
investigation was incorrect.”\textsuperscript{17} Instead, according to U.S. Steel, “the Commission's analysis on this point represented an effort by the Commission to address a significant inconsistency between statements made by the respondents during the preliminary phase of this investigation, and the factual record as it stood when the investigation was complete.”\textsuperscript{18}

Petitioners\textsuperscript{19} argue that there are not significant quality differences between the domestic like product and subject imports, and that Chinese subject imports are therefore capable of being sold to a broad range of customers in the U.S. market, including large purchasers.\textsuperscript{20} They also note that large purchasers bought significant amounts of subject merchandise throughout the POI.\textsuperscript{21} Given these factors, Petitioners argue that the Commission reasonably found that subject imports were sold to both small and large purchasers during the POI.\textsuperscript{22}

\textit{ii. Respondents’ Comments}

Chinese Respondents argue that “in light of the Court’s finding that the Commission’s likely volume effects finding is not supported by substantial evidence, the record evidence compels the Commission to reach a negative threat redetermination” on remand.\textsuperscript{23} They contend

\begin{itemize}
  \item \textsuperscript{17} U.S. Steel Remand Comments at 2-5.
  \item \textsuperscript{18} U.S. Steel Remand Comments at 2.
  \item \textsuperscript{19} The Petitioners include the following four domestic producers of drill pipe and collars: VAM Drilling USA Inc., Rotary Drilling Tools, Texas Steel Conversions, Inc., and TMK IPSCO.
  \item \textsuperscript{20} Petitioners’ Remand Comments at 10.
  \item \textsuperscript{21} Petitioners’ Remand Comments at 10.
  \item \textsuperscript{22} Petitioners’ Remand Comments at 10.
  \item \textsuperscript{23} Chinese Respondents’ Remand Comments at 10.
\end{itemize}
that “{i}n the absence of the Commission’s erroneous findings regarding large U.S. purchasers turning to subject imports by the end of the POI, the record supports only the conclusion that there is no evidence of imminent ability of subject imports to gain additional U.S. market share.”24 According to Chinese Respondents, “{t}he absence of record evidence to support the conclusion that subject imports could gain market share prevents an affirmative threat determination.”25

c. Analysis

In our prior discussion of large purchasers, we did not intend to suggest that only smaller domestic purchasers were buying subject merchandise at the start of the POI. If our prior discussion gave the Court the impression that we made such a finding, we wish to correct that impression here.

Our analysis on this point was intended to address a significant inconsistency between statements made by the Chinese Respondents during the preliminary phase of these investigations and the factual record as it stood in the final phase of these investigations, after the record was more fully developed. At the Staff Conference during the preliminary phase, counsel for Chinese Respondents testified that “subject imports don’t even compete with the U.S. producers for the same customers.”26 Counsel for Chinese Respondents also stated at the Staff Conference that “U.S. producers completely dominate sales of drill pipe to the large drilling

24 Chinese Respondents’ Remand Comments at 11.

25 Chinese Respondents’ Remand Comments at 11.

26 USITC Pub. 4213 at 28 n.231 (emphasis added).
contractors.”27 Similarly, Charlie Garvey, CEO of importer/respondent Command, testified that his company’s customers “generally are small, independently owned companies in Canada and the United States.”28 Thus, during the preliminary phase, Chinese Respondents appeared to be arguing that they were unable to make any significant sales to large purchasers in the U.S. market.

In contrast to the Chinese Respondents’ claims during the preliminary phase, the record of the final phase established that suppliers of Chinese subject imports were able to make sales to large customers throughout the POI. For example, in 2007, ***, a large purchaser, bought subject merchandise from China valued at $***.29 Similarly, ***, another large purchaser, bought subject merchandise from China valued at $*** in 2007 and $*** in 2008.30 And, ***, one of the largest purchasers in the market, purchased $*** worth of subject drill pipe and collars in interim 2010, the final six months of the POI.31 Thus, despite Chinese Respondents’ claims that subject importers had been unable to sell to large purchasers at some point in the past, they had clearly broken through any such alleged limitation by 2007 and made sales to large purchasers throughout the POI.

Moreover, the 2010 sale by *** provided a significant indication that subject imports

27 USITC Pub. 4213 at 28 n.231 (emphasis added).
28 USITC Pub. 4213 at 28 n.231.
29 Revised CR at II-7 (INV-LL-079) (Oct. 18, 2013); *** Purchaser Questionnaire at II-2.
30 CR at Revised II-7 (INV-LL-079) (Oct. 18, 2013); *** Purchaser Questionnaire at II-2.
31 CR at V-31.
were likely to increase in volume and market share in an injurious manner in the imminent future for a number of reasons. First, it was a very large sale relative to the size of the market at the end of the POI, a period of depressed (albeit increasing) demand. Specifically, the value of the sale, ***, was equivalent to almost *** percent of U.S. producers’ net sales in interim 2010.32 Second, *** confirmed that the sale was awarded to *** because ***.33 *** was ***, which was $*** lower than ***.34 Finally, the sale by *** involved innovative terms of sale that *** were unwilling to match. As we explained in our Views, not only was *** lower than ***, but ***.35 ***.36 In our view, the ***, indicate an aggressive marketing strategy by subject imports focused on increasing volume and market share in an injurious manner in the imminent future. The significance of this strategy is underscored by the incentive provided by the 2010 OCTG orders to increase exports of unfinished drill pipe to the United States.

In sum, as we previously found, the record showed that subject imports maintained a significant presence in the U.S. market throughout the POI, a share that increased in the first half of 2010. It also showed that several of the largest U.S. purchasers bought significant amounts of Chinese subject merchandise during the POI. Moreover, the Chinese industry was very large and growing, was export-oriented, possessed substantial unused capacity, and maintained an

32 CR at Revised Table C-2.
33 Views at 40 n.232.
34 CR at Table V-11; CR at V-31.
35 Views at 40 n. 232.
36 Views at 40 n. 232.
aggressive strategy toward the U.S. market. We thus again conclude that subject imports will increase significantly in absolute terms and relative to domestic consumption and production in the imminent future.

2. Significant Rate of Increase of Subject Imports

a. Court’s Remand Instructions

In its remand instructions, the Court also explained that “[i]t is not clear whether the Commission, in characterizing the market share of subject imports as ‘substantial,’” was referring only to finished imports, which it discussed, or also to unfinished products.\(^{37}\) The Court noted that “the data the ITC cited earlier referred only to finished products,” and that “[a]s to the finished products, the use of the term ‘substantial’ to describe the market share is questionable as applied to the POI as a whole, in which that market share fluctuated considerably, at times to levels that would not appear to qualify as ‘substantial,’ and never exceeded a particular threshold.”\(^{38}\)

The Court observed that the “Commission’s statement that the market share ‘grew’ in first-half 2010 must be interpreted in light of those data, which showed that the market share of finished subject merchandise grew from second-half 2009 to first-half 2010 but in first-half 2010 still was considerably less than it was in first-half 2009.”\(^{39}\) In the Court’s view, “[t]he same data showed that the increase in first-half 2010 must be seen in the context of a precipitous drop in


\(^{38}\) Id.

\(^{39}\) Id.
that market occurring in second-half 2009.”40 Accordingly, on remand, the Court directed the Commission “to explain why, and to what extent, it based its overall determination related to likely future import volume on its stated findings that the U.S. market share of subject merchandise was 'substantial’ throughout the POI and 'grew' in first-half 2010.”41 In doing so, the Court instructed the Commission to be “mindful of the statutory directive that the ITC, when evaluating a threat of material injury, must consider whether there has been ‘a significant rate of increase’ of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports.”42

b. Arguments of the Parties

i. Domestic Industry Comments

The domestic industry observes that the market share of subject imports increased from *** percent in 2007, the first full year of the POI, to *** percent in 2009, the last full year of the POI.43 They also highlight the fact that the market share of subject imports fell from a period-high *** percent in the first half of 2009 to *** percent in the second half of 2009, but then rose

40 Id.


42 Id. at 20 (citing 19 U.S.C. 1677(7)(F)(i)(III) (emphasis in original).

43 U.S. Steel Remand Comments at 7; Petitioners’ Remand Comments at 12-13.
to *** percent in the first half of 2010.44 Given these considerations, they note that subject imports held a substantial portion of the domestic market throughout the POI, and that subject imports gained *** market share from the second half of 2009 to the first half of 2010.45 In their view, the rapid increase in Chinese imports from the second half of 2009 to the first half of 2010 at the end of the POI illustrates that there was a significant rate of increase of the market penetration of Chinese imports, thus indicating the likelihood of substantially increased imports in the imminent future.46 They also argue that, while the Commission expressly considered both finished and unfinished drill pipe and drill collars, the Commission properly focused its analysis on the finished product, which was dominant in terms of market share and value, compared to the unfinished product.47

**ii. Respondents’ Comments**

Chinese Respondents argue that the Court reasonably took issue with the Commission’s conclusion that subject import market share of finished drill pipe and drill collars “grew” in the first half of 2010.48 They emphasize that subject import market share declined from 2008 to 2009, and then declined again between interim periods, falling from *** percent in the first half

---

44 U.S. Steel Remand Comments at 7.

45 U.S. Steel Remand Comments at 7.

46 U.S. Steel Remand Comments at 7.

47 Petitioners’ Remand Comments at 12.

48 Chinese Respondents’ Remand Comments at 13-14.
of 2009 to *** percent in the first half of 2010.49 Explaining that the Commission “typically compares” interim periods covering comparable six-month time intervals (e.g., the first half of 2009 to the first half of 2010), they suggest that the Commission incorrectly compared the subject import market share data for the second half of 2009 to the first half of 2010.50 They contend that “the data regarding increases in market share between the second half of 2009 and the first half of 2010 can, at most, be deemed inconclusive, given that market share *** between the first half of 2009 and the first half of 2010 declined materially, that is, by *** percentage points.”51

c. Analysis

As discussed above, the Court indicated that “{i}t is not clear whether the Commission, in characterizing the market share of subject imports as ‘substantial,’” was referring only to finished imports, which it discussed, or also to unfinished products.52 In our analysis, we focused primarily upon the market share data for finished drill pipe and drill collars. As we explained in our Views, we did so because, in terms of key factors such as number of employees and the value of consumption, the portion of the market for finished drill pipe and collars is much larger than the portion for unfinished drill pipe and collars.53

49 Chinese Respondents’ Remand Comments at 13.

50 Chinese Respondents’ Remand Comments at 14.

51 Chinese Respondents’ Remand Comments at 14.


53 See e.g., Views at 38 n.226. We also note that we focused on the market for finished drill pipe and collars because we could not eliminate the possibility of double-counting as unfinished drill pipe and collars are processed
With respect to the Court’s concerns about the fluctuating levels of subject import volume, we recognize that the U.S. market share of imports of finished drill pipe and drill collars from China fluctuated during the POI. Specifically, the market share of Chinese imports of finished drill pipe and drill collars increased irregularly between 2007 and 2009, growing from *** percent in 2007 to *** percent in 2008, and then dropping to *** percent in 2009, although remaining above 2007 levels.\textsuperscript{54} The U.S. market share of subject imports of finished drill pipe and drill collars fell from a period-high *** percent in the first half of 2009 to *** percent in the second half of 2009, but then rose to *** percent in the first half of 2010, which also was above 2007 levels.\textsuperscript{55}

Notwithstanding the fact that there were fluctuations in these market share levels of subject imports, the U.S. market share of subject imports of finished drill pipe and drill collars was higher in the last full year of the POI than it was during the first full year. The U.S. market share of subject imports of finished drill pipe and drill collars ended *** percentage points higher in 2009 (*** percent), the last full year of the POI, than in 2007, the first full year of the POI (*** percent).\textsuperscript{56} Furthermore, the U.S. market share of subject imports of finished drill pipe and drill collars grew between the second half of 2009 and the first half of 2010.\textsuperscript{57} Specifically, into finished drill pipe and collars. Nevertheless, the Commission did consider the market share data for unfinished drill pipe and drill collars which was *** percent in 2007, *** percent in 2008, *** percent in 2009, and *** percent in interim 2010.\textsuperscript{58} Views at 39 n.230 and 40 n.233 (Commissioner Pinkert footnote).

\textsuperscript{54} CR/PR at Table C-2.

\textsuperscript{55} CR/PR at Table C-2.

\textsuperscript{56} CR/PR at Table C-2.

\textsuperscript{57} Views at 40.
the U.S. market share of subject imports of finished drill pipe and drill collars increased from *** percent in the second half of 2009 to *** percent in the first half of 2010.\textsuperscript{58} In our view, the growth in subject import market share at the end of the POI – an increase of almost *** percentage points between the second half of 2009 and the first half of 2010 – reflects a significant market move by subject imports during a period in which demand was recovering from its lowest level of the POI (in the second half of 2009).

We would add, moreover, that the U.S. market share of imports of finished drill pipe and drill collars was significant throughout the POI. With their market share ranging from *** percent to *** percent, subject imports of finished drill pipe and drill collars were present in the U.S. market at significant levels in every year of the POI.\textsuperscript{59} In other words, regardless of any likely significant rate of increase, the record reflects that it is likely that subject imports will continue to have a significant presence in the U.S. market. We also note that the Chinese industry is large and growing, is export-oriented, possesses substantial unused capacity, and has an incentive to engage in product-shifting.

We examined half-year data for both 2009 and 2010 in order to provide us with a more complete understanding of the changing economic conditions in the market for drill pipe and collars at the end of the period examined.\textsuperscript{60} We disagree with Chinese Respondents that our mode of analysis improperly compared the subject import market share data for the second half

\textsuperscript{58} Views at 40.

\textsuperscript{59} CR/PR at Table C-2.

\textsuperscript{60} Views at 40 n.234.
of 2009 to the first half of 2010. As explained below, we find that it was appropriate to compare the half-year data given the impact of the recession in these final phase investigations.\textsuperscript{61} We note that there is no indication that the market for drill pipe and drill collars is seasonal in a way that could distort comparisons based on half-year increments.\textsuperscript{62}

In 2009, due to the economic recession, there was a particularly sharp decline in demand in the U.S. market. Due to the recession, U.S. demand for finished drill pipe and drill collars did not reach its period-low levels until the second half of 2009.\textsuperscript{63} In fact, U.S. demand for finished drill pipe and drill collars fell by *** percent between the first half of 2009 and the second half of 2009, dropping from *** pounds to ***.\textsuperscript{64} In 2010, however, U.S. demand for finished drill pipe and collars recovered somewhat from its nadir in the second half of 2009.\textsuperscript{65} Given these circumstances, we concluded that it was best to compare the subject import market share trends in the second half of 2009 – when demand was lowest – with the subject import market share trends in the first half of 2010 – when demand was improving – to assess whether subject imports would continue to increase their market share in the imminent future. We found it reasonable to compare the second half of 2009 and first half of 2010 so we could best ascertain

\textsuperscript{61} We note that the Commission has examined half-year data in investigations in which the recession of 2008 to 2009 played an important role. See e.g., \textit{Certain Potassium Phosphate Salts from China}, Inv. Nos., 701-TA-473 & 731-TA-1173 (Final), USITC Pub. 4171 at 24-25 (July 2010); \textit{Certain Coated Paper Suitable for High-Quality Print Graphics Using Sheet-Fed Presses from China and Indonesia}, Inv. Nos. 701-TA-470-471 & 731-TA-1169-70 (Final), USITC Pub. 4192 at 28 (Nov. 2010).

\textsuperscript{62} Views at 40 n.234.

\textsuperscript{63} CR/PR at Table C-2.

\textsuperscript{64} CR/PR at Table C-2.

\textsuperscript{65} CR/PR at Table C-2.
how subject imports would likely respond to market conditions in the imminent future when demand was projected to continue growing, as it had in interim 2010.

3. Inventories

   a. Court’s Remand Instructions

   In its remand instructions, the Court also directed the Commission to provide further explanation for its finding that “U.S. importers have increased their quantities of inventories of Chinese product to levels that are particularly significant in the context of current market conditions.” Slip Op. at 21. The Court observed that “the data the ITC cited for its finding . . . show a sizeable increase in importers’ inventories only from 2007 to 2008 and show modest declines thereafter.” Id. In contrast, the Court noted that “the three dissenting Commissioners concluded that ‘with regard to inventories of the subject merchandise, there was no significant increase in inventories of subject product held by U.S. importers or purchasers over the period examined.’” Slip. Op. at 21 (citing Dissenting Views at 8). The Court also referenced the fact that the three dissenting Commissioners found that “while inventories of finished products from U.S. sources predictably increased from 2007 to 2009 as demand declined, inventories of subject imports of finished products dropped substantially over the same period.” Slip Op. at 21. The Court further directed the Commission to “provide additional explanation of its stated finding in light of all of the relevant evidence, including evidence that may detract from that finding.” Id.
b. Arguments of the Parties

i. Domestic Industry Arguments

The domestic industry argues that U.S. importers’ inventories were particularly significant in light of the contracting demand and the shrinking size of the U.S. market during the POI. They highlight the fact that, as a ratio to U.S. apparent consumption, U.S. importers’ inventories of Chinese imports of finished drill pipe and drill collars increased steadily from 2007 to 2009. They observe that, as the Commission previously found, U.S. importers held subject import inventories of finished drill pipe and drill collars that were equivalent to almost *** percent of annualized 2010 apparent U.S. consumption. They also note that U.S. importers’ inventories of Chinese imports of finished drill pipe and drill collars *** exceeded the volume of subject imports of Chinese imports of finished drill pipe and drill collars in first half 2010 thereby indicating that such inventories were evidence of imminent threat to the U.S. industry.

ii. Respondents’ Arguments

Chinese Respondents argue that the record evidence demonstrates no significant increase in subject imports held either by U.S. importers or U.S. purchasers during the POI. They also

---

66 Petitioners’ Remand Comments at 14.
67 U.S. Steel Remand Comments at 8.
68 U.S. Steel Remand Comments at 8.
69 U.S. Steel Remand Comments at 8-9.
70 Chinese Respondents’ Remand Comments at 14-15.
argue that the lack of correlation between subject import volumes and inventory levels further demonstrates that the Commission’s threat analysis is unsupported by substantial evidence.\textsuperscript{71}

c. Analysis

U.S. importers’ inventories of subject imports of finished drill pipe and drill collars were *** short tons in 2007, *** short tons in 2008, *** short tons in 2009, and *** short tons in the first half of 2010. As we explained previously in our \textit{Views}, U.S. importers’ subject inventories of finished drill pipe and drill collars increased by *** percent from 2007 to 2009 and remained at near period-high levels through the first half of 2010.\textsuperscript{72}

In addition to the absolute volume of U.S. importer inventories, we have also relied heavily on the increase of U.S. importer inventories relative to apparent U.S. consumption and subject import volume as well as the ratio of Chinese producer inventories to their total shipments. These ratios are, in our view, the best indicators of inventory “build-up” during the POI, particularly given the depressed demand in the market.\textsuperscript{73}

The ratio of U.S. importers’ inventories of subject merchandise to apparent U.S. consumption of finished drill pipe and drill collars increased steadily between 2007 and 2009, growing from *** percent in 2007, to *** percent in 2008 and *** percent in 2009.\textsuperscript{74} Moreover,

\textsuperscript{71} Chinese Respondents’ Remand Comments at 15.

\textsuperscript{72} \textit{Views} at 41.

\textsuperscript{73} When inventories increase on a relative basis compared to shipments or consumption, for example, it is often a strong indicator that producers or importers are not able to keep their inventories at a stable level compared to their shipments or sales. In such a situation, producers or importers will feel pressure to reduce their inventories to more typical levels by selling them aggressively in the market.

\textsuperscript{74} Derived from CR/PR at Table C-2.
as we indicated in our Views, as of June 30, 2010, U.S. importers held subject imports of finished drill pipe and drill collars that were equivalent to almost *** percent of annualized 2010 apparent U.S. consumption, their peak level during the POI.  

U.S. importers’ inventories also grew significantly relative to subject imports of finished drill pipe and drill collars. U.S. importers’ inventories of finished drill pipe increased from *** percent in 2007 to *** percent in 2008, grew further in 2009 to *** percent, and remained at near-peak levels in the first half of 2010. By the same calculation, U.S. importers’ inventories of finished drill collars increased from *** percent in 2007 to *** percent in 2008 and *** percent in 2009, and peaked in the first half of 2010. 

The record evidence also indicates that Chinese subject producers stockpiled growing inventories in China during the POI. Relative to their total shipments, Chinese subject producers’ inventories of finished drill pipe increased from *** in 2007 percent to *** percent in 2008 to *** percent in 2009. They were well above 2007 levels in interim 2010, at *** percent. By the same calculation, Chinese producers’ inventories of finished drill collars declined from *** in 2007 percent to *** percent in 2008 to *** percent in 2009 but they were above 2007 levels in interim 2010 at *** percent. Moreover, as we previously explained in

---

75 Views at 41.
76 CR/PR at Table VII-4b.
77 CR/PR at Table VII-4d.
78 CR/PR at Table VII-3b.
79 CR/PR at Table VII-3d.
our *Views*, Chinese producers’ reported end-of-period inventories of (***) short tons) in June 2010 were equivalent to *** percent of annualized 2010 apparent U.S. consumption of finished drill pipe and drill collars.80

The significant buildup of inventories of subject merchandise by U.S. importers and Chinese subject producers indicates that they would be likely to use their inventories to significantly increase their presence in the U.S. market in the imminent future.

**B. Likely Price Effects of the Subject Imports**

We reaffirm our prior findings that subject imports will likely have significant adverse price effects in the imminent future and adopt them in their entirety here.81

**C. Likely Impact of the Subject Imports**

We reaffirm our prior findings that subject imports will likely have a significant adverse impact on the domestic industry in the imminent future and adopt them in their entirety here.82

For the above reasons, based on consideration of the Court’s remand instructions and the parties’ comments, we determine that an industry in the United States is threatened with material injury by reason of subject imports of drill pipe and drill collars from China that are sold in the United States at less than fair value and subsidized by the Government of China.

---

80 *Views* at 44 n.252. CR/PR at Tables VII-3b, VII-3d, and C-2

81 *Views* at 46-49.

82 *Views* at 49-53.
Drill Pipe and Drill Collars from China

Investigation Nos. 701-TA-474 and 731-TA-1176 (Final)
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determinations</td>
<td>1</td>
</tr>
<tr>
<td>Views of the Commission</td>
<td>3</td>
</tr>
<tr>
<td>Dissenting Views of Chairman Deanna Tanner Okun, Commissioner Daniel R. Pearson, and Commissioner Shara L. Aranoff</td>
<td>41</td>
</tr>
</tbody>
</table>

### Part I: Introduction

- Background                                                        | I-1  |
- Statutory criteria and organization of the report                  | I-2  |
  - Statutory criteria                                                | I-2  |
  - Organization of the report                                        | I-3  |
- U.S. market summary                                                | I-3  |
- Summary data and data sources                                      | I-4  |
- Previous and related investigations                                | I-4  |
- Nature and extent of subsidies and sales at LTFV                   | I-6  |
  - Subsidies                                                        | I-6  |
  - Sales at LTFV                                                    | I-6  |
- The subject merchandise                                            | I-7  |
  - Commerce’s scope                                                 | I-7  |
  - Tariff treatment                                                 | I-7  |
- The domestic like product                                           | I-7  |
  - Overview                                                         | I-7  |
  - Description and applications                                     | I-11 |
  - Manufacturing processes                                           | I-12 |
- Domestic like product issues                                       | I-18 |
  - Drill pipe and drill collars                                     | I-19 |
  - Premium drill pipe                                               | I-23 |
- Intermediate products                                              | I-26 |

### Part II: Conditions of competition in the U.S. market

- U.S. market characteristics                                        | II-1 |
  - Overview                                                         | II-1 |
  - Regional availability                                            | II-1 |
  - Lead times                                                       | II-1 |
  - Channels of distribution                                         | II-3 |
- Supply and demand considerations                                   | II-6 |
  - Supply                                                           | II-6 |
  - Demand                                                           | II-11|
- Substitutability issues                                            | II-19|
  - Factors affecting purchasing decisions                           | II-19|
  - Comparison of domestic product and imports                       | II-22|
- Elasticity estimates                                               | II-25|
  - U.S. supply elasticity                                           | II-25|
  - U.S. demand elasticity                                           | II-25|
  - Substitution elasticity                                          | II-26|
## CONTENTS

### Part III: U.S. producers’ production, shipments, and employment

- U.S. producers ............................................................... III-1
- U.S. capacity, production, and capacity utilization ..................... III-4
- U.S. producers’ shipments .................................................... III-7
- U.S. producers’ inventories .................................................. III-11
- U.S. producers’ imports and purchases ................................... III-13
- U.S. employment, wages, and productivity ................................ III-14

### Part IV: U.S. imports, apparent U.S. consumption, and market shares

- U.S. importers ................................................................ IV-1
- U.S. imports ................................................................. IV-5
- Critical circumstances ........................................................ IV-7
- Negligibility ..................................................................... IV-7
- Apparent U.S. consumption ................................................ IV-8
- U.S. market shares ............................................................ IV-9
- Ratio of imports to U.S. production ...................................... IV-10

### Part V: Pricing and related information

- Factors affecting pricing ..................................................... V-1
  - Raw material costs ........................................................ V-1
  - U.S. inland transportation costs ......................................... V-2
- Pricing practices ............................................................... V-2
  - Price methods ................................................................ V-2
  - Sales terms and discounts ............................................... V-3
  - Price leaders ............................................................... V-3
  - Add-ons ...................................................................... V-4
  - Price lags ..................................................................... V-5
- Price data ........................................................................ V-5
  - Price trends ............................................................... V-6
  - Price comparisons ..................................................... V-10
  - Lost revenues and lost sales ............................................ V-11

### Part VI: Financial experience of U.S. producers

- Background .................................................................... VI-1
- Operations on drill pipe and drill collars ................................ VI-2
  - Unfinished and finished drill pipe operations ..................... VI-3
  - Unfinished and finished drill collar operations .................... VI-14
- Capital expenditures, research and development expenses, assets, and return on investment ................................ VI-15
- Capital and investment .................................................... VI-15
## CONTENTS

<table>
<thead>
<tr>
<th>Part VII: Threat considerations and information on nonsubject countries</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The industry in China</td>
<td>VII-1</td>
</tr>
<tr>
<td>Overview</td>
<td>VII-1</td>
</tr>
<tr>
<td>Operations on drill pipe and drill collars</td>
<td>VII-4</td>
</tr>
<tr>
<td>U.S. importers’ inventories of drill pipe and drill collars</td>
<td>VII-9</td>
</tr>
<tr>
<td>U.S. importers’ current orders</td>
<td>VII-10</td>
</tr>
<tr>
<td>Antidumping investigations in third-country markets</td>
<td>VII-10</td>
</tr>
<tr>
<td>Information on nonsubject countries</td>
<td>VII-11</td>
</tr>
<tr>
<td>Supply considerations</td>
<td>VII-11</td>
</tr>
<tr>
<td>Demand considerations</td>
<td>VII-11</td>
</tr>
<tr>
<td>Leading nonsubject countries</td>
<td>VII-12</td>
</tr>
<tr>
<td>Austria</td>
<td>VII-15</td>
</tr>
<tr>
<td>France</td>
<td>VII-16</td>
</tr>
<tr>
<td>Germany</td>
<td>VII-17</td>
</tr>
<tr>
<td>Japan</td>
<td>VII-17</td>
</tr>
<tr>
<td>Mexico</td>
<td>VII-18</td>
</tr>
</tbody>
</table>

### Appendixes

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Federal Register notices</td>
<td>A-1</td>
</tr>
<tr>
<td>B.</td>
<td>Hearing witnesses</td>
<td>B-1</td>
</tr>
<tr>
<td>C.</td>
<td>Summary data</td>
<td>C-1</td>
</tr>
<tr>
<td>D.</td>
<td>Data on premium pipe</td>
<td>D-1</td>
</tr>
<tr>
<td>E.</td>
<td>Supplemental like product information</td>
<td>E-1</td>
</tr>
<tr>
<td>F.</td>
<td>Comparison of finished and unfinished drill pipe</td>
<td>F-1</td>
</tr>
<tr>
<td>G.</td>
<td>Additional pricing data for drill pipe and drill collars</td>
<td>G-1</td>
</tr>
<tr>
<td>H.</td>
<td>Nonsubject country price data</td>
<td>H-1</td>
</tr>
<tr>
<td>I.</td>
<td>Capital and investment</td>
<td>I-1</td>
</tr>
</tbody>
</table>

Note.–Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.
DETERMINATIONS

On the basis of the record developed in the subject investigations, the United States International Trade Commission (Commission) determines, pursuant to sections 705(b) and 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1671d(b)) and (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is threatened with material injury by reason of imports of drill pipe and drill collars from China, provided for in subheadings 7304.22, 7304.23, and 8431.43 of the Harmonized Tariff Schedule of the United States, that the U.S. Department of Commerce has determined are subsidized and sold in the United States at less than fair value (“LTFV”).

BACKGROUND

The Commission instituted these investigations effective December 31, 2009, following receipt of a petition filed with the Commission and Commerce by VAM Drilling USA Inc., Houston, TX; Rotary Drilling Tools, Beasley, TX; Texas Steel Conversions, Inc., Houston, TX; TMK IPSCO, Downers Grove, IL; and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO-CLC, Pittsburgh, PA. The final phase of the investigations was scheduled by the Commission following notification of preliminary determinations by Commerce that imports of drill pipe and drill collars from China were subsidized within the meaning of section 703(b) of the Act (19 U.S.C. § 1671b(b)) and dumped within the meaning of 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the scheduling of the final phase of the Commission’s investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register on September 9, 2010 (75 FR 54912). The hearing was held in Washington, DC, on January 5, 2011, and all persons who requested the opportunity were permitted to appear in person or by counsel.

1 The record is defined in sec. 207.2(f) of the Commission’s Rules of Practice and Procedure (19 CFR § 207.2(f)).
2 Chairman Deanna Tanner Okun, Commissioner Daniel R. Pearson, and Commissioner Shara L. Aranoff dissenting.
3 Vice Chairman Irving A. Williamson, Commissioner Charlotte R. Lane, and Commissioner Dean A. Pinkert determine that they would not have found material injury but for the suspension of liquidation.
Based on the record in the final phase of these investigations, we find that an industry in the United States is threatened with material injury by reason of subject imports of drill pipe and drill collars from China that are sold in the United States at less than fair value and subsidized by the Government of China.1

I. BACKGROUND

The petitions in these investigations were filed effective December 31, 2009, by domestic producers VAM Drilling USA Inc. (“VAM”), Houston, Texas; Rotary Drilling Tools (“RDT”), Beasley, Texas; Texas Steel Conversions, Inc. (“TSC”), Houston, Texas; TMK IPSCO (“TMK”), Downers Grove, Illinois, and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO-CLC (“Union”), Pittsburgh, Pennsylvania (collectively, “Petitioners”).2 Petitioners appeared at the hearing and filed prehearing and posthearing briefs. Representatives of U.S. Steel Corporation (“U.S. Steel”), a domestic producer of unfinished drill pipe, also appeared at the hearing and filed prehearing and posthearing briefs.

Witnesses for two respondent importers appeared at the hearing: Command Energy Services, Ltd. (“Command”) and Downhole Pipe and Equipment, L.P. (“Downhole”). These two respondent importers filed joint prehearing and posthearing briefs. In addition, two witnesses appeared at the hearing from Chinese producer DP-Master Manufacturing Co., Ltd. (“DP-Master”).

The Commission issued questionnaires to 38 firms identified as potential U.S. producers of drill pipe and/or drill collars and received 13 useable responses to its producers’ questionnaire.3 The responding U.S. producers accounted for the vast majority of U.S. drill pipe and drill collar production in 2009.4

The Commission issued questionnaires to 107 firms identified as potential importers of subject drill pipe and drill collars, based on information provided in the petition, information provided by U.S. Customs and Border Protection, and information provided by two commercial import monitoring services.5 Useable questionnaire responses were received from 33 companies.6 Questionnaire responses were received from U.S. importers believed to account for more than 90 percent of U.S. imports of subject merchandise from China during the period for which data were collected.7

The Commission received useable questionnaire responses from ten manufacturers/exporters in China.8 These included 7 of the 12 firms identified by responding Chinese producers as the largest producers of drill pipe in China, and 5 of the 12 firms identified as the largest producers of drill collars in

---

1 Chairman Deanna Tanner Okun and Commissioners Daniel R. Pearson and Shara L. Aranoff find that the domestic industry is neither materially injured nor threatened with material injury by reason of subject imports from China. They join sections I-V of these views.
2 CR/PR at I-1.
3 CR/PR at III-1.
4 CR/PR at III-1.
5 CR/PR at IV-1.
6 Forty-three companies certified that they have not imported drill pipe or drill collars since January 1, 2007. CR/PR at IV-1, n.2.
7 CR/PR at IV-1.
8 CR/PR at Table VII-2.
Responding firms claimed to account for approximately *** percent of total production of unfinished drill pipe in China in 2009, *** percent of finished drill pipe production in China in 2009, *** percent of unfinished drill collar production in China in 2009, and *** percent of finished drill collar production in China in 2009.

II. DOMESTIC LIKE PRODUCT

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the “domestic like product” and the “industry.” Section 771(4)(A) of the Tariff Act of 1930, as amended (“the Tariff Act”), defines the relevant domestic industry as the “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.” In turn, the Tariff Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of “like” or “most similar in characteristics and uses” on a case-by-case basis. No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation. The Commission looks for clear dividing lines among possible like products and disregards minor variations. Although the Commission must accept the determination of the U.S. Department of Commerce

---

9 CR at VII-6 n.27; PR at VII-4 n.27.
10 CR at VII-6; PR at VII-4.
14 See, e.g., Cleo, Inc. v. United States, 501 F.3d 1291, 1299 (Fed. Cir. 2007); NEC Corp. v. Department of Commerce, 36 F. Supp. 2d 380, 383 (Ct. Int’l Trade 1998); Nippon Steel Corp. v. United States, 19 CIT 450, 455 (1995); Torrington Co. v. United States, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), aff’d, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. See Nippon, 19 CIT at 455 n.4; Timken Co. v. United States, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996).
16 Nippon, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (1979) (Congress has indicated that the like product standard should not be interpreted in “such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not ‘like’ each other, nor should the definition of ‘like product’ be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.”).
(“Commerce”) as to the scope of the imported merchandise subsidized or sold at LTFV, the Commission determines what domestic product is like the imported articles Commerce has identified.

B. Scope

Commerce has defined the scope of these investigations as follows:

The products covered by the investigation are steel drill pipe, and steel drill collars, whether or not conforming to American Petroleum Institute (“API”) or non-API specifications. Included are finished drill pipe and drill collars without regard to the specific chemistry of the steel (i.e., carbon, stainless steel, or other alloy steel), and without regard to length or outer diameter. Also included are unfinished drill collars (including all drill collar green tubes) and unfinished drill pipe (including drill pipe green tubes, which are tubes meeting the following description: seamless tubes with an outer diameter of less than or equal to 6 5/8 inches (168.28 millimeters), containing between 0.16 and 0.75 percent molybdenum, and containing between 0.75 and 1.45 percent chromium). The scope does not include tool joints not attached to the drill pipe, nor does it include unfinished tubes for casing or tubing covered by any other antidumping or countervailing duty order.

The products that are the focus of this proceeding consist of drill pipe and drill collars, two of the many tools used on drilling rigs (particularly those intended for oil and gas production). In general, drilling rigs consist of a support structure such as a derrick (for onshore drilling) or a platform (for offshore drilling); power and mechanical systems; rotating equipment; and lining and circulation equipment. A central element of the rotating equipment, in turn, is the drill string, which transmits power from the drilling motor above the surface to the drill bit below, and which conducts drilling mud to the drill bit to flush drill cuttings through the space between the drill string and the casing lining the hole to the surface. The upper portion of the drill string consists in large part of drill pipe. The lower portion of the drill string, or bottom hole assembly, typically includes heavy-weight drill pipe (serving as a transition between the conventional drill pipe and the drill collars); crossovers or subs (typically short accessories used to join different components or to join components with different diameters or thread types); drill collars (required to place additional weight on the drill bit); and the drill bit itself.

---


18 Hosiden Corp. v. Advanced Display Mfrs., 85 F.3d 1561, 1568 (Fed. Cir. 1996) (Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); Cleo, 501 F.3d at 1298 n.1 (“Commerce’s {scope} finding does not control the Commission’s {like product} determination.”); Torrington, 747 F. Supp. at 748-52 (affirming Commission determination of six like products in investigations where Commerce found five classes or kinds).


20 CR at I-11 & I-12; PR at I-8.

21 CR at I-12; PR at I-8.

22 CR at I-12; PR at I-8.

23 Drill pipe and drill collars are classifiable in the Harmonized Tariff Schedule (“HTS”) under subheadings 7304.22, 7304.23, and 8431.43. Drill pipe, other than that fitted with tool joints, is covered by the following HTS
1. Drill Pipe

A single length (or joint) of drill pipe comprises a hollow tube, usually 30-31 feet long, with a wall thickness of less than 0.5 inch and a tool joint connection on each end. Because drill pipe is subject to torsional stresses and fatigue during drilling operations, it must be seamless and heat-treated to meet or exceed API specifications.

The subject product includes finished drill pipe as well as unfinished pipe used in the manufacturing of finished drill pipe. Such unfinished pipe is known as “green tube” and is produced by seamless pipe mills. Producers of finished drill pipe heat treat and forge (upset) the green tube so that they can weld separately manufactured tool joints (steel components with a rotary shoulder connection) to either end. The tool joint itself is a heavy coupling element with robust, tapered threads. It is designed to sustain the weight of the drill stem, withstand the strain of repeated connection and disconnection, and provide a leak-proof seal. The male tool joint section (or pin, with threads cut on the outside) is attached to one end of the length of drill pipe and the female tool joint section (or box, with threads cut on the inside) is attached to the other end. Like drill pipe, tool joints are subject to stress caused by shear and vibration, and consequently fatigue.

Heavy-weight drill pipe ("HWDP") is characterized by thicker walls and longer tool joints than conventional drill pipe. This intermediate-weight pipe has a wall thickness of approximately one inch and has an integral wear pad in the middle. HWDP is designed to provide a gradual transition from the lighter, thinner-walled conventional drill pipes to the heavier drill collars to help reduce drill pipe fatigue or failure and prevent stress concentration at the top of the drill collar. HWDP also allows drilling at higher speeds, reducing torque and differential pressure sticking. HWDP is well-suited for directional drilling because it bends easily, simplifies directional control, and minimizes connection fatigue problems common to high-angle or horizontal drilling.

---

23 (...)continued

statistical reporting numbers: 7304.22.0030, 7304.22.0045, 7304.22.0060, 7304.23.3000, 7304.23.6030, 7304.23.6045, and 7304.23.6060. Drill pipe with tool joints attached that is treated by Customs as machinery parts is covered by HTS statistical reporting number 8431.43.8040, while drill collars are covered by HTS statistical reporting number 8431.43.8060 (a broad category that includes a substantial volume of nonsubject merchandise). The current tariff rates for drill pipe and drill collars are free. CR at I-10; PR at I-7.

24 CR at I-15; PR at I-11.
25 CR at I-15; PR at I-11.
26 CR at I-15; PR at I-11.
27 CR at I-15; PR at I-11.
28 CR at I-15; PR at I-11.
29 CR at I-15; PR at I-11.
30 CR at I-15; PR at I-11.
31 CR at I-15; PR at I-11.
32 CR at I-15; PR at I-11.
33 CR at I-15; PR at I-11.
34 CR at I-15-16; PR at I-11.
35 CR at I-16; PR at I-11.
36 CR at I-16; PR at I-11.
Premium drill pipe is specifically designed for drilling conditions that require properties surpassing those specified by the API standards. As such, premium drill pipe typically contains alloy additions that enhance its toughness, a necessary feature for sour service or for drilling under harsh conditions. Premium drill pipe has the same physical dimensions (including length and diameter) as standard drill pipe but may also have different thread designs from API standards for certain operational conditions. As such, “premium” drill pipe is manufactured to proprietary, sometimes patented, specifications.

2. Drill Collars

Drill collars are heavy, thick-walled, machined products that are designed to guide, stabilize, provide stiffness, and add weight to the drill bit to drill a more vertical hole, but are not necessary for horizontal drilling. Most drill collars are round with lengths of about 30 feet. The inside diameter (I.D.) of a drill collar ranges from two inches to three inches, and the outside diameter (O.D.) ranges from four inches to 11 inches. To reduce differential pressure sticking, the surface of the drill collar can have spiral grooves or the drill collars may be of square cross section.

C. Domestic Like Product Issues

With respect to the domestic like product in the final phase of these investigations, we have considered two issues: (1) whether unfinished drill pipe and unfinished drill collars should be treated as a separate domestic like product from finished drill pipe and finished drill collars, and (2) whether premium drill pipe and standard drill pipe constitute two separate domestic like products.

1. Whether Green Tubes Are a Separate Domestic Like Product from Finished Drill Pipe

In the preliminary phase of these investigations, the Commission addressed the issue of whether green tubes were a separate domestic like product from finished drill pipe. Applying a semi-finished like

---

37 CR at I-16; PR at I-11
38 CR at I-16; PR at I-11
39 CR at I-16; PR at I-11-12.
40 CR at I-16; PR at I-12.
41 This range of drill pipe, however, should not be confused with premium used drill pipe, a term which generally refers to used drill pipe with substantial wear remaining on its body walls. CR at I-16; PR at I-12.
42 CR at I-17; PR at I-12.
43 CR at I-17; PR at I-12.
44 CR at I-17; PR at I-12.
45 In the preliminary phase of these investigations, the Commission declined to treat drill pipe and drill collars as separate domestic like products. See e.g., USITC Pub. No. 4127 at 10. Absent party argument to the contrary in the final phase of these investigations, we do not depart from the Commission’s prior finding on this issue.
46 We note that the scope of Commerce’s investigations and final determinations includes unfinished drill pipe, a stage of production that includes drill pipe green tube. While Commerce’s description of drill pipe green tube is more narrow than the product offerings of certain U.S. mills (see, e.g., CR at I-38 n. 73; PR at I-26 n.73), we have continued to treat drill pipe that has not been heat-treated or upset as “unfinished drill pipe.”
product analysis, the Commission found that, for purposes of the preliminary phase of these investigations, green tubes were not a separate domestic like product from finished drill pipe.47

Although Respondents argued in their prehearing brief that the Commission should find green tubes to be a separate domestic like product,48 Respondents assert unequivocally in their posthearing brief that “the Commission should find one domestic like product consisting of a continuum of drill pipe and drill collar products.”49 Petitioners agree that the Commission should find a single domestic like product consisting of both green tubes and finished drill pipe, as it found in the preliminary phase.50

As discussed above, unfinished drill pipe is a precursor to finished drill pipe. In cases where an issue is presented as to whether articles at different stages of processing should be included in the same like product, the Commission has stated that it will use a semi-finished like product analysis.51 In its preliminary views, the Commission found that, “because green tubes and finished drill pipe are articles at different stages of processing, with green tubes being upstream products that are further processed into downstream finished drill pipe, use of the semi-finished product analysis is more appropriate than application of the Commission’s six-factor analysis.”52

Significance and extent of the processes used to transform the upstream into the downstream articles. In the United States, green tubes are formed from round or square solid steel billets in seamless pipe mills.53 Mills use either rotary piercing or hot extrusion to form a central cavity and then roll the hollow shell with either a fixed plug or a continuous mandrel to reduce the wall thickness and thereby increase the length.54 They then roll the shell to size in a sizing or stretch-reducing mill.55 Processors making drill pipe take the formed product, heat the ends of the green tubes, and send the pipe through a special forging press or upsetter to form a thicker wall at the end of the pipe in order to attach a tool

47 USITC Pub. No. 4127 at 11.
48 In presenting the argument in their prehearing brief that the Commission find green tube to be a separate domestic like product, Respondents pointed out that “[i]nformation regarding downstream products submitted to the Commission since the preliminary phase demonstrates that green tube can be, and has been used to produce both drill pipe and OCTG products.” Respondents’ Prehearing Br. at 43. They also noted that, “[t]he responses of green tube producers indicate that green tube suitable for drill pipe is also suitable for OCTG products,” and that “[a]dditional information on the record regarding the physical and mechanical properties of green tube demonstrates that green tube is a separate like product.” Respondents’ Prehearing Br. at 43.
49 Respondents’ Posthearing Br. at 3.
50 Petitioners’ Prehearing Br. at 16.
51 See, e.g., Carbazole Violet Pigment 23 from China and India, Invs. Nos. 701-TA-437 and 731-TA-1060 and 1061 (Final), USITC Pub. 3744 (Dec. 2004); see also Outboard Engines from Japan, Inv. No. 731-TA-1069 (Final), USITC Pub. 3752 at 7 (Feb. 2005); Mussels from Canada, Inv. No. 731-TA-924 (Prelim.), USITC Pub. 3416 (May 2001) (“In considering whether to expand the domestic like product to include an upstream product such as unprocessed mussels, the Commission generally utilizes the finished/semifinished product analysis.”).
52 USITC Pub. No. 4127 at 17. In a semi-finished products analysis, the Commission examines the following: (1) the significance and extent of the processes used to transform the upstream into the downstream articles; (2) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) whether there are perceived to be separate markets for the upstream and downstream articles; and (5) differences in the costs or value of the vertically differentiated articles. See, e.g., Glycine from India, Japan, and Korea, Inv. Nos. 731-TA-1111-1113 (Prelim.), USITC Pub. No. 3921 at 7 (May 2007); Artists’ Canvas from China, Inv. No. 731-TA-1091 (Final), USITC Pub. No. 3853 at 6 (May 2006); Live Swine from Canada, Inv. No. 731-TA-1076 (Final), USITC Pub. 3766 at 8, n.40 (Apr. 2005); Certain Frozen Fish Fillets from Vietnam, Inv. No. 731-TA-1012 (Prelim.), USITC Pub. No. 3533 at 7 (Aug. 2002).
53 See, e.g., CR at I-17; PR at I-13.
54 See, e.g., CR at I-17; PR at I-13.
55 See, e.g., CR at I-17; PR at I-13.
After being heat treated by one of several possible methods to meet the desired grade, the pipes go through a finishing phase, in which they are heat-treated, inspected, and straightened. Processors next weld separately manufactured tool joints to each end of the pipes by rotational friction or friction welding. Drill pipe (with tool joints attached) subsequently will undergo an additional heat treatment with a polymer quenching agent so that it cools gradually. The pipe then undergoes an additional finishing process where it is machined smooth and inspected. As a share of the finished drill pipe by weight, the unfinished product accounts for approximately two-thirds, with the tool joints accounting for approximately one-third.

Drill collars are produced from solid steel bars that undergo a heat treatment process, and then are drilled, bored, or trepanned. Following the formation of the central cavity, the unfinished drill collar may be referred to as a drill collar “blank.” Subsequently, spiral grooves may be applied and then threads cut directly into each end of the thick-walled drill collar so that it can be connected to other collars.

Whether the upstream article is dedicated to the production of the downstream article. “Green tube” is a term that can apply to unfinished, non-heat-treated tube bodies for casing and tubing or for drill pipe. The scope of these investigations, however, focuses on the latter form of green tube. From the perspective of at least two leading processors, the green tubes they use are dedicated to finished drill pipe. VAM, for example, states that “by controlling quality at all stages of product manufacture, from the seamless green tube to finished drill pipe and drill stem components, VAM ensures a superior product.” Similarly, Grant Prideco (prior to its merger with NOV), indicated that it “controlled each facet of the drill pipe process,” manufacturing (through Voest-Alpine Tubulars) “the green tube (drill pipe tube that has not been heat-treated or processed), the tool joint, and {itself performing} the finishing and welding operations.”

---

56 See, e.g., CR at I-18; PR at I-13.
57 See, e.g., CR at I-18; PR at I-13.
58 See, e.g., CR at I-18; PR at I-13.
59 See, e.g., CR at I-18; PR at I-13.
60 See, e.g., CR at I-18; PR at I-13.
61 See, e.g., CR at I-18; PR at I-13.
62 See, e.g., Conf. Tr. at 101 (Schagrin).
63 See, e.g., CR at I-20; PR at I-14.
64 See, e.g., CR at I-20; PR at I-14. This method does not require tool joints. Id.
65 Not all drill collars pass through a discrete “blank” stage. Larger producers shift overflow drilling or boring to operations such as Timken’s TBS facility, but also maintain their own trepanning capability. See e.g., CR at I-20 & III-7 n.10; PR at I-14 & III-6 n.10. Another consideration is the operational sequence required to produce drill collars. Drill collars are frequently produced from bars that are fully heat-treated before the formation of the central cavity. Thus, a high-value-added operation takes place in its entirety before the product ever becomes “unfinished” drill collar, rather than in multiple stages (as is the case with drill pipe). See e.g., CR/PR at Figure I-5; CR at I-20; PR at I-14. In turn, this is consistent with differences in the average unit values of unfinished and finished drill collars that are far less pronounced than those for finished and unfinished drill pipe (CR/PR at Table VI-2b); why *** would characterize the finishing process as “straightforward” and *** would consider the value added from finishing as *** less than that required for drill pipe (CR/PR at Appendix F); and why Sunbelt Steel Texas would not even be able to segregate its finished and unfinished drill collar operations. See e.g., Hearing Tr. at 191 (Rutledge).
68 CR at I-39; PR at I-26.
69 CR at I-39; PR at I-26-27.
At present, three U.S. mills produce unfinished drill pipe domestically: TMK and U.S. Steel, both of which also produce casing and tubing, and Timken, which does not.70 TMK distinguishes among drill pipe, casing, tubing, and coupling stock, indicating on its website that “semifinished drill pipe is available in carbon and alloy grades ... Our seamless drill pipe can be ordered as green tube or as upset and heat-treated to API 5D grades.”71 According to Timken, ***.72 U.S. Steel’s online product catalogue identifies drill pipe as a distinct entry,73 although U.S. Steel officials have testified in previous proceedings as to interchangeability of green tube (as a general term), prior to heat-treatment and upsetting.74 Responding U.S. producers that addressed the Commission’s question regarding whether the upstream article is dedicated to the production of the downstream article categorically indicated that both green tube and unfinished drill collars are dedicated to the production of finished drill pipe and drill collars and identified no other commercial application during the period for which data were collected.75 U.S. purchasers provided similar observations.76

Differences in physical characteristics and functions of the upstream and downstream articles. To make specific grades of drill pipes, processors need seamless green tubes typically made from low-alloy steel that meet specific requirements (such as chemistries, tensile strength, wall thickness, and length), so the upstream products necessarily impart certain characteristics to the downstream drill pipes. Specifically, unfinished drill pipe in its green stage is produced to the chemistry and dimensional specifications that permit processors to heat treat, upset, and join the tube body with the tool joint that is characteristic of finished drill pipe. By heat-treating and other such operations, processors do not change the appearance of the product but do alter the green tube’s microstructure or mechanical properties to yield finished drill pipes of a specific grade. Prior to these operations, however, unfinished drill pipe cannot be connected to other drill pipes and thus cannot function as a component of a drill string for use in oil and gas drilling. The addition of tool joints alters the appearance of the pipes and provides functionality unavailable from green tubes; finished drill pipes with tool joints can be connected to other drill pipes to form a drill string for use in oil and gas drilling applications.77

In their questionnaire responses, U.S. producers that addressed the Commission’s question regarding whether there are differences in the physical characteristics and functions of the upstream and downstream articles emphasized both similarities and differences.78 Similarities included the steel chemistry and certain physical characteristics such as length.79 Differences for finished drill pipe included heat treating, end finishing, and the presence of the tool joint. Differences for finished drill collars, however, were less pronounced, and generally involved certain exterior machining and the addition of threaded connectors.80 U.S. purchasers focused on the lack of connectors on unfinished drill

---

70 CR at I-39; PR at I-27.
71 CR at I-39-40; PR at I-27.
72 CR at I-40; PR at I-27.
73 CR at I-40; PR at I-27.
74 CR at I-40; PR at I-27.
75 CR at I-40; PR at I-27.
76 CR at I-41; PR at I-27.
77 See, e.g., CR at I-41; PR at I-28; USITC Pub. No. 4127 at 9-10.
78 CR at I-41; PR at I-28.
79 CR at I-41; PR at I-28.
80 CR at I-41; PR at I-28.
pipe and unfinished drill collars, and generally observed that, in the absence of such connectors, downhole use was precluded.81

Whether there are perceived to be separate markets for the upstream and downstream articles. Green tubes are manufactured by seamless tube mills and then manufactured into finished products by processors.82 No U.S. mills that produce green tubes for drill pipe manufacture finished drill pipe.83 No U.S. processors that make finished drill pipe manufacture green tubes for drill pipes, although drill pipe processors occasionally produce and sell drill pipe that has been upset and heat treated, but not tool joined.84 Whereas unfinished drill pipe in its green stage is sold exclusively to the processors that provide heat treatment, upsetting, and tool joining, the finished drill pipe is sold by the processors largely to end users and the remainder sold to distributors.85

Responding U.S. producers that addressed the Commission’s question regarding whether there are perceived to be separate markets for the upstream and downstream articles generally indicated that the markets were the same.86 Responding U.S. producers that focused on the customer base for unfinished and finished drill pipe, however, reiterated that the former is sold to processors and the latter is sold (directly or indirectly) to end users such as drilling contractors.87 Purchasers largely share this view, generally reporting that they purchase only finished drill pipe or drill collars.88 89

Differences in costs or value of the vertically differentiated articles. Unfinished drill pipe in its green stage is produced by seamless pipe mills, primarily from billet, while finished drill pipe is produced almost entirely from unfinished drill pipe.90 Questionnaire respondents reported average unit values for unfinished drill pipe that ranged from a low of $*** per short ton in 2007 to a peak of $*** per short ton in 2008 whereas reported average unit values for finished drill pipes ranged from a low of $5,193 per short ton in 2007 to a peak of $6,253 per short ton in 2009.91 Evidence in the record indicates that the attachment of tool joints accounts for approximately 30 percent of the production cost of finished drill pipe.92 In contrast, *** indicated that unfinished drill collars constitute the large majority of the value of finished drill collars (*** percent, according to ***).93

Conclusion. As in the preliminary phase, the available information on this issue is mixed. Nevertheless, under our semi-finished product criteria, there does not appear to be a clear dividing line between drill pipe and drill collars. Therefore, we are not persuaded to depart from the Commission’s prior finding of a single domestic like product in these final phase investigations. Accordingly, we again

81 CR at I-41; PR at I-28.
82 See e.g., CR at I-17 to I-18; PR at I-12-13.
83 See, e.g., CR/PR at Table III-1.
84 See, e.g., CR at III-5 n.4; PR at III-4 n.4.
85 See, e.g., CR/PR at Table I-4; CR at I-40; PR at I-27.
86 CR at I-41; PR at I-27.
87 CR at I-41; PR at I-27-28.
88 CR at I-41; PR at I-28.
89 Commissioner Pinkert finds that the markets for finished and unfinished drill pipe products are distinct but that there is a single market for finished and unfinished drill collars. With respect to the former, he notes that finished and unfinished drill pipe products are made by different producers, sold to different customers, and face competition from different types of subject imports.
90 CR at I-43; PR at I-29.
91 CR/PR at Table I-5.
92 CR at I-42 n.88; PR at I-28 n.88.
93 CR at I-42; PR at I-28.
find a single domestic like product consisting of both green tubes and finished drill pipe, which is
coextensive with Commerce’s scope of investigation.

2. **Whether the Commission Should Find Premium Drill Pipe to be a Separate Domestic Like Product from API-Grade Drill Pipe**

   Although not raised by the parties in the preliminary phase and not addressed by the Commission
   in its preliminary views, the parties disagree in the final phase of these investigations as to whether the
   Commission should find premium drill pipe to be a separate domestic like product from API-grade drill
   pipe. Petitioners contend that premium drill pipe is a separate like product from API-grade drill pipe.94
   Respondents argue that premium drill pipe is part of a continuum and is not a separate like product.95

   **Physical characteristics and uses.** API-grade and premium drill pipe are both derived from green
   tubes.96 In their questionnaire responses, responding U.S. producers typically indicated that there was a
   commonality between premium and API-grade drill pipe in terms of appearance, shape, size, and uses.97
   Premium drill pipe typically contains alloy additions that enhance its toughness, and may also have thread
   designs that differ from API standards for certain operational conditions.98 U.S. producers indicated that
   premium drill pipe can outperform API-grade drill pipe insofar as high-risk drilling utilizes premium drill
   pipe for extreme reach drilling projects, high pressure or high temperature wells, and deep water drilling
   environments.99 Nevertheless, there is a continuum in terms of yield strength in API-grade drill pipe,
   blurring any distinction between it and premium drill pipe.100 U.S. purchasers identified similar
   applications for premium drill pipe.101

   **Common manufacturing facilities and employees.** Similar production processes are used to
   produce both premium and API-grade drill pipe, although premium drill pipe may be subjected to more
   extensive heat-treating processes and more rigorous testing procedures than API-grade drill pipe.102
   There is overlap between domestic producers of both premium and API-grade drill pipe, and producers
   use the same facilities for producing both premium and API-grade drill pipe.103 In their questionnaire
   responses, U.S. producers generally agreed that premium drill pipe and API-grade drill pipe use the same
   overall manufacturing processes, although specific additional steps may be required for premium pipe.104
   U.S. purchaser responses were sparse, but generally similar in indicating a commonality in production
   processes.105

   **Interchangeability.** As we consider the extent to which premium and API-grade drill pipe is
   interchangeable, we bear in mind that API-grade drill pipe of differing grades is generally not

---

94 Petitioners’ Prehearing Br. at 29.
95 Respondents’ Prehearing Br. at 45.
97 CR at I-33; PR at I-24.
98 CR at I-16; PR at I-11.
99 CR at I-33-34; PR at I-24.
100 Respondents’ Posthearing Br. at 45-47.
101 CR at I-34; PR at I-24.
102 CR at I-19; PR at I-14.
103 See e.g., CR/PR at Appendix D.
104 CR at I-34; PR at I-24.
105 CR at I-34; PR at I-24.
In their questionnaire responses, responding U.S. producers generally agreed that premium drill pipe and API-grade drill pipe are not interchangeable. U.S. purchasers tended to hold similar views regarding the limitations in interchangeability between premium and API-grade drill pipe, although several noted that one-way interchangeability was possible.

Customer and producer perceptions. As discussed above, both Petitioners and Respondents contend that premium drill pipe is perceived to be of a higher quality, but Respondents argue that this does not provide a clear dividing line. In their questionnaire responses, U.S. producers generally agreed that premium drill pipe is perceived to be a more technically advanced product or an upgrade to API-grade drill pipe. U.S. purchasers focused on higher performance and quality, with some noting that premium drill pipe would only be used when required by drilling conditions. In this respect, customers and producers likewise perceive that drill pipe of different API grades is distinct, given that they differ in tensile strength.

Channels of distribution. API-grade drill pipe is sold mostly to end users with almost all of the remaining share sold to distributors. Similarly, although to a lesser extent, premium drill pipe is sold to end users with the remaining share sold to distributors.

Price. Average unit values ("AUVs") for premium drill pipe exceeded those for API-grade drill pipe throughout the period examined, with a differential of more than $3,000 in 2009. However, even prices for API-grade drill pipe can vary widely depending upon differing API specifications, tending to blur distinctions between the prices for premium and API-grade drill pipe.

Conclusion. We find that premium drill pipe is not a separate domestic like product from API-grade drill pipe because, under our six-factor analysis, there does not appear to be any clear dividing line between them. On balance, based upon the record in the final phase of these investigations, we find a single like product consisting of a continuum of both API-grade drill pipe (finished and unfinished) and premium drill pipe, which is coextensive with Commerce’s scope. Notwithstanding differences in price and customer and producer perceptions and limited interchangeability, the record reflects substantial similarities between API-grade and premium drill pipe with respect to physical characteristics and uses,

---

106 CR at I-15 n.17, PR at I-11 n.17 (noting for API grades of standard drill pipe differing in tensile strength, the pulling force at which the material will fail). See e.g., Respondents’ Prehearing Br. at 45-46.
107 CR a I-34; PR at I-24.
109 CR at I-35; PR at I-24.
110 CR at I-35; PR at I-24.
111 CR at I-15 n.7; PR at I-11 n.17; Respondents’ Prehearing Br. at 45-46.
112 CR/PR at Table I-6.
113 CR/PR at Table I-6.
114 See e.g., CR/PR at Table I-7.
115 Compare CR/PR at Table V-2 (5" G-105 drill pipe) with CR/PR at Table V-4 (5" S-135 drill pipe).
116 In a prior case, the Commission stated that “a lack of interchangeability among products comprising a continuum is not unexpected and not inconsistent with finding a single like product.” Carbon and Certain Alloy Steel Wire Rod from China, Germany, and Turkey, Inv. Nos. 731-TA-1099-1101 (Preliminary), USITC Pub. 3832 (January 2006) at 10; Stainless Steel Bar from France, Germany, Italy, Korea, and the United Kingdom, Inv. Nos. 701-TA-413 (Final) and 731-TA-913-916 and 918 (Final), USITC Pub. 3488 (February 2002) at 6-7; Certain Cold-Rolled Steel Products from Argentina, Australia, Belgium, Brazil, China, France, Germany, India, Japan, Korea, the Netherlands, New Zealand, Russia, South Africa, Spain, Sweden, Taiwan, Thailand, Turkey, and Venezuela, USITC Pub. 3471 (November 2001) at 7; Carbon and Certain Alloy Steel Wire Rod from Brazil, Canada, Egypt, Germany, Indonesia, Mexico, Moldova, South Africa, Trinidad and Tobago, Turkey, Ukraine, and Venezuela, Inv. Nos. 701-TA-417-421 (Preliminary) and 731-TA-953-963 (Preliminary), USITC Pub. 3456 (October 2001) at 6.
production processes, and channels of distribution. Accordingly, we find a single domestic like product, consisting of API-grade and premium drill pipe, which is coextensive with Commerce’s scope.

D. Conclusion

For all of these reasons, we again find a single domestic like product that includes drill pipe and drill collars, whether in finished or unfinished forms, including green tubes, which is coextensive with the scope of these investigations.

III. DOMESTIC INDUSTRY

A. In General

The domestic industry is defined as the domestic “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”117 In defining the domestic industry, the Commission’s general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

In the preliminary phase of these investigations, the parties agreed, and the Commission found, that U.S. operations processing green tubes into finished drill pipe constitute sufficient production-related activities to treat those engaging in these finishing operations as part of the domestic industry. In reaching that conclusion, the Commission noted that drill pipe finishers have substantial capital investments and use significant technical expertise and a large number of employees in the production of drill pipe, and that the parties agreed that finishing operations add significant value to green tubes processed into drill pipe.118 No party challenges this conclusion and there are no new facts that would call it into question. Accordingly, we again find that U.S. operations processing green tubes into finished drill pipe constitute sufficient production-related activities to treat those engaging in these finishing operations as part of the domestic industry (and their finished products as shipments of the domestic like product).

B. Related Parties

We must determine whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 19 U.S.C. § 1677(4)(B). Subsection 1677(4)(B) allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.119 Exclusion of such a producer is within the Commission’s discretion based upon the facts presented in each investigation.120

118 See e.g., USITC Pub. 4127 at 13-14.
120 The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party are as follows: (1) the percentage of domestic production attributable to the importing producer; (2) the reason the U.S. producer has decided to import the product subject to investigation, i.e., whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market, and (3) the position of the related producer vis-a-vis the rest of the industry, i.e., whether inclusion or exclusion of the related party will skew the data for the rest of the industry. See, e.g., Torrington Co. v. United States, 790 F. Supp. 1161 (Ct. Int’l Trade 1992), aff’d mem., 991 F.2d 809 (Fed. Cir. (continued...
1. Preliminary Phase Determinations

In the preliminary phase of these investigations, the Commission found that domestic producer *** was a related party because it was an importer of subject merchandise from China. The Commission also found, however, that appropriate circumstances did not exist to exclude *** from the domestic industry as a related party because its U.S. production operations of finished drill pipe and drill collars were quite large, its imports of subject merchandise were relatively small compared to its U.S. production, and the record did not show, based upon its financial performance during the period examined, that the domestic operations of *** derived a significant benefit from its importation of relatively limited quantities of subject merchandise from China. Moreover, given that *** was the producer of finished drill pipe in the United States, and the *** of finished drill collars, the Commission concluded that excluding *** from the domestic industry would skew the data.

2. Parties’ Arguments

Petitioners argue that the Commission ***. Petitioners argue that *** “directs its Chinese exports to increase profits of its own U.S. operations and decrease other U.S. producers profits,” and benefits from its imports of “low-cost subsidized green tube from China.”

Respondents Downhole and Command argue that the Commission should not exclude *** from the domestic industry. They contend that the record in these final phase investigations shows

---

120 (...)continued

1993). The Commission has also considered the ratio of import shipments to U.S. production for related producers and whether the primary interest of the related producer lies in domestic production or importation. These latter two considerations were cited as appropriate factors in Allied Mineral Products, Inc. v. United States, 28 CIT 1861, 1862 (2004) (“The most significant factor considered by the Commission in making the ‘appropriate circumstances’ determination is whether the domestic producer accrued a substantial benefit from its importation of the subject merchandise.”); USEC, Inc. v. United States, 132 F. Supp. 2d 1, 12 (Ct. Int’l Trade 2001) (“the provision’s purpose is to exclude from the industry headcount domestic producers substantially benefitting from their relationships with foreign exporters.”), aff’d, 34 Fed. Appx. 725 (Fed. Cir. Apr. 25, 2002); S. Rep. No. 249, 96th Cong. 1st Sess. at 83 (1979) (“where a U.S. producer is related to a foreign exporter and the foreign exporter directs his exports to the United States so as not to compete with his related U.S. producer, this should be a case where the ITC would not consider the related U.S. producer to be a part of the domestic industry”).

121 The Commission has concluded that a domestic producer that does not itself import subject merchandise, or does not share corporate affiliation with an importer, may nonetheless be deemed a related party if it controls large volumes of imports. The Commission has found such control to exist where the domestic producer was responsible for a predominant proportion of an importer’s purchases and the importer’s purchases were substantial. See, e.g., Electrolytic Manganese Dioxide from Australia and China, Inv. Nos. 731-TA-1124-1125 (Final), USITC Pub. 4036 (September 2008) at 6 n. 26 (finding the firm’s purchases not to be sufficient for it to be considered a related party); Foundry Coke from China, Inv. No. 731-TA-891 (Final), USITC Pub. 3449 (September 2001) at 8-9. See also SAA at 858.

122 USITC Pub. 4127 at 16.

123 USITC Pub. 4127 at 16.

124 USITC Pub. 4127 at 16. The Commission also found that two U.S. producers that purchased subject imports from China during the period examined, ***, did not qualify as related parties. USITC Pub. 4127 at 16 n.101.

125 See, e.g., Petitioners’ Prehearing Br. at 47-53; Petitioners’ Posthearing Br. at 5-7.

126 Petitioners’ Posthearing Br. at 6.

127 Respondents’ Posthearing Br. at 14-16.
“conclusively that *** is primarily a domestic producer, not an importer.”

They claim that “there is no evidence that *** derived any significant benefit from the importation of subject merchandise.”

3. Analysis

*** qualifies as a related party because it was an importer of subject merchandise from China and ***.

*** reported importing unfinished drill pipe from China in order to make finished drill pipe and finished heavy-weight drill pipe. It also imports some subject finished drill pipe that it sells to its customers. The combined tonnage of its imports of unfinished and finished subject merchandise from China was equivalent to the following percentages of the tonnage of its domestic production of finished drill pipe: *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.

***. Taken together, *** also owns *** that reportedly provided ***.

*** is *** producer of finished drill pipe in the United States, accounting for *** percent of domestic production in 2009. It is the ***, accounting for *** percent of reported U.S. finished drill collar production in 2009.

As indicated above, imports of subject merchandise by *** were substantially less than its production of the domestic like product. Additionally, unfinished drill pipe accounted for most of the subject merchandise imported by ***, which it used to produce the domestic like product. Accordingly, we conclude that the producer’s interests lie primarily in domestic production rather than in the importation of the subject merchandise.

Evaluating the extent to which the domestic operations of *** benefit from, or are shielded by, ***, is challenging. The quantity of its subject imports, while substantial, is dwarfed by the output of its U.S. production operations. With respect to ***, although the company could structure *** so as to avoid inflicting harm upon its U.S. operations, the company’s *** accounted for only a small portion of subject imports of finished and unfinished drill pipe during the period examined.

---

128 Respondents’ Posthearing Br. at 14.
129 Respondents’ Posthearing Br. at 15.
130 See, e.g., CR at III-3; CR/PR at Table III-1 at n.2.
131 See, e.g., CR/PR at Table III-1.
132 See, e.g., CR/PR at Table III-7a n.1.
133 See, e.g., CR at III-7b n.1.
134 Derived from CR/PR at Tables III-7a & III-7b. *** also produces finished drill collars, but does not import unfinished or finished drill collars. *** unfinished drill pipe in the United States.
135 See, e.g., CR/PR at Table III-7a.
136 CR/PR at Table VII-2.
137 CR/PR at Table VII-2.
138 See, e.g., CR/PR at Table III-1.
139 See, e.g., CR/PR at Table III-1.
140 CR/PR at Table III-7a & n.1 and Table III-7b.
141 *** importation of unfinished drill pipes from its *** is significantly larger, but these imports are not relevant to the question of whether to exclude *** as a related party. See e.g., CR/PR at Table VI-2a.
142 See e.g., CR/PR at Table VII-2; Foreign Producer Questionnaire Response of ***.
In terms of its U.S. (finished) drill pipe operations, *** financial performance during the period examined was just moderately above the industry average. Although it is difficult to draw too many conclusions by comparing individual producers’ performances in this industry, due to differences in production size, product mix, and other factors.

In conclusion, we acknowledge that the combination of *** and its imports of subject unfinished and finished drill pipe, arguably place *** in a somewhat different position than other domestic producers. Nevertheless, we do not find that these facts rise to a level of significance that would justify exclusion of *** from the domestic industry. *** U.S. production operations of finished drill pipe and drill collars are quite large, its imports of subject merchandise ***, the ***, and there is no clear evidence of a benefit to its domestic operations from its relationship to subject production and merchandise.

C. Conclusion

Based on the reasons discussed above and consistent with our definition of the domestic like product, we again define the domestic industry as all domestic producers of the domestic like product.

IV. LEGAL STANDARDS

A. In General

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation. In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production

143 Consistent with her practice in past investigations and reviews, Commissioner Aranoff determines whether to exclude a related party based principally on its ratio of subject imports to domestic production and whether its primary interests lie in domestic production or importation. Ordinarily, she does not rely on individual-company operating income margins, which reflect a domestic producer’s financial operations related to production of the domestic like product, in assessing whether a related party has benefitted from importation of subject merchandise. Here, however, the data relating to *** domestic production operations are affected by subject unfinished drill pipe imported from China. Like her colleagues, she finds that the benefit from these importations is relatively small, given that subject merchandise from China accounts for a small share of the unfinished drill pipe that *** consumes in its finished drill pipe production operations.

144 Commissioner Pinkert does not rely upon financial performance as a factor in determining whether appropriate circumstances exist to exclude *** from the domestic industry. He notes in this regard the difficulty in identifying any benefit it might have received from importing unfinished drill pipe from subject sources. CR/PR at Table III-7a.

145 See, e.g., CR/PR at Table VI-2a (unfinished and finished drill pipe: results of operations, by firm). This comparison does not include ***. When these are included, the firm’s operating results are *** than the rest of the industry in 2009.

146 One domestic producer, ***, purchased subject imports of unfinished drill pipe from China during the period examined. The purchases made by *** were extremely small in 2009 and *** did not make any such purchases in interim 2010, although they were larger earlier in the period examined. See e.g., CR/PR at Table III-1. We do not find that *** is a related party in the absence of any indication that it controls large volumes of subject imports via its purchases.

147 19 U.S.C. §§ 1671d(b), 1673d(b).
operations. The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.” In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States. No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”

Although the statute requires the Commission to determine whether the domestic industry is “materially injured or threatened with material injury by reason of” unfairly traded imports, it does not define the phrase “by reason of,” indicating that this aspect of the injury analysis is left to the Commission’s reasonable exercise of its discretion. In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the “by reason of” standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold. In performing its examination, however, the Commission need not

---

148 19 U.S.C. § 1677(7)(B)(i). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each {such} factor ... and explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B).


152 19 U.S.C. §§ 1671d(a), 1673d(a).


154 The Federal Circuit, in addressing the causation standard of the statute, observed that “{a}’s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement.” Nippon Steel Corp. v. USITC, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in Mittal Steel Point Lisas Ltd. v. United States, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting Gerald Metals, Inc. v. United States, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that “this court requires evidence in the record ‘to show that the harm occurred “by reason of” the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.’” See also Nippon Steel Corp. v. United States, 458 F.3d 1345, 1357 (Fed. Cir. 2006); Taiwan Semiconductor Industry Ass’n v. USITC, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

155 SAA at 851-52 (“{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”); S. Rep. 96-249 at 75 (1979) (the Commission “will consider information which indicates that harm is caused by factors other than less-than-fair-value imports.”); H.R. Rep. 96-317 at 47 (1979) (“in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;” those factors include “the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export (continued...)
isolate the injury caused by other factors from injury caused by unfairly traded imports. Nor does the “by reason of” standard require that unfairly traded imports be the “principal” cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry. It is clear that the existence of injury caused by other factors does not compel a negative determination.

Assessment of whether material injury to the domestic industry is “by reason of” subject imports “does not require the Commission to address the causation issue in any particular way” as long as “the injury to the domestic industry can reasonably be attributed to the subject imports” and the Commission “ensure[s] that it is not attributing injury from other sources to the subject imports.” Indeed, the

155 (...)continued

performance and productivity of the domestic industry”); accord Mittal Steel, 542 F.3d at 877.

156 SAA at 851-52 (“[T]he Commission need not isolate the injury caused by other factors from injury caused by unfair imports.”); Taiwan Semiconductor Industry Ass’n v. USITC, 266 F.3d 1339, 1345 (Fed. Cir. 2001) (“[T]he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports.”) (emphasis in original); Asociacion de Productores de Salmon y Trucha de Chile AG v. United States, 180 F. Supp. 2d 1360, 1375 (Ct. Int’l Trade 2002) (“[t]he Commission is not required to isolate the effects of subject imports from other factors contributing to injury” or make “bright-line distinctions” between the effects of subject imports and other causes.); see also Softwood Lumber from Canada, Invs. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that “[i]f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, i.e., it is not an ‘other causal factor,’ then there is nothing to further examine regarding attribution to injury”), citing Gerald Metals, Inc. v. United States, 132 F.3d 716, 722 (Fed. Cir. 1997) (the statute “does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.”).

157 See Nippon Steel Corp., 345 F.3d at 1381 (“an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the ‘dumping’ need not be the sole or principal cause of injury.”).

158 Mittal Steel, 542 F.3d at 877-78; see also id. at 873 (“While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured ‘by reason of’ subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.”) citing United States Steel Group v. United States, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75.

159 Commissioner Pinkert does not join this paragraph or the following three paragraphs. He points out that the Federal Circuit, in Bratsk, 444 F.3d 1369, and Mittal, held that the Commission is required, in certain circumstances when considering present material injury, to undertake a particular kind of analysis of nonsubject imports, albeit without reliance upon presumptions or rigid formulas. Mittal explains as follows:

What Bratsk held is that “where commodity products are at issue and fairly traded, price-competitive, nonsubject imports are in the market,” the Commission would not fulfill its obligation to consider an important aspect of the problem if it failed to consider whether nonsubject or non-LTFV imports would have replaced LTFV subject imports during the period of investigation without a continuing benefit to the domestic industry. 444 F.3d at 1369. Under those circumstances, Bratsk requires the Commission to consider whether replacement of the LTFV subject imports might have occurred during the period of investigation, and it requires the Commission to provide an explanation of its conclusion with respect to that factor.

542 F.3d at 878. Commissioner Pinkert notes that such an analysis is unnecessary here because, without resorting to it, he finds an absence of present material injury by reason of subject imports.
The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”

The Federal Circuit’s decisions in Gerald Metals, Bratsk, and Mittal Steel all involved cases where the relevant “other factor” was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit’s guidance in Bratsk as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports. The additional “replacement/benefit” test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago determination that underlies the Mittal Steel litigation.

Mittal Steel clarifies that the Commission’s interpretation of Bratsk was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have “evidence in the record” to “show that the harm occurred ‘by reason of’ the LTFV imports,” and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports. Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to Bratsk.

The progression of Gerald Metals, Bratsk, and Mittal Steel clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard. Congress has delegated this factual finding to the Commission because of the agency’s institutional expertise in resolving injury issues.

---

161 Nucor Corp. v. United States, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); see also Mittal Steel, 542 F.3d at 879 (“Bratsk did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was ‘by reason’ of subject imports.”).

162 Mittal Steel, 542 F.3d at 875-79.

163 Mittal Steel, 542 F.3d at 873 (quoting from Gerald Metals, 132 F.3d at 722), 875-79 & n.2 (recognizing the Commission’s alternative interpretation of Bratsk as a reminder to conduct a non-attribution analysis).

164 Commissioner Lane also refers to her dissenting views in Polyethylene Terephthalate Film, Sheet, and Strip from Brazil, China, Thailand, and the United Arab Emirates, Invs. Nos. 731-TA-1131 to 1134 (Final), USITC Pub. 4040 (Oct. 2008), for further discussion of Mittal Steel.

165 To that end, after the Federal Circuit issued its decision in Bratsk, the Commission began to present published information or send out information requests in final phase investigations to producers in nonsubject countries that accounted for substantial shares of U.S. imports of subject merchandise (if, in fact, there were large nonsubject import suppliers). In order to provide a more complete record for the Commission’s causation analysis, these requests typically seek information on capacity, production, and shipments of the product under investigation in the major source countries that export to the United States. The Commission plans to continue utilizing published or requested information in final phase investigations in which there are substantial levels of nonsubject imports.

166 We provide in our respective discussions of volume, price effects, and impact a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

167 Mittal Steel, 542 F.3d at 873; Nippon Steel Corp., 458 F.3d at 1350, citing U.S. Steel Group, 96 F.3d at 1357; S. Rep. 96-249 at 75 (“The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.”).
B. Material Injury by Reason of Subject Imports

In evaluating the volume of subject imports, section 771(7)(C)(I) of the Tariff Act provides that
the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that
volume, either in absolute terms or relative to production or consumption in the United States, is
significant.”168

In evaluating the price effects of the subject imports, section 771(7)(C)(ii) of the Tariff Act
provides that the Commission shall consider whether –

(I) there has been significant price underselling by the imported merchandise as
compared with the price of domestic like products of the United States, and

(II) the effect of imports of such merchandise otherwise depresses prices to a significant
degree or prevents price increases, which otherwise would have occurred, to a significant
degree.169

In examining the impact of subject imports, section 771(7)(C)(iii) of the Tariff Act provides that
the Commission “shall evaluate all relevant economic factors which have a bearing on the state of the
industry.”170 These factors include output, sales, inventories, ability to raise capital, research and
development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors
are considered “within the context of the business cycle and conditions of competition that are distinctive
to the affected industry.”171

C. Threat of Material Injury by Reason of Subject Imports

Section 771(7)(F) of the Tariff Act directs the Commission to determine whether the U.S.
industry is threatened with material injury by reason of the subject imports by analyzing whether “further
dumped or subsidized imports are imminent and whether material injury by reason of imports would
occur unless an order is issued or a suspension agreement is accepted.”172 The Commission may not make
such a determination “on the basis of mere conjecture or supposition,” and considers the threat factors “as
a whole” in making its determination whether dumped or subsidized imports are imminent and whether
material injury by reason of subject imports would occur unless an order is issued.173 In making our
determination, we consider all statutory threat factors that are relevant to these investigations.174

170 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851 and 885 (“In material injury determinations, the Commission
considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in
some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing
difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.”).
171 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885; Live Cattle from Canada and Mexico, Inv. Nos. 701-
174 These factors are as follows:

(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering
authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy
described in Article 3 or 6.1 of the Subsidies Agreement) and whether imports of the subject merchandise
are likely to increase,

(continued...)

21
V. CONDITIONS OF COMPETITION AND THE BUSINESS CYCLE

The following conditions of competition inform our analysis of whether there is material injury or threat of material injury by reason of subject imports.

A. Data Considerations

1. Use of Questionnaire Data in Lieu of Official U.S. Import Statistics

Petitioners contend that it is not appropriate to use data from importers’ questionnaire responses because they are not sufficiently complete, when considered in relation to official Census Bureau Import Statistics. Respondents Downhole and Command urge the Commission to use data from importer questionnaire responses and to cross-reference PIERS data with Customs data.

Our normal practice is to collect import data both through importer questionnaires and from official import statistics, and we determine our preferred data source on a case-by-case basis. Here, we

174 (...continued)
(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,

(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,

(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices and are likely to increase demand for further imports,

(V) inventories of the subject merchandise,

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products.

* * *

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).

19 U.S.C. § 1677(7)(F)(i). In the analyses of both the majority and dissenting Commissioners, the applicable statutory threat factors are discussed using the same volume/price/impact framework that applies to the analysis of material injury. Statutory threat factors (I), (II), (III), (V), and (VI) are discussed in the analysis of subject import volume. Statutory threat factor (IV) is discussed in the price effects analysis, and statutory threat factor (IX) is discussed in the impact analysis. Statutory threat factor (VII) is inapplicable, as no imports of agricultural products are involved in this investigation. No argument was made that the domestic industry is currently engaging or will imminently engage in any efforts to develop a derivative or more advanced version of the domestic like product, which would implicate statutory threat factor (VIII).

175 In addition to the issues discussed in this section, we note that there is an additional issue as to *** reported financial data, including its recognition of various costs. This issue is addressed below in both the majority and dissenting views respectively.

176 See, e.g., Petitioners’ Prehearing Br. at 28-35.
177 See, e.g., Respondents’ Prehearing Br. at 40.
elect to rely on importer questionnaire data for subject import volume. Our rate of coverage is estimated to exceed 90 percent of U.S. imports of drill pipe and drill collars, and we find that official import statistics are not sufficiently accurate to be the best available data source.

2. ***’s Finishing Operations in ***

A portion of *** finished drill pipe was ***. Respondents Downhole and Command agreed with Petitioners that tool-joining operations substantially transform unfinished drill pipe into finished drill pipe but did not specifically address *** should be treated as nonsubject merchandise.

We have treated these products as nonsubject merchandise, not domestic production. Attaching a tool joint to an unfinished drill pipe is a technically complicated operation requiring

---

178 The Staff Report explains our methodology for calculating the coverage estimate for subject imports based upon questionnaire data as follows:

Staff’s coverage estimate began with official import statistics by value (since quantity is not collected using a uniform standard). Staff subtracted from this figure imports from China of casing, tubing, and tubing spools, tubing and casing heads and valve bodies recorded in Customs drill pipe data for the following companies: ***. No data were excluded simply on the basis of a “No” questionnaire response; all exclusions were based on a combination of documentation or follow-up telephone interviews. Then, Staff subtracted the value of ***. Next, Staff added the value of reported imports of drill pipe that were entered under incorrect HTS statistical reporting numbers. Then, Staff evaluated these data against questionnaire value data for unfinished and finished drill pipe from China, and calculated a coverage figure for drill pipe from China.

After calculating the questionnaire coverage for drill pipe from China, Staff estimated that the value of imports of drill collars from China was 10 percent of the target figure for drill pipe, based on estimates by market participants that drill collars account for 5-10 percent of the combined length of drill pipe and drill collars on the drill string. Staff believes this to be a conservative estimate, but official import statistics are not available for drill collars. Finally, Staff calculated coverage based on the combined importer questionnaire responses for drill pipe and drill collars from China relative to the target level of drill pipe imports plus 10 percent. The result of this estimate is over 90 percent coverage.

CR at IV-2 n.4; PR at IV-1-2 n.4.

179 According to Customs data and official import statistics, certain importers accounting for a large portion of imports from China in 2008-2009 certified that they did not import as much, and in some cases, any, drill pipe as reported in the official import statistics. Instead, many of these entries were forms of OCTG now covered by antidumping and countervailing duties. CR/PR at IV-1 n.3; CR at II-12 n.13; PR at II-9 n.13. In addition, a substantial volume of drill pipe was mis-classified in 2010, distorting the official import statistics upon which the Commission might have otherwise relied. Because of these inconsistencies, which resulted in a mis-statement of the volume of imports captured by the official import statistics, and since the questionnaire responses are a more accurate reflection of the volume of imports with more than 90 percent coverage, we rely on importer questionnaire responses instead of official import statistics to measure imports. See e.g., CR/PR at IV-1.

180 See e.g., CR at IV-7 n.8; PR at IV-6 n.8.

181 Petitioners’ Prehearing Br. at 53-57.

182 Hearing Tr. at 229.

183 See e.g., CR at IV-7 n.8; PR at IV-6 n.8.
significant capital and adding substantial value. The merchandise at issue does not become finished drill pipe until tool joints are added ***.

B. Demand Conditions

Because drill pipe and drill collars are used in the drilling activity related to oil and natural gas wells, U.S. demand for drill pipe is closely linked to demand for those products. One indicator of such demand are the prices for oil and gas. Monthly prices for oil and gas increased irregularly from January 2007 through June 2008, and then generally declined during the remainder of 2008. The price of oil has recovered somewhat from the low level reached in early 2009, but the price of natural gas has generally remained relatively lower throughout 2009 and the early months of 2010 compared to earlier in the period examined.

Another indicator of U.S. demand for oil and natural gas, and the related demand for drill pipe and drill collars, is the extent of new drilling activity. Industry participants reported tracking demand using the number of active rigs drilling for oil and natural gas in the United States and the footage being drilled. During the period examined, drilling activity for oil and natural gas (as measured by footage drilled) generally increased between January 2007 and October 2008, after which it declined sharply until May 2009, then returned to close to 2007 levels by 2010. Based on an analysis of active rigs, the partial recovery in drilling activity in 2010 reflects relatively greater activity in land-based rigs drilling for oil, as well as a growing emphasis on horizontal drilling operations. Drilling activity in shale regions for oil and gas has contributed importantly to these trends, offsetting a decline in offshore drilling activity.

Finally, demand for drill pipe and drill collars is influenced by the useful life of the merchandise. Drill pipe has an average useful life of two to three years, which is far beyond the normal period of time for drilling a well, and can often be refurbished and reused in drilling another well. Moreover, drill pipe and drill collars on idled rigs can be transferred to active rigs. Thus, when rig activity declines, large contractors and rental companies can be left with inventories of drill pipe, thus lowering their demand for replacement drill pipe.

Most responding U.S. producers (12 of 13), importers (21 of 24), and purchasers (30 of 33) reported that demand had decreased or fluctuated during the period examined. Apparent U.S. consumption of finished drill pipe and collars declined by *** percent from 2007 to 2009, and was *** percent lower in January-June 2010 than in January-June 2009. Apparent U.S. consumption of

---

184 See, e.g., CR at II-18-20; PR at II-11-13.
185 CR/PR at Figures II-3 & II-4.
186 CR/PR at Figures II-3 & II-4.
187 CR at II-19; PR at II-13.
188 See, e.g., Confer. Tr. at 106-107 (Fields, Morris, Williamson)
189 CR/PR at Figure II-2.
191 See, e.g., CR at II-19; PR at II-13; Hearing Tr. at 267-270.
192 See, e.g., Confer. Tr. at 66-67 (Schagrin, Fields); Hearing Tr. at 267 (Mostwoway).
193 See, e.g., Hearing Tr. at 67 (Fields), 73-74 (Morris), 110-112 (Schagrin, Brand, and Morris), 124 (Chen), and 146-147 (Lesco).
194 CR at II-22; PR at II-15.
195 See e.g., CR/PR at Table C-2. Apparent U.S. consumption of finished drill pipe and drill collars was *** short tons in 2007, *** short tons in 2008, *** short tons in 2009, *** short tons in January-June 2009, and ***
unfinished drill pipe and collars declined by *** percent from 2007 to 2009, and was *** percent lower in January-June 2010 than in January-June 2009.\textsuperscript{196}

C. \textbf{Supply Conditions}

During the period examined, the U.S. market was supplied by the domestic industry, subject imports from China, and imports from nonsubject sources.\textsuperscript{197} Although nonsubject imports of finished drill pipe and drill collars were an important factor in the U.S. market during 2007 and into 2008, they played a diminishing role thereafter.\textsuperscript{198} The presence of nonsubject imports of unfinished drill pipe in the U.S. market, in contrast, was substantial throughout the period examined.\textsuperscript{199}

U.S. producers’ market share for finished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.\textsuperscript{200} The market share of subject imports from China of finished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.\textsuperscript{201} The market share for nonsubject imports of finished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.\textsuperscript{202}

U.S. producers’ market share for unfinished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.\textsuperscript{203} The market share of subject imports from China of unfinished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.\textsuperscript{204} The market share for nonsubject imports of unfinished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010.\textsuperscript{205}

The leading U.S. producer of finished drill pipe is NOV Grant Prideco, followed by RDT, Smith, TSC, and VAM.\textsuperscript{206} The leading U.S. producer of finished drill collars is Smith followed by NOV Grant

\textsuperscript{195} (...continued)

\textsuperscript{196} See e.g., CR/PR at Table C-1. Apparent U.S. consumption of unfinished drill pipe and drill collars was *** short tons in 2007, *** short tons in 2008, *** short tons in 2009, *** short tons in January-June 2009, and *** short tons in January-June 2010. CR/PR at Table C-1.

\textsuperscript{197} Imports of unfinished drill collars from any source are believed to have been limited. See, e.g., CR/PR at Table IV-2a, Table IV-2b, and Table IV-2d.

\textsuperscript{198} See, e.g., CR/PR at Table C-2. The market share of nonsubject imports of finished drill pipe and drill collars was *** percent of apparent U.S. consumption in 2007, *** percent in 2008, *** percent in 2009, *** percent of apparent U.S. consumption in interim 2009, and *** percent in interim 2010. Id.

\textsuperscript{199} See, e.g., CR/PR at Table C-1. The market share of nonsubject imports of unfinished drill pipe was *** percent of apparent U.S. consumption in 2007, *** percent in 2008, *** percent in 2009, *** percent in interim 2009, and *** percent in interim 2010. Id.

\textsuperscript{200} See, e.g., CR/PR at Table C-2.

\textsuperscript{201} See, e.g., CR/PR at Table C-2.

\textsuperscript{202} See, e.g., CR/PR at Table C-2.

\textsuperscript{203} See, e.g., CR/PR at Table C-1.

\textsuperscript{204} See, e.g., CR/PR at Table C-1.

\textsuperscript{205} See, e.g., CR/PR at Table C-1.

\textsuperscript{206} See, e.g., CR/PR at Table III-1.
Prideco. The leading U.S. producer of unfinished drill pipe is Timken, followed by U.S. Steel and TMK. The only reporting U.S. producers of unfinished drill collars are Timken and Sunbelt.

Supply constraints existed early in the period examined but these were eased substantially as demand for drill pipe and drill collars declined sharply in 2009 and remained lower in 2010. For U.S. producers of finished drill pipe in 2007 and 2008, unused capacity was limited, inventories were low, order books were strong, and lead times were extended. By contrast, in 2009 U.S. order books were nearly empty, capacity utilization was low, lead times had fallen and inventory levels had risen (particularly as a share of total shipments). In first-half 2010, U.S. producer order books and lead times ticked upward but capacity utilization remained anemic.

D. Substitutability

There is a moderate to high degree of interchangeability among the domestic like product, subject imports, and nonsubject imports for products of the same type. The vast majority of U.S. producers, importers and purchasers reported that products from domestic, subject, and nonsubject sources were always or frequently interchangeable. Most purchasers ranked quality, price, and availability as the most important factors in purchasing decisions.

The fact that some domestic producers produce premium drill pipe products but subject producers in China do not is a limitation on the substitutability of domestic and subject imported products. During the period examined, premium products grew as a share of finished goods consumption from less than percent in 2007 to more than percent in 2009, before falling back below percent in the first half of 2010. The remainder of the U.S. market is nonpremium API-grade drill pipe.

---

207 See, e.g., CR/PR at Table III-1.
208 See, e.g., CR/PR at Table III-1.
209 See, e.g., CR/PR at Table III-1.
210 Discounting the data of a single small company that reported anomalous capacity, the domestic industry’s capacity utilization for finished drill pipe was percent in 2007 and percent in 2008. CR/PR at Table III-1 and questionnaire response of ***. See also, CR/PR at Table III-6b. (US. producers’ inventories of finished drill pipe); CR/PR at Table III-5 (order books); and CR/PR at Tables II-1 & II-2 (lead times).
211 See, e.g., CR/PR at Tables C-1, C-2, II-1, II-2, III-3b, III-5, & III-6b.
212 See, e.g., CR/PR at Tables C-1, C-2, II-1, II-2, III-3b, III-5, & III-6b.
213 CR at II-27; PR at II-19.
214 Ten of twelve U.S. producers (when comparing drill pipe) and six of eight producers (when comparing drill collars) reported that U.S.-produced drill pipe and drill collars and imports from China are always or frequently interchangeable. Fourteen of 17 U.S. importers (when comparing drill pipe) and 13 of 17 importers (when comparing drill collars) reported that U.S.-produced drill pipe and drill collars and imports from China are always or frequently interchangeable. Eighteen of 20 U.S. purchasers (when comparing drill pipe) and 16 of 19 purchasers (when comparing drill collars) reported that U.S.-produced drill pipe and drill collars and imports from China are always or frequently interchangeable. See, e.g., CR/PR at Table II-7.
215 See, e.g., CR/PR at Table II-5. Quality was the most frequently reported “most important” factors; price was the most frequently reported second “most important” factor; and availability was the most frequently reported third “most important” factor. CR/PR at Table II-5.
216 See, e.g., CR/PR at Table II-5.
217 See, e.g., CR/PR at Tables C-2, D-1, & D-2.
E. Raw Material Costs

The key raw materials for drill pipe and drill collar production include steel billets, bars, tube bodies, and tool joints.\(^{218}\) Raw materials as a share of cost of goods sold for U.S. producers of finished drill pipe and drill collars increased slightly from 64.1 percent in 2007 to 68.2 percent in 2008, decreased to 66.5 percent in 2009, and was 68.5 percent in the first half of 2010.\(^{219}\) Raw materials as a share of cost of goods sold for U.S. producers of unfinished drill pipe and drill collars dropped from *** percent in 2007 to *** percent in 2008 to *** percent in 2009, and was *** percent in the first half of 2010.\(^{220}\) The price of scrap used to make billets, bars, tube bodies, and tool joints was relatively stable during 2007.\(^{221}\) It doubled over the first three quarters of 2008 before decreasing below early 2007 levels in the final quarter of 2008, and then increased irregularly in 2009 and 2010.\(^{222}\)

VI. THREAT OF MATERIAL INJURY BY REASON OF SUBJECT IMPORTS\(^{223}\)

Based on the record in the final phase of these investigations, we find that an industry in the United States is threatened with material injury by reason of imports of drill pipe and drill collars from China that Commerce has found are sold at LTFV and subsidized by the Government of China.

A. Likely Volume of Subject Imports from China\(^{224}\)\(^{225}\)

In considering the likely volume of cumulated subject imports, we first examined volume trends during the period examined. In absolute terms, the volume of subject imports of finished drill pipe and drill collars increased from *** short tons in 2007 to *** short tons in 2008, and then, when the U.S. drill

---

\(^{218}\) See, e.g., CR at V-1.
\(^{219}\) Derived from CR/PR at Tables VI-1b & VI-1d.
\(^{220}\) Derived from CR/PR at Tables VI-1a & VI-1c.
\(^{221}\) See, e.g., CR/PR at V-1 & Figure V-1.
\(^{222}\) See, e.g., CR/PR at V-1 & Figure V-1.
\(^{223}\) Negligibility under 19 U.S.C. § 1677(24) is not an issue in these investigations, as the volume of subject imports is well above the statute’s three percent negligibility level. See e.g., CR at IV-12.
\(^{224}\) In its final countervailing duty determination regarding imports of drill pipe and drill collars from China, Commerce assigned a countervailable subsidy rate of 18.18 percent ad valorem for both specific Chinese producers and for “all others.” Commerce also determined in its final determination that certain producers in China were selling drill pipe and drill collars in the U.S. market at less than fair value. Commerce found that dumping margins were de minimus for two Chinese producers/exporters of drill pipe and drill collars, calculated a dumping margin of 69.32 percent ad valorem for specific Chinese producers of drill pipe and drill collars, and a dumping margin of 429.95 percent ad valorem for “all others.” See e.g., CR/PR at Tables I-2 to I-3; 76 Fed. Reg. 1971 (Jan. 11, 2011); 76 Fed. Reg. 1966 (Jan. 11, 2011).
\(^{225}\) For purposes of these final determinations, we cross-cumulate the dumped subject imports from China with the subsidized imports of subject merchandise from China. Cross cumulation is the cumulation of subsidized imports with dumped imports and includes the situation in which the dumped and subsidized imports are one and the same as well as situations in which they differ to some extent. See, e.g., Bingham & Taylor v. United States, 815 F.2d 1482 (Fed. Cir. 1987); Softwood Lumber from Canada, Invs. Nos. 701-TA-414 (Final) and 731-TA-928 (Final), USITC Pub. 3509 at 29 (May 2002); Circular Welded Carbon Quality Steel Line Pipe from China, Inv. No. 731-TA-1149 (Final), USITC Pub. 4075 at 4 (May 2009). We note that the cumulated subject imports that have been dumped and/or subsidized are the subject of investigations that resulted from petitions filed the same day, none of the exceptions to cumulation apply, and there is no question that the identical dumped and subsidized imports compete with each other and the domestic like product.
pipe market contracted due to the global economic downturn, dropped to *** short tons in 2009. Subject imports of finished product were *** short tons in interim 2009 and *** short tons in interim 2010.226 227

The U.S. market share of imports of finished drill pipe and drill collars from China fluctuated during the period examined, ended higher than where it started, and was significant throughout. The market share of Chinese imports of finished drill pipe and drill collars increased irregularly between 2007 and 2009, growing from *** percent in 2007 to *** percent in 2008, and then dropping to *** percent in 2009, although remaining above 2007 levels.228 Subject finished market share was *** percent in interim 2009 and *** percent in interim 2010, although, as discussed below, subject imports sharply increased from the second half of 2009 to the first half of 2010.229 Subject imports of finished drill pipe and drill collars from China maintained a much larger share of the U.S. market than did such imports from all nonsubject countries combined after 2007.230

The participation of suppliers of Chinese product in the U.S. market has evolved and grown over the period in ways that indicate further expansion is imminent. During the preliminary phase of these investigations importer respondents indicated that subject imports were limited to sales to smaller customers to whom domestic producers had no interest in making sales.231 Information on the record in the final phase of these investigations shows this is no longer the case. Importers of Chinese product have

---

226 Our determination of threat of material injury is based on a consideration of both finished drill pipe and collars and unfinished drill pipe and collars, all of which are part of a single domestic like product. Much of the data has been compiled separately for finished and unfinished products to avoid double-counting.

Our discussion most often focuses on the market for finished drill pipe and collars because in terms of key factors such as number of employees, and the value of consumption, the portion of the market for finished drill pipe and collars is much larger than the portion for unfinished drill pipe and collars. The parties have similarly focused their arguments mainly on the finished products. Nevertheless, we also consider and evaluate the market relating to unfinished drill pipe and collars.

In absolute terms, the volume of subject unfinished drill pipe and drill collars increased from *** short tons in 2007 to *** short tons in 2008, and then fell to *** short tons in 2009. Subject imports of unfinished drill pipe and drill collars were *** short tons in interim 2009 and *** short tons in interim 2010. See e.g., CR/PR at Table C-1.

227 U.S. importers’ reported orders for future imports of finished drill pipe from China were *** short tons for July-September 2010, and *** for the next three quarters. U.S. importers’ orders for future imports of drill collars and unfinished drill pipe from China were *** for July 2010 through June 2011. CR/PR at Table VII-5. We find that this cessation of orders for future imports is explained by Commerce’s preliminary subsidy and LTFV determinations, which occurred in June and August, 2010, respectively. Importers entering subject merchandise subsequent to these determinations were required to post a cash deposit or bond in the amount of the preliminary margins; such a requirement adds a cost to imports and would be expected to suppress import quantities. We therefore do not find the reported limited future order quantities by U.S. importers to be indicative of likely future volumes of subject imports in the absence of countervailing duty or antidumping duty orders.

228 See, e.g., CR/PR at Table C-2.

229 See, e.g., CR/PR at Table C-2.

230 See, e.g., CR/PR at Table C-2. The market share of subject imports of unfinished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, and *** percent in interim 2010. Market share of nonsubject imports of unfinished drill pipe and drill collars was *** percent in 2007, *** percent in 2008, *** percent in 2009, and *** percent in interim 2010. See e.g., CR/PR at Table C-1. Thus, the nonsubject imports of unfinished drill pipe and drill collars possessed a much larger share of the U.S. market than did subject imports of unfinished drill pipe and drill collars during the period examined.

231 See, e.g., USITC Pub. No. 4127 at 30 n.226; See also, Testimony of Irene Chen: “(S)ubject imports don't even compete with the U.S. producers for the same customers. ... The U.S. producers completely dominate sales of drill pipe to the large drilling contractors. I believe there's only a few, a handful, about five or six, and their supply is locked up through long term, high volume contracts.” Conf. Tr. at 130; Testimony of Charlie Garvey: “Our customers generally are small, independently owned companies in Canada and the United States.” Conf. Tr. at 135.
recorded sales to the largest U.S. purchasers. By the end of the period examined, most of the largest U.S. customers for drill pipe and drill collars reported purchasing subject merchandise.232 233

Subject suppliers’ emergence as providers to even the largest U.S. purchasers is consistent with the most recent import and market share data. After declining from *** short tons in first-half 2009 to *** short tons in second-half 2009, subject import volume rebounded in first-half 2010 to *** short tons. Subject import market share fell from a period-high *** percent in first-half 2009 to *** percent in second-half 2009, and then rose to *** percent in first-half 2010.234 The fact that suppliers of Chinese product have broken through a major prior limitation on their reach in the U.S. market is an indication that their U.S. market share is poised to increase.

The presence of subject imports in the United States has grown in other ways as well. New importers have entered the U.S. market during the period examined, including at least one that is affiliated with a large Chinese producer of drill pipe.235 The number of importers holding inventories of finished drill pipe grew from five at the end of 2009 to seven at the end of June 2010.236

U.S. importers have increased their inventories of Chinese product over the period examined even as the U.S. market for drill pipe and collars has shrunk. Subject inventories of finished drill pipe and drill collars increased by *** percent from 2007 to 2009 and remained at near period-high levels through the first half of 2010.237 U.S. importers’ inventories of subject imports were *** short tons in 2007, *** short tons in 2008, *** short tons in 2009, and remained at *** short tons in the first half of 2010.238 Although the volume of importer inventories may have been somewhat modest in the context of robust market conditions early in the period, their significance grew as U.S. demand dropped. As of June 30, 2010, U.S. importers held subject imports of finished drill pipe and drill collars equivalent to almost *** percent of annualized 2010 apparent U.S. consumption.239 In a recovering market, these aggressively priced subject imports will be attractive to U.S. purchasers.240

We find further support for the imminent likely expansion of subject import market presence in the fact that the industry in China is large and growing. Data reported in questionnaire responses by

---

232 See, e.g., CR at II-7; PR at II-6 (four of the top six purchasers by rig ownership, and five of six by purchase value, reported purchasing or importing directly subject merchandise from China). ***. CR at V-23; PR at V-10.

233 Commissioner Pinkert notes that subject imports of unfinished drill pipe sharply increased their share of the U.S. market from *** percent in 2007 to *** percent in 2009, before dropping in interim 2010 to *** percent. CR/PR at C-1.

234 The Commission compiled half-year data in order to ensure a full understanding of the changing economic conditions, including conditions related to the recession, relevant to the market for drill pipe and collars at the end of the period examined. We note that there is no indication that the market for drill pipe and collars is seasonal in a way that could distort comparisons based on half-year increments.

235 CR at IV-8, n.9; PR at IV-6, n.9. *** is a significant Chinese producer of drill pipe, but did not provide a foreign producer questionnaire response.

236 CR at VII-14; PR at VII-9.

237 See, e.g., CR/PR at Table C-2.

238 See, e.g., CR/PR at Table C-2.

239 Derived from CR/PR at Table C-2. We note that the URAA amended the statute to “mak[e] it clear that the Commission will consider inventories of the subject merchandise wherever they are located.” SAA at 854.

240 Respondents Command and Downhole assert that their U.S. inventories of subject product have decreased in second-half 2010, after our period of investigation. Respondents’ Posthearing Brief at 13. We find that any decline in subject import inventory levels in second-half 2010 is the natural result of Commerce’s preliminary subsidy and LTFV determinations in mid-2010; as noted above, Commerce’s preliminary determinations imposed deposit or bond requirements on subsequent subject imports. With the pipeline of new imports constricted, a decline in the stocks of previously entered imports is to be expected. We find inventory levels prior to Commerce’s preliminary determinations to be more probative of market conditions absent the pending investigations.
subject producers/exporters in China indicate that capacity to produce finished drill pipe and collars in China increased by *** percent from *** short tons in 2007 to *** short tons in 2009. Responding producers of finished drill pipe and collars in China operated at a fairly high utilization level in 2007 (*** percent), but their reported capacity utilization declined to *** percent in 2008, and fell sharply to *** percent in 2009. In interim 2010, reported capacity utilization was only *** percent. Reported unused Chinese capacity in just the first six months of 2010 *** than the volume of total subject finished drill pipe and collar imports in 2009, the last full year of the period examined. Thus, the reported data suggest large drill pipe and collar production capacity and large available unused capacity in China in the imminent future.

Questionnaire data likely understate significantly the total available Chinese capacity to produce and export drill pipe and drill collars to the United States. Although the response by Chinese producers was substantial, accounting for about 70 percent of subject imports during the period examined, we did not receive questionnaire responses from significant Chinese drill pipe and drill collar producers. A substantial additional segment of the Chinese industry, including two of the largest producers, participates in the U.S. market but is unaccounted for in our data. We conclude that available capacity in China is large and supports a finding that the likely imminent volume of subject imports will be significant.

---

241 Derived from CR/PR at Tables VII-3b & VII-3d. Data reported in questionnaire responses by subject producers/exporters indicate that capacity to produce unfinished drill pipe in China increased by *** short tons between 2007 and 2009, although the data is limited given the number of questionnaire responses. See e.g., CR/PR at Table VII-3a.

242 Derived from CR/PR at Tables VII-3b & VII-3d.


244 Compare CR/PR at Tables VII-3b & VII-3d (*** tons available capacity in interim 2010) with CR/PR at Table IV-2b, IV-2d (subject drill pipe and collar imports of *** tons in 2009).

245 See e.g., CR at VII-7 n.34.

246 CR at VII-6 n.27; PR at VII-4 n.27 (Commission did not receive responses from 5 of 12 firms identified by responding Chinese producers as the largest producers of drill pipe in China, and 7 of 12 firms identified as the largest producers of drill collars in China).

247 See e.g., CR at VII-9 n.32; PR at VII-6 n.32; see also Petitioners’ Posthearing Br. at Exh. 1 & 2 (analysis by industry expert of available Chinese production capacity).

248 Respondents have argued that the Chinese industry’s ability to export drill pipe to the United States is constrained by several factors. See e.g., Respondents’ Posthearing Br. at 10-12. We have examined these factors and find that they do not represent impediments that are likely to prevent a significant quantity of subject imports in the imminent future.

First, respondents assert that future imports will be hampered by Chinese producers’ inability to produce drill pipe of the quality demanded by U.S. (or Chinese) purchasers. We find that petitioners submitted credible information indicating that a significant number of Chinese producers have been certified by the Chinese state-owned drilling companies either at the national or regional levels, which is an indication of likely acceptability by many U.S. purchasers. See Petitioners’ Posthearing Brief at Exhibits 1 & 2. We find the less detailed information supplied by respondents to be less probative. See Respondents’ Posthearing Brief at Exhibit 24. Moreover, we find that even the Chinese producers that have participated in the U.S. market to date are able to supply a significant volume of subject imports in the imminent future.

Second, respondents claim that there are few Chinese mills that can supply Chinese finished drill pipe producers with green tubes of sufficient quality to make a finished product suitable for the U.S. market. The fact that subject imports of finished goods exceeded *** short tons as recently as 2008 refutes the argument that green (continued...
Chinese producers’ interest in the U.S. market is not surprising given the Chinese industry’s export-oriented posture. Responding Chinese manufacturers/exporters’ total exports of finished drill pipe and collars, as a percent of their total shipments, increased from *** percent in 2007 to *** percent in 2008 and *** percent in 2009.249 The percentage of their total shipments that was exported was somewhat lower in interim 2010 (*** percent) than in interim 2009 (*** percent).250 Chinese producers’ exports to the United States, as a percent of their total shipments, increased from *** percent in 2007 to *** percent in 2009 and were *** percent in interim 2009 and *** percent in interim 2010.251 In short, Chinese production far outpaces home market sales, necessitating substantial exports, and Chinese producers have an established track record of exporting large quantities of the product to global markets.252 Chinese drilling activity is projected to grow only modestly in the imminent future, thus indicating that the Chinese market is not nearly large enough to absorb China’s current or imminent future production capacity.253

The 2010 U.S. countervailing and antidumping duty orders on oil- and gas-well casing and tubing from China provide an incentive for Chinese producers of these products to shift to greater production of unfinished drill pipe.254 Producers of unfinished drill pipe and drill collars typically use some of the

---

248 (...continued)
tube supply in China prevents significant growth in subject imports from the recession-affected lower levels of 2009 and first-half 2010.

Third, respondents posit that inconsistent natural gas supply in China hampers Chinese producers’ ability to operate at significant utilization levels. Whether or not inadequate natural gas supply constrains Chinese production, Chinese producers reported production of nearly *** short tons of finished drill pipe and collars in 2008, an amount that is only about *** percent below total apparent U.S. consumption of finished drill pipe and collars in that year. Compare CR/PR Table VII-3b and Table VII-3d with Table C-2. More broadly, China accounted for the majority of the entire world’s production of seamless tubular products in 2007-2009, indicating that China’s energy supplies enable its companies to carry out significant production operations. CR/PR at Table VII-1.

Fourth, and finally, we note that any technical constraints on Chinese capacity did not impede the expansion of subject import volume, market share, and end-of-period inventories of finished drill pipe and drill collars from 2007 to 2008, or of subject import volume and market share of unfinished drill pipe and drill collars. See e.g., CR/PR at Tables C-1 & C-2.

249 Derived from CR/PR at Tables VII-3b & VII-3d.
250 Derived from CR/PR at Tables VII-3b & VII-3d.
251 Derived from CR/PR at Tables VII-3b & VII-3d.
252 Chinese producers’ inventories provide another source of increased exports of subject product to the United States. Chinese producers’ end-of-period inventories of finished drill pipe and drill collars were *** short tons in 2007, increased to *** short tons in 2008, then decreased to *** short tons in 2009, and were *** short tons in January-June 2009 and *** short tons in January-June 2010. Derived from CR/PR at Table VII-3b and VII-3d. Chinese producers’ reported end-of-period inventories of (***) short tons) in June 2010 were equivalent to *** percent of annualized 2010 apparent U.S. consumption of finished drill pipe and drill collars. CR/PR at Tables VII-3b and C-2.

253 Analyst Spears projects that Chinese rig count and wells drilled will grow by two percent growth in 2010 and one percent in 2011. Petitioners’ Posthearing Brief at Exhibit 1. See also CR/PR at VII-3 to VII-4 (some indications of growing Chinese drilling activity). Respondents claim that available capacity will be directed to growing sales in third-country markets. Respondents’ Posthearing Brief at 12-13. Although Chinese producers reported a significant volume of shipments to non-U.S. markets, they also reported substantial available capacity, and we do not find that this situation will change in the imminent future. See e.g., CR/PR at Table VII-3b.

same equipment and facilities to produce other tubular products, such as casing and tubing. The tonnage of imports of Chinese seamless casing and tubing affected by the antidumping and countervailing duty orders is many times greater than the total tons of drill pipe and drill collars sold in the U.S. market. Accordingly, the U.S. antidumping and countervailing duty orders on casing and tubing provide an incentive for Chinese seamless pipe producers to shift to greater production of unfinished drill pipe, which they could then export to the United States or provide at favorable terms to Chinese drill pipe processors for conversion into finished drill pipe for sale in the U.S. market.

We have analyzed the likely future volume of imports in the context of expected U.S. market demand in the imminent future. As noted previously, demand for drill pipe and drill collars fell abruptly between 2008 and 2009. Apparent U.S. consumption of finished drill pipe and drill collars in first-half 2010 was lower than in first-half 2009 and only marginally above the period-low level of second-half 2009. Thus, data through the end of the period examined show no upturn in the consumption of drill pipe or collars. Apparent U.S. consumption remained near period-low levels in first-half 2010 even though U.S. rig count, a key indicator of demand, bottomed out in second-quarter 2009 and then rose steadily through mid-2010 (and beyond). The lag in drill pipe consumption compared to rig count may be because drilling companies have been able to put idled drill strings back into service, or make use of other drill pipe and collar inventories, rather than purchase new drill pipe and collars. Rig activity is projected to be higher in 2011 than in 2010 which, in our view, will lead to some increase in consumption of new drill pipe and collars. Even with projected growth, however, rig counts are unlikely to return to the 2008 peak levels.

In sum, we conclude that subject imports will increase significantly in absolute terms and relative to domestic consumption and production in the imminent future, based on the record information showing the following: subject imports held a substantial share of the U.S. market throughout the period examined, a share that grew in first-half 2010; importers of subject merchandise have now become suppliers to even the largest U.S. purchasers and thus have demonstrated access to the full range of the API-grade drill pipe and collar market; U.S. importers have increased their quantities of inventories of Chinese product to levels that are particularly significant in the context of current market conditions; and the Chinese industry is very large and growing, is export-oriented, possesses substantial unused capacity, and has an incentive to increase its production and U.S. exports of unfinished drill pipe in response to the 2010 U.S. antidumping and countervailing duty orders on Chinese casing and tubing products. As described in the following section, we find that Chinese drill pipe and collars are likely to significantly undersell domestically made product in the imminent future, which will further increase the attractiveness of the Chinese product to U.S. purchasers.

255 See, e.g., CR at II-12; PR at II-9.

256 An additional incentive for Chinese producers to shift from producing other seamless products to making unfinished drill pipe is the European Union’s action in October 2009 imposing definitive antidumping duties ranging from 17 to 39 percent on seamless pipe (including unfinished drill pipe) from China. See, e.g., CR at VII-17; PR at VII-10.

257 CR/PR at Table C-2.

258 CR/PR at Figures II-3 and II-4.

259 As discussed earlier, drill pipe generally has a useful life of two to three years and can often be refurbished and reused.

260 Several forecasts of 2011 rig count range from 1750 to 1800, as compared to rig counts of approximately 1200 to 1700 in 2010; analysts expect relatively high oil prices but continued weakness in natural gas prices. Petitioners’ Posthearing Brief at A-16, Exhibits 1 & 14. CR at II-20 n.32; PR at II-13 n.32; CR/PR at Figures II-3 & II-4. How much of the new activity can be accommodated by existing drill pipe and collars is not clear.

261 See, e.g., CR at II-20 n.32; PR at II-13 n.32; CR/PR at Figures II-2 to II-6.
B. Likely Price Effects of the Subject Imports

In assessing the likely price effects of the subject imports, we consider pricing developments during the period examined and likely developments in the imminent future in light of key U.S. market conditions, including the nature of competition between subject imports and domestic product. A large majority of domestic purchasers reported drill pipe and drill collars produced in China and in the United States to be “always interchangeable.” Purchasers most often listed quality as the most important buying factor, price as the second most important factor, and availability as the third most important factor. Drill pipe and collars are generally sold on a spot sales basis. The above-cited factors all make for an environment in which price-competitive subject imports have the ability to take sales from domestic producers and/or place downward pressure on domestic prices.

The Commission collected quarterly pricing data for six representative products covering a sizable share of sales of both domestic production and subject imports. For the period examined as a whole, subject imports were more often priced higher than domestic products. Subject imports undersold the domestic like product in 25 out of 62 quarterly comparisons, by margins ranging from 0.2 percent to 31.1 percent. The prices of imports from China were higher than U.S. producers’ prices in 37 out of 62 quarterly comparisons, by margins ranging from 0.5 to 45.9 percent.

The pattern of over- and under-selling was not uniform throughout the period examined; rather, overselling was particularly concentrated in the early years and underselling began to predominate later in the period. In 2007 and 2008, subject imports oversold domestic product in 26 of 38 (68 percent) of price comparisons. This overselling occurred at a time when demand for drill pipe and collars was strong, domestic producers were operating at relatively high capacity utilization levels, and some purchasers reported turning to imports due to long lead times for obtaining domestic product. In 2009, when the U.S. market contracted sharply, the pricing comparisons were approximately evenly split between over- and under-selling (nine versus eight comparisons). In first-half 2010, when consumption was still very weak, subject imports undersold domestic product in six of eight comparisons. The underselling that occurred at the end of the period is consistent with the views expressed by U.S. purchasers, most of whom reported

---

262 See, e.g., CR/PR at Table II-7.
263 See, e.g., CR/PR at Table II-5.
264 See, e.g., CR/PR at V-2 to V-3.
265 Confirmation of several allegations by the domestic industry of sales lost to suppliers of Chinese product provides some concrete examples of the effects of lower-priced subject imports on U.S. producers. See, e.g., CR/PR at Table V-11; CR at V-26-V-34; PR at V-11 to V-12. As discussed above, we find that the transactions in which *** were, in substance, sales made on the basis of price; as such we consider *** sales of subject imports to *** as confirmed lost sales. CR at V-31; PR at V-12.
266 These products included one unfinished drill pipe product and the following five finished products: two drill pipe products of 5-inch outside diameter, one drill pipe product of 4½-inch outside diameter, one heavy-weight drill pipe product, and one drill collar product. CR at V-7 to V-8; PR at V-5 to V-6.
268 See, e.g., CR/PR at Table V-9.
that subject imports were lower-priced than domestic product.269 We see no basis to conclude that the clear shift from overselling to underselling as the period has progressed will be reversed in the imminent future. Thus, we find that subject imports are likely to undersell domestic prices significantly in the imminent future.

Continued underselling will be particularly significant given that there is evidence that subject imports have already had some negative effects on the price levels of domestic drill pipe and collars. Prices of domestic finished drill pipe and collar products generally increased between 2007 and 2008, and generally declined in 2009 and interim 2010, ending below their levels from the beginning of the period.270 Prices for the subject imports from China for these products followed a similar overall trend and generally declined in 2009 and interim 2010.271

The increase in subject imports at increasingly low prices and substitutable with domestic product toward the end of the period examined indicates that the subject imports played a role in the decline in domestic prices, particularly in interim 2010. Thus, although the sluggish U.S. market was one of the reasons why domestic prices fell at the end of the period examined, we find some evidence of price depression by subject imports. Continued or even intensified underselling by subject imports will put significant downward pressure on domestic prices in the imminent future, causing significant price depression or suppression.272 Underselling by subject imports is also likely to increase the attractiveness of those imports to domestic purchasers relative to domestic production.

In short, we conclude that, in the imminent future, the aggressive price competition demonstrated by subject imports at the end of the period examined will likely continue, and the introduction of increased quantities of subject imports, aggressively priced in an effort to gain market share, will put pressure on domestic producers to lower prices in a market recovering from depressed demand. Accordingly, we find that subject imports are likely to enter at prices that will have significant price-depressing and/or price-suppressing effects.

---

269 Fifteen of 34 responding U.S. purchasers reported that Chinese product was offered at the lowest price, 11 reported that U.S. product was offered at the lowest price, and 8 gave other responses. Of the 15 purchasers that purchased Chinese product, 9 reported that Chinese product was offered at the lowest price and 1 reported that U.S. product was offered at the lowest price. See e.g. CR at V-4. See also, CR/PR at Table II-9 (8 purchasers indicated that subject imports of drill pipe were lower-priced than U.S. drill pipe, 7 indicated that they were comparably-priced, and 3 indicated that they were higher-priced).

270 See, e.g., CR/PR at Tables V-2 to V-4 & V-6 to V-8 (Products, 1-3, 5, 6).

271 See, e.g., CR/PR at Tables V-2 to V-4 & V-6 to V-7. Regarding the one unfinished drill pipe pricing product (Product 4), domestic prices increased overall during the period examined, although there was **. Chinese unfinished drill pipe **. See, e.g., CR/PR at Table V-5.

272 To the extent that increasing demand naturally buoys market prices for drill pipe and collars, we would expect the price effects by subject imports to take the form of significant price suppression – i.e., preventing domestic price increases that would otherwise occur, to a significant degree.

The current and imminent future competitive environment in the U.S. market differs in at least two important respects from that which existed in 2007 and 2008, when rising volumes of subject imports had more limited effects on U.S. prices. First, the type of robust demand conditions that existed previously are unlikely to return in the imminent future. Second, suppliers of subject imports are now positioned to supply a much greater portion of the market for API-grade drill pipe and collars than previously.
C. Likely Impact Of The Subject Imports On The Domestic Industry

In assessing the likely impact of subject imports, we first consider the state of the domestic industry. From 2007 to 2009, domestic producers of finished drill pipe and collars as a whole suffered substantial, frequently double-digit, percentage declines in production, shipments, capacity utilization, net sales, production workers, hours worked, worker productivity, wages paid, operating income, and capital expenditures. In first-half 2010, most of the domestic industry’s performance indicia were not generally improved relative to either first-half or second-half 2009 and remained at near-period lows. With respect to unfinished drill pipe and collars, apparent U.S.

273 A threshold data issue concerns the financial information submitted by ***. The staff report sets out alternative figures for the company that differ primarily as to whether or not certain ***. See e.g., CR/PR at Table VI-1b n. 1; Table VI-1d n.1; Table VI-2a n.3; Table VI-2b n.3; Table VI-5 n.2. These ***. We believe that ***, as it recognizes in SEC filings. CR at VI-33 n.22; PR at VI-12 n.22. We note that *** and therefore relevant to the overall condition of the industry in the imminent future. Moreover, the absence of these *** yields an incomplete picture of the industry's financial condition during the period examined.

The profit-and-loss data we have used for ***, which include the ***, are set out in Table VI-2a, n.3 and Table VI-2b n.3. The profit-and-loss data we have used for the U.S. industry as whole producing finished drill pipe and collars, which data include *** described above, are set out in Revised Table C-2 (financial), i.e., the combination of Tables VI-d and VI-b financial results adjusted for the above-referenced ***. We did not use the adjusted input cost data that are also included in the notes to some of the tables cited in the above paragraph (Tables VI-1b, VI-2a, and VI-5); *** reported the input costs in the manner requested by the Commission.

274 The domestic industry’s production declined by 48.1 percent from 2007 to 2009, from 266,343 short tons in 2007 to 248,454 short tons in 2008 and 138,155 short tons in 2009. CR/PR at Table C-2.

275 The domestic industry’s U.S. shipment quantity declined by 53.8 percent from 2007 to 2009, from 197,609 short tons in 2007 to 148,327 short tons in 2008 and 91,363 short tons in 2009. CR/PR at Table C-2.

276 The domestic industry’s capacity utilization dropped from 77.5 percent in 2007 to 69.2 percent in 2008 and 37.4 percent in 2009. CR/PR at Table C-2.

277 By quantity, the domestic industry’s net sales declined by 43.8 percent from 2007 to 2009, falling from 261,487 short tons in 2007 to 146,871 short tons in 2009. By value, the domestic industry’s net sales declined by 33.4 percent from 2007 to 2009, falling from $1.31 billion in 2007 to $869.5 million in 2009. CR/PR at Table C-2 and Revised Table C-2 (financial).

278 Between 2007 and 2009, the number of production related workers (“PRWs”) declined by 27.1 percent, from 1,650 PRWs in 2007 to 1,204 PRWs in 2009. CR/PR at Table C-2.

279 Between 2007 and 2009, hours worked (1,000) fell by 28.4 percent and were 4,329 in 2007, 4,520 in 2008 and 3,098 in 2009. CR/PR at Table C-2.

280 Worker productivity fell from 61.3 short tons per 1,000 hours in 2007 to 44.4 short tons per 1,000 hours in 2009. CR/PR at Table C-2.

281 Between 2007 and 2009, wages paid by the domestic industry declined by 28.0 percent and were $*** in 2007, $*** in 2008, and $*** in 2009. CR/PR at Table C-2.

282 The domestic industry’s operating income declined from $*** in 2007 to *** in 2008 and then further declined to an operating loss of *** in 2009. Its operating income as a ratio of net sales declined from *** percent in 2007 to *** percent in 2008, and then to an operating loss ratio of *** percent in 2009. Revised Table C-2 (financial).

283 The domestic industry’s capital expenditures decreased from *** in 2007 to *** in 2009. CR/PR at Table C-2.

284 CR/PR at Table C-2 and Revised Table C-2 (financial). The domestic industry’s profitability fell sharply in the first half of 2009, when it experienced an *** and an operating margin of *** percent. After that, its profitability recovered, and then fell again, although it remained profitable. In the second half of 2009, the domestic industry had
consumption in 2009 was less than one-third of the levels of 2007 and 2008; as a result, domestic producers experienced severe declines in virtually all performance factors.\textsuperscript{285} Accordingly, we find that the industry is in a weakened state and therefore vulnerable to material injury by reason of subject imports.

We have found above that, in the imminent future, subject imports are likely to increase, take market share from domestic producers, and depress or suppress domestic prices significantly. Lost business will negatively affect the industry’s production, shipments, employment, and inventories. Suppressed or depressed prices will negatively affect the industry’s revenues, profits, and ability to make capital improvements.\textsuperscript{286}

We acknowledge two factors in particular that would tend to suggest a more limited effect of subject imports in the imminent future but conclude that these factors are not so significant as to make material injury unlikely. First, while improving U.S. market conditions will mitigate the effects of subject imports to some degree, we do not find that the rebound from depressed end-of-period conditions, which persisted through at least mid-2010, will be sharp in the imminent future. This market improvement will not be sufficient to avert damage to the domestic industry from the reduced sales volumes and lower prices that are likely to be caused by subject imports.

Second, the market for premium pipe represents an important limitation on the reach of subject imports but is not so paramount as to prevent subject imports from having a significant negative impact on domestic suppliers. During the period examined, premium products grew as a share of finished goods consumption from less than *** percent in 2007 to more than *** percent in 2009, before falling back below *** percent in the first half of 2010.\textsuperscript{287} Premium drill pipe and collars remain an important and growing part of the U.S. market that has been served nearly exclusively by domestic suppliers during the period examined, and we would not expect that situation to change in the imminent future.\textsuperscript{288}

Nevertheless, the vast majority of the U.S. market consists of API-grade product that is produced and sold by domestic producers and producers in China. These non-premium drill pipe and collars are a substantial enough part of the U.S. market such that significant negative effects caused by subject imports in that portion of the market will be significant in the context of the U.S. market as a whole.

\textsuperscript{284} (...continued) an operating income of *** and an operating margin of *** percent; however, in the first half of 2010, it had an operating income of $*** and an operating margin of *** percent. Revised Table C-2 (financial)

Domestic industry order books were extremely weak in first-half 2009 and second-half 2009. Although order books improved in the first three quarters of 2010, the data for two of those quarters (ending June 30 and September 30, respectively) were likely affected by the Commerce’s preliminary determinations in mid-June and mid-August; as described above, the Commerce determinations also likely explain the decline in future orders for subject imports. As such, we place limited weight on order book information for June 30 and September 30, 2010. Data for the one remaining quarter, ending March 31, shows a level that is higher than any in 2009 but lower than any in 2007 and 2008. CR/PR at Table III-5.

\textsuperscript{285} CR/PR at Table C-1. Apparent U.S. consumption of unfinished products remained very low in interim 2010. Most indicators of domestic producers’ performance, including market share, were higher in interim 2010 than in interim 2009, although on an annualized basis the figures were generally well below those of 2007 or 2008. Producers’ operating profit ratio was positive in interim 2010, while operating profits themselves were only a fraction of those in 2007 or 2008.

\textsuperscript{286} Notably, *** it indicated that it anticipated negative effects caused by subject imports on its growth, investment, ability to raise capital, existing development and production efforts, and the scale of capital investments. The company stated that “[i]mports from China are growing and pricing is below market.” CR, PR at Appendix I.

\textsuperscript{287} CR/PR at Tables C-2, D-1, and D-2.

\textsuperscript{288} There were limited volumes of subject imports of premium drill pipe during the period examined, although imports from China maintained a market presence during 2007-2009. See e.g., CR/PR at Table D-1.
We have also considered whether other factors, including demand changes and nonsubject imports, will likely have an imminent adverse impact on the domestic industry, but conclude that the impact of these other factors will be limited. We have recognized the impact of the decline in demand on the domestic industry’s performance in 2009 and first-half 2010. We expect U.S. demand to be on an improving track in the imminent future although it will remain below peak demand conditions experienced in 2007 and much of 2008. Thus, while continued depressed demand will be detrimental to the industry, changes in demand going forward will likely be to the benefit of the domestic industry. Thus demand changes are not a credible alternative cause of future injury.

Nonsubject imports were a factor in the U.S. market during the period examined, but their presence was overshadowed by subject imports. Throughout the period examined, the volume of nonsubject imports of finished drill pipe and drill collar was lower (and after 2007, considerably lower) than the volume of subject imports, and nonsubject imports largely entered the United States through domestic producers themselves in response to changing market conditions. Nonsubject import prices tended to be higher than subject import prices. Accordingly, nonsubject imports are not likely to take significant market share or sales from the domestic industry, or depress or suppress domestic prices, in the imminent future.

Given that the industry is already in a weakened state, we conclude that, unless antidumping duty and countervailing duty orders are issued, significant volumes of dumped and subsidized imports will gain additional U.S. market share in the imminent future and material injury by reason of subject imports will occur. We therefore find that there is a likely causal relationship between the subject imports and an imminent adverse impact on the domestic industry. Accordingly, we determine that the domestic industry is threatened with material injury by reason of subject imports from China.

VII. NO PRESENT MATERIAL INJURY BY REASON OF SUBJECT IMPORTS FROM CHINA

In the final phase of antidumping duty and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured by reason of the imports under investigation. In making this determination, the Commission must consider the volume of imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations. The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.” In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States. No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and

---

289 See, e.g., CR/PR at Table C-2 & IV-2b. Nonsubject imports of unfinished drill pipe were substantial, and competitively priced, but did not prevent subject imports from gaining market share from 2007 to 2009, and would not impede additional imports of unfinished drill pipe in the future.

290 See, e.g., CR/PR at Appendix H.

291 We do not find that we would have found material injury but for the suspension of liquidation on subject imports. See 19 U.S.C. §§ 1671d(b)(4)(B), 1673d(b)(4)(B).

292 19 U.S.C. §§ 1671d(b) and 1673d(b).

293 19 U.S.C. 5 1677(7)(B)(i). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each [such] factor . . . [and explain in full its relevance to the determination.]” 19 U.S.C. 4 1677(7)(B). See also Angus Chemical Co. v. United States, 140 F.3d 1478 (Fed. Cir. 1998).


conditions of competition that are distinctive to the affected industry.”

The data relevant to our determination of material injury has been discussed above in the section on threat of material injury. In this section we summarize the basis of our determination that the domestic industry producing drill pipe and drill collars is not presently materially injured by reason of subject imports from China.

With respect to volume, section 1677(7)(C)(i) of the Act provides that the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.” Based on the data discussed above, we find that the volume of subject imports, and the increase in that volume relative to domestic consumption and production, are significant.

With respect to prices, section 771(7)(C)(ii) of the Act provides that the Commission shall consider whether:

(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.

We have discussed pricing information in detail in our threat of material injury determination. As described above, subject imports generally oversold domestic product in 2007 and 2008, showed mixed results in 2009, and generally undersold in first-half 2010. On balance, we do not find significant underselling over the period examined. We explained above how subject imports had some price depressing effects at the end of the period examined, but this was particularly pronounced only in interim 2010. We acknowledge a substantial increase in the COGS/sales ratio from 2008 to 2009, but do not find significant price suppression with respect to the finished products given the simultaneous decrease in demand.

In examining the impact of the subject imports on the domestic industry, we consider all relevant economic factors that bear on the state of the industry in the United States. These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. No single factor is dispositive and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”

As set forth above, over the period examined the domestic industry suffered significant declines in a number of basic indicators, including production, shipments, sales, and employment. The industry’s

298 CR/PR at Table C-2.
299 Commissioner Pinkert notes that, under normal business conditions, U.S. producers of the finished products should have been able due to inelastic U.S. demand and elastic U.S. supply to pass through to their purchasers the vast majority of the *** per ton 2008-2009 increase in COGS. The *** percent decrease in apparent consumption at that time, however, is sufficient to explain why the impact on net sales unit values of the increase in costs was limited to *** per ton. CR/PR at Table C-2.
300 19 U.S.C. § 1677(7)(C)(iii). See also SAA at 851 and 885 (“In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.” SAA at 885.).
operating profits were solid in 2007 and 2008, dropped sharply in 2009 (as adjusted) to an overall loss, then improved in first-half 2010 to a level below the levels of 2007 and 2008. Subject imports played a role in these declines but we cannot find their role to be significant given the substantial market turmoil that occurred in 2009 and first-half 2010. Accordingly, we do not find that subject imports had a significant negative impact on the domestic industry.

CONCLUSION

For the foregoing reasons, we determine that the domestic industry producing drill pipe and drill collars is threatened with material injury by reason of subject imports from China that are sold at LTFV and subsidized by the Government of China.

302 A key reason for the industry’s weaker financial performance starting in 2009 is that are not linked to the effects of subject imports. See e.g., CR/PR at Tables VI-1b n.1 & VI-1d n.1.
DISSENTING VIEWS OF CHAIRMAN DEANNA TANNER OKUN, COMMISSIONER DANIEL R. PEARSON, AND COMMISSIONER SHARA L. ARANOFF

Based on the record in the final phase of these investigations, we find that an industry in the United States is neither materially injured nor threatened with material injury by reason of imports of drill pipe and drill collars from China that Commerce has found are sold at LTFV and subsidized by the Government of China.

We join the Commission’s Views with respect to background, domestic like product, domestic industry, legal standards, and conditions of competition. We write separately, however, with respect to our analysis of material injury and threat of material injury by reason of the subject imports. For the reasons discussed below, we find that an industry in the United States producing drill pipe and drill collars is neither materially injured nor threatened with material injury by reason of subject imports from China.

A. Volume of the Subject Imports

1. Analysis of Material Injury by Reason of Subject Imports

In evaluating the volume of subject imports, section 771(7)(C)(I) of the Tariff Act provides that the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.”

The volume of subject imports of drill pipe and drill collars (unfinished and finished combined) increased between 2007 and 2008, rising from *** short tons to *** short tons, before falling steeply in 2009 to just *** short tons, a level only slightly more than *** their level at the beginning of the period. These imports were lower still in interim 2010 compared with interim 2009. Nonsubject imports of drill pipe and drill collars (unfinished and finished combined) declined throughout the period examined, including between 2007 and 2008. Relative to subject imports, however, nonsubject imports of these products were consistently significantly higher in volume.

As a share of apparent U.S. consumption, shipments of subject imports of finished drill pipe and drill collars gained *** percentage points from 2007 to 2008, but lost *** points of market share in 2009.
for an overall increase over the three-year period of only *** percentage points. Such imports held a
***-percent share of the market in interim 2010, compared with their ***-percent share of the market in
interim 2009. In contrast, shipments of subject imports of unfinished drill pipe and drill collars gained
*** percentage points of market share from 2007 to 2008, and then *** their market share in 2009, for an
overall increase over the three-year period of *** percentage points. These imports’ market share was
*** percent in interim 2010, compared with *** percent in interim 2009.

Viewed on a consolidated basis (unfinished and finished drill pipe and drill collars), we find the
volume of subject imports to be significant in absolute terms and that by 2009, subject imports held a
significant share (***) percent for unfinished products and *** percent for finished products) of apparent
U.S. consumption. Nevertheless, we also find it significant that subject imports of finished products
(which were the bulk of the subject imports during the period examined) closely followed demand
conditions in the U.S. market. In particular, during 2007 and most of 2008, a period characterized by
robust demand and reported supply tightness in the U.S. market, subject imports of finished product
increased, albeit moderately, from *** short tons to *** short tons, while increasing their market share by
just over *** percentage points. In 2009, after demand had declined dramatically, subject imports of
finished product fell sharply to *** short tons, and their share of the market declined as well, to ***
percent, a level that was only slightly higher than that at the start of the period. In fact, U.S. producers of
finished drill pipe and drill collars actually increased their share of the U.S. market over the three-year
period, as their market share increased from *** percent in 2007 to *** percent in 2009. Moreover, we
note that, although the share of subject imports of the unfinished products increased from 2008 to 2009,
the share of nonsubject imports of unfinished products in the U.S. market increased even more

---

5 CR/PR at Table C-2. Subject imports’ market share for finished drill pipe and drill collars was *** percent in

6 CR/PR at Table C-1. Subject imports’ market share of unfinished drill pipe and drill collars was *** percent in

7 With regard to subject imports, imports of finished products were *** percent of total subject imports in 2007,
Derived from CR/PR at Tables C-2 and C-3.

8 For finished products, from 2007 to 2008, demand, as measured by apparent U.S. consumption, decreased by
*** percent from *** short tons in 2007 to *** short tons in 2008. CR/PR at Table C-2. Domestic producers’
capacity utilization for finished products was *** percent in 2007 and *** percent in 2008. CR/PR at Table C-2.

Supply tightness is evidenced by record data on lead times. For finished drill pipe, average lead times for
merchandise produced to order in 2007 were 225 days (approximately 7 months) from U.S. producers, with some
shipments from U.S. producers stretched out to as long as *** (approximately *** months). CR/PR at Table II-1. In
contrast, lead times in 2007 on purchases of finished drill pipe from U.S. importers averaged only 130 days (just
over 4 months). The spread in lead times between U.S. producers and importers narrowed considerably after 2007,
but we find that the spread in 2007 likely created an incentive for finished drill pipe customers to purchase from U.S.
importers and contributed to the modest increase in subject imports of finished drill pipe in calendar year 2008.
Moreover, data on lost sales indicate that, early in the period examined, several purchasers switched their purchases
from domestically-produced drill pipe to subject drill pipe at least in part because of “a lack of availability from U.S.
producers,” “U.S. producers could not meet demand,” “{we} could not get product from anyone else”, and “lead
times from U.S. producers were six to nine months, whereas the imported product from China was readily
available.” CR at V-26-34, PR at V-II-12.
dramatically between those years.\(^9\) Thus, to the extent that U.S. producers of the unfinished products lost market share in 2009, much of that loss was to nonsubject imports rather than to subject imports.

Accordingly, based on the above analysis, while we find that the volume of subject imports is significant, we do not find, as discussed below, an affirmative determination of material injury by reason of subject imports is warranted.

2. **Analysis of Threat of Material Injury by Reason of Subject Imports**

For purposes of threat, we consider whether, among other relevant economic factors, (1) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country, and (2) whether there will be a significant rate of increase of the volume or market penetration of imports of the subject merchandise, indicating the likelihood of substantially increased imports.\(^{10}\) The Commission received questionnaire responses from 10 Chinese producers/exporters of which 4 reported production of unfinished drill pipe, 10 reported production of finished drill pipe, 2 reported production of unfinished drill collars, and 6 reported production of finished drill collars.\(^{11}\) According to these firms, these responses account for *** percent of total production of unfinished drill pipe, *** percent of finished drill pipe production, *** percent of unfinished drill collar production, and *** percent of finished drill collar production, in China.\(^{12}\) Moreover, data on exports of finished drill pipe to the United States contained in these responses were equivalent to approximately 70.7 percent of reported U.S. imports from China during this same period.\(^{13}\) Given that reported U.S. imports from China are estimated to account for over 90 percent of U.S. imports of drill pipe and drill collars from China for each period for which data were collected, we find that, at least with regard to finished drill pipe (which constituted the vast bulk of exports from China of subject product to the United States during the period examined) we have fairly comprehensive coverage of the foreign industry producing the subject products.\(^{14}\)

Based on these data, for both finished and unfinished products, Chinese capacity increased overall during the period examined, with capacity utilization dropping to low levels by the end of the period, so that reported excess capacity is extensive.\(^{15}\) For finished products, reported excess capacity in

\(^9\) The share of subject imports of unfinished products in the U.S. market rose from *** percent in 2008 to *** percent in 2009, or by *** percentage points. The share of nonsubject imports of unfinished products in the U.S. market rose from *** percent in 2008 to *** percent in 2009, or by *** percentage points. CR/PR at Table C-1.

\(^{10}\) 19 U.S.C. § 1677(7)(F)(ii)

\(^{11}\) CR/PR at Table VII-2. Six firms (*** reported production and/or exports of unfinished drill pipe and/or drill collars. Ten firms (Baoshan, DP Master, Henan, Jiangsu, NOV Grant Prideco, Shanxi Fengshi, Shanxi Huanjie, Shengli, and Wuxi) reported production and/or exports of finished products. ***. All subject foreign producers of finished drill collars also reported production of finished drill pipe, but the two responding producers of unfinished drill collars and the four responding producers of unfinished drill pipe were distinct from each other.

\(^{12}\) CR at VII-6, PR at VII-4.

\(^{13}\) CR at VII-9, n.34, PR at VII-7, n.34 as revised by memorandum INV-JJ-010 (Feb. 4, 2011).


\(^{15}\) CR/PR at Tables VII-3b and VII-3d. Reported capacity in China to produce finished products was *** short tons in 2007, *** short tons in 2008, *** short tons in 2009, *** short tons in January-June 2009, and *** short tons in January-June 2010. Capacity utilization of facilities producing finished products was *** percent in 2007, ***
2009, at *** short tons, slightly exceeded apparent U.S. consumption in that year. On the other hand, there is no evidence on the record that Chinese drill pipe producers intend to increase existing capacity. On balance, however, we find that Chinese drill pipe and drill collar producers have the ability to increase shipments to the United States.

The issue before us, however, is not simply the amount of excess capacity that currently exists in China but rather whether, given the conditions of competition in the U.S. market, the Chinese industry is likely to use that excess capacity to substantially increase shipments to the U.S. market. For the following reasons, we conclude that such an outcome is unlikely.

First, responding firms did not report a surge of exports to the U.S. market during the period examined. Between 2007 and 2008, exports to the United States of finished products increased only modestly, and declined substantially in 2009; this trend mirrors that exhibited by U.S. imports of such products. Similarly, U.S. imports of unfinished products, which were considerably lower in volume than imports of finished products, did not surge between 2007 and 2009. To the extent that any increase occurred, it did so against the backdrop of an overheated demand environment, which is not likely to recur in the imminent future. As noted above, this demand environment was characterized by extended lead times of U.S. producers in 2008 compared to importers of the subject products, which we find accounted for any increase in imports that occurred. In contrast, as discussed below, the current state of demand, while improved from its 2009 trough, is nowhere near as strong as it was in 2007 and early 2008. Because subject imports declined in volume in 2009 (and, in the case of finished products, in market share as well) when demand was weak, there is no reason to expect a surge in subject import volume and market share in the imminent future, inasmuch as demand and domestic producers’ lead times have not yet returned to the levels they reached during the period when those trends were last observed. Consequently, given the trends observed during the period examined, we do not find a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports.

Second, although the Chinese industry can be characterized as export-oriented, the Chinese industry is not very reliant on the U.S. market compared to other markets, and did not increase significantly the share of its exports going to the U.S. market during the period examined. With regard to finished products, which made up the substantial majority of imports into the U.S. market during the period examined, the percentage of responding Chinese producers’ shipments exported to the United States increased by only *** percentage points between 2007 and 2009, and was less than the share of

---

15 (...)continued)


16 CR/PR at Table C-2. Apparent U.S. consumption of finished products in 2009 was *** short tons.

17 CR/PR at Tables VII-3a through Tables VII-3d.

18 CR/PR at Table C-2; CR/PR at Tables VII-3b and VII-3d. Reported exports of finished products increased from 23,939 short tons in 2007 to 25,459 short tons in 2008, before declining to 17,121 short tons in 2009. Similarly, subject imports of finished products increased slightly from *** short tons in 2007 to *** short tons in 2008, before declining sharply to *** short tons in 2009.

19 CR/PR at Table C-1. Subject imports of unfinished products increased from *** short tons in 2007 to *** short tons in 2008, before falling to *** short tons in 2009.

20 As explained below, we find no evidence that importers used underselling to increase the volume of sales in the U.S. market, a fact that further supports our finding as to likely volume.

21 Subject import volumes did not decline in 2009 as a result of the pendency of the present investigations, considering that the petition was filed effective December 31, 2009. CR at I-1, PR at I-1.
shipments going to non-U.S. markets throughout the period examined.\textsuperscript{22} Notably, between 2007 and 2008, a period during which demand in the U.S. market was generally strong, the share of Chinese exports going to the U.S. market actually declined, in contrast to the share going to “all other markets,” which increased sharply from *** percent to *** percent in 2008, and again even more markedly to *** percent in 2009.\textsuperscript{21} Thus, we do not consider that the existing unused production capacity in China, or the export orientation of Chinese producers, indicates a likelihood of substantially increased imports of the subject merchandise into the United States, given the demonstrated ability of other export markets to absorb any additional exports from China.

Other factors that the statute compels us to examine do not alter our conclusion. With regard to inventories of the subject merchandise, there was no significant increase in inventories of subject product held by U.S. importers or purchasers over the period examined. In fact, while inventories of finished products from U.S. sources predictably increased from 2007 to 2009 as demand declined, inventories of subject imports of finished products dropped substantially over that same period.\textsuperscript{24} Thus, in this market there is no overhang of inventories from subject sources waiting to be sold into the U.S. market in the imminent future.

With regard to the potential for product shifting, in the preliminary phase of these investigations we acknowledged that such a potential existed, inasmuch as certain production facilities in China that make drill pipe also make oil country tubular (“OCTG”) casing and tubing, and can make unfinished drill pipe on the same production lines as seamless OCTG. That potential still exists currently; however, the record in the final phase of these investigations indicates that such a potential may be somewhat limited. Given the recently-imposed antidumping and countervailing duty orders on OCTG and seamless pipe,\textsuperscript{25} there is a potential for product-shifting regarding increased production of unfinished products. The record, however, does not indicate any significant surge into the U.S. market of such products when the OCTG orders went into effect in the U.S. market in early 2010.\textsuperscript{26} Moreover, as noted above in the majority’s discussion of “domestic like product,” the finishing processes for finished drill pipe are extensive, and thus it is unlikely that production could be easily shifted from either OCTG or seamless pipe to production of finished drill pipe.\textsuperscript{27} In any event, it is unlikely that producers of subject

\textsuperscript{22} CR/PR at Tables VII-3b and VII-3d. The share of exports of finished products to the United States in total shipments by responding producers was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010. The corresponding share of exports to non-U.S. markets in total shipments was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010.

\textsuperscript{23} CR/PR at Tables VII-3b and VII-3d. The share of total shipments of finished products exported to “all other markets” was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010. These markets include East Asia and the Middle East. Hearing transcript, p. 200 (Leibowitz) and p. 300 (Murphy).

\textsuperscript{24} CR/PR at Table II-4. Inventories of finished products from U.S. sources held by purchasers increased from 5,544,133 feet in 2007 to 6,956,373 feet in 2008, and increased again to 7,063,989 feet in 2009. Inventories of finished products from China held by purchasers declined from 1,527,256 feet in 2007 to 1,186,943 feet in 2008, and declined again to 690,935 feet in 2009.

\textsuperscript{25} CR at II-12 n.13, PR at II-9 n. 13.

\textsuperscript{26} CR/PR at Table C-1. Subject imports of unfinished products were *** short tons in January-June 2010, compared with *** short tons in January-June 2009. Commerce published its countervailing duty order on OCTG from China in January 2010 (75 Fed. Reg. 3203).

\textsuperscript{27} Hearing transcript, p. 209 (Murphy). The two largest producers of finished drill pipe in China, *** and *** (continued...)
merchandise in China would shift to the production of subject merchandise given the lack of motivation to do so in the imminent future.

Finally, there are some barriers to Chinese exports of drill pipe and drill collars in third-country markets, but the record does not suggest that these barriers are so important as to cause a re-direction of Chinese exports to the U.S. market. As we noted in the preliminary phase, in April 2009 the European Union (EU) concluded an antidumping investigation on seamless pipe from China. The resulting order, however, is limited to unfinished products and in any event, the EU was not an important export market for the Chinese industry at any point during the period examined.28 Other third-country actions against Chinese exports of the subject merchandise either appear to be limited to OCTG other than drill pipe (an investigation by Argentina) or do not appear to have been finalized (an investigation by Russia).29 30

Accordingly, based on the above analysis, we cannot conclude that there has been a significant rate of increase in the volume or market penetration of subject imports nor any existing unused capacity or imminent substantial increase in production capacity indicating the likelihood of substantially increased subject imports.

B. Price Effects of the Subject Imports

1. Analysis of Material Injury by Reason of Subject Imports

In our analysis of the price effects of subject imports, we consider, (1) whether there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States and (2) whether the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred.31 In evaluating the price effects of subject imports, we consider the interchangeability of the domestic like product and subject merchandise as well as the importance of price in purchasing decisions. As indicated above in relation to the conditions of competition, the degree of interchangeability between the domestic like product and subject imports is generally moderate to high, with the important exception of premium product, for which substitutability is low.32 Premium drill pipe accounts for a growing share

---

27 (...continued)
both reported that they ***. Similarly, ***, a producer of unfinished drill pipe and finished drill pipe and drill collar reported that ***. CR/PR at Table VII-2.

28 CR/PR at Tables VII-3a through VII-3d; CR at VII-17, n.38, PR at VII-10, n.38. The share of exports to the EU in total shipments of finished products by responding Chinese producers was *** percent in 2007, *** percent in 2008, *** percent in 2009, *** percent in January-June 2009, and *** percent in January-June 2010.

29 CR at VII-17, PR at VII-10.

30 We also do not consider (**), to indicate that increased volumes of subject imports are imminent. As an initial matter, Petitioners drew the Commission’s attention to this particular sale in order to rebut Respondents’ contention that the domestic industry and importers of subject merchandise sold to distinct groups of customers. Petitioners’ posthearing brief at I-2. As Respondents’ contention does not underpin our analysis in any way, we do not consider Petitioners’ rebuttal germane to that analysis. In any event, the record indicates that (**). Respondents’ posthearing brief at exhibit 23 (**), CR at V-31, PR at V-12. Given the specific circumstances surrounding this sale, we do not find that it predicts any imminent surge in subject imports.


32 CR at II-27, PR at II-19.
of domestic production, accounting for *** percent during 2009. Quality is the most important factor in purchasing decisions, followed by availability and price.

A. Data Used in Underselling Analysis

An important consideration in our analysis is the extent to which subject imports undersold the domestic like product in the U.S. market during the period examined. Based on input from the parties, the Commission identified a number of representative drill pipe and drill collar products on which it sought pricing data in order to evaluate the degree of underselling. In keeping with its ordinary practice, the Commission compared the prices at which the products were sold by domestic producers and by importers in the first arm’s length transaction occurring in the United States.

In the preliminary phase of these investigations, the quarterly price comparisons showed mostly overselling. Petitioners argued that the Commission should disregard the results of the quarterly price comparisons and instead evaluate underselling by comparing the average unit values (AUVs) of the domestic like product and subject imports. Petitioners argue that the AUV data are consistent with certain reports from purchasers as to which product was lower in price. They also contend that the quarterly price comparisons understate the true extent of underselling, because some of the data were collected at different levels of trade and because subject imports were more frequently sold to distributors than was the domestic like product. We determine to rely on the quarterly price comparisons and not AUV data in evaluating underselling in these investigations.

The merits of using AUV data in evaluating underselling has been a topic thoroughly explored by the Commission and its reviewing courts. Use of AUV data becomes problematic in investigations in which the subject merchandise and domestic product are sold in a variety of forms at varying prices. As held by our reviewing courts, differences in AUVs may reflect differences in product mix rather than differences in price. Not only can differences in product mix undermine comparisons between subject imports and the domestic product, but also comparisons of the data from year to year, as product mix may

33 Figure derived from CR/PR at Tables D-1 and D-2. As a share of apparent U.S. drill pipe consumption by weight, premium pipe accounted for *** percent in 2007, *** percent in 2008, and *** percent in 2009. CR at II-24, PR at II-17.

34 CR/PR at Tables II-5 and II-6.

35 Petitioners’ prehearing brief at 40.

36 Petitioner’s prehearing brief at 40–42 and posthearing brief at A-6. As noted, Petitioners argue that the Commission should not rely on the quarterly pricing comparisons because only AUV data are consistent with reports by a majority of purchasers responding to the Commission’s questionnaires that the subject merchandise represented the lowest price for drill pipe and drill collar since January 1, 2007. Petitioners’ posthearing brief at A-6. For the reasons provided in the text above, we decline to rely on AUVs in our underselling analysis. In any regard, we note that the purchaser reports referenced by Petitioners are not specific to any particular quarterly annual period or to the sales of comparable products. That lack of specificity undermines the usefulness of the reports in evaluating the timing, frequency, or degree of underselling. In any event, when responding to a different query, a majority of purchasers indicated the domestic product was generally lower or comparable in price with the subject merchandise. CR/PR at Table II-9. Despite Petitioners’ arguments to the contrary, we regard price comparisons for defined and representative pricing products to be the best measure of underselling in this market.

37 See Allegheny Ludlum Corp. v. United States, 287 F.3d 1365, 1373-74 (Fed. Cir. 2002); Nucor Corp. v. United States, 594 F. Supp. 2d 1320, (Ct. Int’l Trade 2008); and Oil Country Tubular goods from Austria, Brazil, China, France, Germany, India, Indonesia, Romania, South Africa, Spain, Turkey, Ukraine, and Venezuela, Inv. Nos. 701-TA-428 (Preliminary) and 731-TA-992-994 and 996-1005 (Preliminary), USITC Pub. 3511 (May 2002) at 23 n. 137.
shift over time. In the current investigations, the subject product is sold in a multitude of forms, falling into various categories including unfinished drill pipe, finished drill pipe, heavy-weight drill pipe, premium drill pipe, and drill collars.\textsuperscript{38} Within each category, products are further differentiated by grades, performance characteristics, and optional finishes that can account for substantial differences in value.\textsuperscript{39} Given the great variety of drill pipe and drill collar products, and their variance in price, we determine that AUVs do not constitute a reliable proxy for actual prices in these investigations. Accordingly, we decline Petitioners’ invitation to rely on AUVs in evaluating the extent of underselling in these investigations.

We also consider whether the quarterly price comparisons derived in these investigations may understate the true extent of underselling in these markets, for the reasons given by Petitioners. We first evaluate the assertion that the comparisons are distorted because data were gathered at differing levels of trade. As noted, in evaluating underselling, it is the Commission’s longstanding practice to gather pricing data at the level of the first arm’s length transaction occurring in the United States. The approach is calculated to derive information relevant to the purchasing decisions of the purchasers in the U.S. market, unaffected by corporate relationships or other extraneous factors that could affect price.

Petitioners do not appear to dispute the soundness of the Commission’s general approach, but focus their claim on data relating to the importer and purchaser Command. A witness testifying at the Commission’s hearing on behalf of Petitioners noted that Command purchases the domestic like product from domestic producers and acquires (via importation) subject merchandise from foreign producers in China. The witness noted that, for purposes of gathering data for the quarterly pricing comparisons, the price data reported for the domestic like product were those sales by the domestic producers to Command. In contrast, the price data for the subject merchandise were those for sales by Command to other distributors or end users.\textsuperscript{40} According to the witness, this arrangement reveals that these price data were collected at different levels of trade, and noted further that Command will likely mark up the price before sale.\textsuperscript{41}

We are not persuaded that Petitioners’ observation with respect to Command demonstrates that the quarterly pricing comparisons underestimate the extent of underselling in the U.S. market. The purpose of the price comparisons is to examine the prices at which the domestic like product and subject merchandise are sold to arm’s length purchasers in the United States market. Sales of the domestic like product to Command and sales by Command of subject merchandise represent bona fide, arm’s-length sales to purchasers in the United States market.

Even if these sales were somehow unrepresentative, as the witness of Petitioners asserts, the effect on the quarterly pricing comparisons is very small. Command purchased only a small share of the drill pipe and drill collar shipped by domestic producers during the period.\textsuperscript{42} In fact, purchases of domestic product by Command occurred in only *** of the 62 quarterly comparisons made during the period examined.\textsuperscript{43} We are not persuaded that the Command data are unrepresentative of a share of arm’s

\textsuperscript{38} CR/PR at Tables V-2-V-7 (showing range of prices for representative products).
\textsuperscript{39} See CR/PR at Tables V-2-V-4 (varying price of finished drill pipe products) and CR at V-5, PR at V-4 (value of add-ons).
\textsuperscript{40} Hearing transcript, p. 70-71 (Scott).
\textsuperscript{41} Hearing transcript, p. 70-71 (Scott).
\textsuperscript{42} Compare CR at V-9 n.33, PR at V-7 n.33 (value of Command’s purchases of the domestic like product) with CR/PR at Table IV-4b (value of domestic producers’ total shipments of finished drill pipe)
\textsuperscript{43} *** CR at V-23 and n.35, PR at V-10 and n.35.
length purchase prices in the United States market, but even if they were, they have little impact on the results.

Taking a different tack, Petitioners argue that the Commission should evaluate underselling by comparing the price at which Command acquired subject merchandise as an importer with the price at which domestic producers sold the domestic like product in the United States market. As noted above, however, the Commission examines the prices at which domestic product and subject merchandise are sold to purchasers in the United States, in order to evaluate price competition in the United States market. The price at which an importer such as Command may acquire subject merchandise is one level removed from the inquiry that it is our statutory obligation to perform. 44 We therefore cannot accept the methodology proposed by Petitioners.

Even if we were persuaded that the use of Command’s import acquisition price was appropriate, the price comparison that Petitioners advocate is undermined by an important difference in product features. Drill pipe is sold with a range of so-called “add-ons,” a term referring to features including, but not limited to, an interior plastic coating, hard banding (an exterior wear-resistant material), and “make-or-break” treatment (designed to facilitate drill pipe connections performed in the field). 45 Each of these add-ons raises the price of the product, potentially in excess of $*** per foot in the aggregate. 46 Tables V-2 through V-7 present the price at which Command acquired subject merchandise as an importer as well as the price at which the domestic products were sold in the United States. Most of Command’s imports however, lack add-ons, while the majority of domestic production is sold with add-ons. 47 These important differences undermine the value of the price comparisons advocated by Petitioners.

Petitioners further observe that the share of subject merchandise sold to distributors was higher than the share of the domestic like product sold to distributors. Petitioners contend that because importers reported ***, and because distributors perform services such as holding product in inventory, distributors pay prices for drill pipe and drill collar that are substantially higher than those paid by end users. 48 On that basis, Petitioners argue that a comparison of quarterly prices for the subject merchandise and domestic like product understates the degree of underselling that really occurs in the market.

First, we note that Petitioners’ assumption that distributors pay higher prices than do end users runs directly counter to the concern typically raised when comparing prices in sales to these purchaser groupings. The concern ordinarily expressed is that distributors, because of their ability to make high-

---

44 See Certain Polyester Staple Fiber from China, Inv. No. 731-TA-1104 (Final), USITC Pub. 3922 (June 2007) at 19, n. 119. In a small minority of investigations, it may not be possible to obtain the price at which the subject merchandise is sold to a purchaser in the U.S. market, such as where the importer is itself the end user of the subject merchandise, or where the importer sells the subject merchandise at retail. In these special circumstances, the Commission uses the prices paid by importers for the subject merchandise in price comparisons, but does so with caution. See Ni-Resist Piston Inserts from Argentina, Inv. No. 701-TA-460 (Final), USITC Pub. 4104 (Oct. 2009), at 14.

45 CR at V-5, PR at V-4; CR at I-19 n. 33, PR at I-13 n.33.

46 See CR at V-5, PR at V-4.

47 CR at V-9 n.34 and PR at V-7 n.34 (majority of Command’s imports without add-ons) and CR at V-6, PR at V-4 (*** percent of domestic product sold with internal coating, *** percent sold with hard banding, and *** percent sold with make-or-break treatment).

48 Petitioners’ prehearing brief at 41 and 74.
volume purchases, are able to purchase at prices that are lower than those paid by end users.\textsuperscript{49} Here, Petitioners argue that distributors pay higher prices than do end users.

Although Petitioners are not barred from arguing that the markets at issue here are unique, they fail to supply a persuasive explanation as to why this unusual effect arises. Even if importers \textsuperscript{***}, as Petitioners assert, that asserted fact does not constitute evidence that distributors necessarily pay higher prices for drill pipe and drill collar than do end users. Nor does the fact that distributors may provide inventory services necessarily demonstrate that they pay higher prices. The provision of those services comes at some cost to distributors, meaning that distributors are under pressure to obtain drill pipe and drill collar at the lowest price available. Why distributors would be willing to pay prices higher than those paid by end users is not explained. If end users truly paid lower prices when buying direct from a U.S. manufacturer, distributors would quickly go out of business as they would lose money on every sale to an end user. In the absence of evidence or persuasive argument as to why distributors pay higher prices, we decline to embrace the assumption advanced by Petitioners.

A procedural concern also arises in respect to Petitioners’ argument. When it appears that prices may vary as a function of whether the purchaser is a distributor or end user, the Commission may in its questionnaires direct the parties to report prices separately for sales to distributors and to end users, generating two separate sets of quarterly pricing comparisons. While the Commission may take that step at its own initiative if a need is indicated on the record, the parties have various opportunities during an investigation to request that the Commission collect the data separately, including at any time during the preliminary phase of the investigation or when commenting on the draft questionnaires in the final phase. Despite now arguing that prices to distributors are higher and distort the quarterly comparisons, Petitioners did not request that the data be gathered separately, despite submitting lengthy comments on the draft questionnaires. In other words, it was within Petitioners’ power to seek to fix the problem of which it now complains, yet they failed to act prior to the time the Commission issued its questionnaires.

Nevertheless, after Petitioners raised the argument in their prehearing brief, Commission staff segregated the pricing data to the extent possible, as reported in Appendix G of the final staff report. Tables G-1 through G-6 show, for each of the six pricing products, sales of subject Chinese imports that were mainly to distributors and those mainly to end users. As shown in the tables, in a clear majority of quarterly comparisons, sales of the subject merchandise to distributors were made at lower prices than sales to end users.\textsuperscript{50} The data contradict Petitioners’ assertion that distributors pay higher prices and that the pricing comparisons understate the extent of underselling in this market.

In light of the above, we are not persuaded that the quarterly pricing comparisons understate the extent of underselling, as Petitioners contend. We determine to rely on the quarterly pricing data and reject the invitation to rely on AUV data instead. Having determined which data to use, we now turn to our analysis.

\footnote{In most investigations, the record does not demonstrate that distributors necessarily pay lower prices than do end users. In particular circumstances, however, such as where a select few distributors purchase in very large quantities and multiple end users purchase only in small quantities, the Commission segregates distributor and end user prices when making quarterly price comparisons.}

\footnote{Sales of subject merchandise made mainly to end users were priced higher than sales made mainly to distributors in 5 of 7 comparisons for product 1, 8 of 12 comparisons for product 2, 3 of 6 comparisons for product 3, 7 of 10 comparisons for product 5, and 2 of 2 comparisons for product 6. CR/PR at Tables G-1-G-6.}
B. Price Underselling

The Commission collected quarterly pricing data for six drill pipe and drill collar products.\textsuperscript{51} Usable pricing data were provided by six domestic producers and twelve importers of subject drill pipe and drill collar from China.\textsuperscript{52} For finished drill pipe, the data accounted for *** percent of the value of domestic producers’ U.S. shipments and *** percent of the value of the U.S. importers’ U.S. shipments during the period examined.\textsuperscript{53} For unfinished drill pipe, the data accounted for *** percent of the value of domestic producers’ U.S. shipments and *** percent of value of importers’ U.S. shipments.\textsuperscript{54} For finished drill collar, the data accounted for *** percent of the value of domestic producers’ U.S. shipments and *** percent of the value of importers’ U.S. shipments.\textsuperscript{55} The pricing data provide a representative basis to evaluate the prevalence of underselling by subject imports.\textsuperscript{56}

The subject imports mostly oversold the domestic like product in the quarterly price comparisons. Subject imports oversold the domestic like product in 37 comparisons, by margins averaging 10.5 percent and ranging from 0.5 percent to 45.9 percent.\textsuperscript{57} Subject imports undersold the domestic product in 25 quarterly pricing comparisons, by margins averaging 10.8 percent and ranging from 0.2 to 31.1 percent.\textsuperscript{58} We find that subject imports mostly oversold the domestic like product and conclude that there has not been significant price underselling by the imported merchandise as compared with the price of the domestic like product.

C. Price Depression and Price Suppression

In evaluating whether subject imports depressed prices for the domestic like product, we examine price trends during the period examined. Prices for all six domestic products generally increased from the first quarter of 2007 through early- to mid- 2009, when they declined and then remained lower during interim 2010.\textsuperscript{59} Assessing the reasons for the price declines in 2009, we note a sharp fall in demand in 2009.\textsuperscript{60} Additionally, the cost of scrap (used to make the steel billets and bars) used in drill pipe and drill collar production fell by approximately 80 percent in late 2008, and remained at much lower levels in 2009 than during most of 2008.\textsuperscript{61} The fall in demand likely put downward pressure on prices, while lower raw materials costs enabled producers to lower prices without sacrificing profitability, at least to some extent.

\begin{itemize}
\item \textsuperscript{51} CR at V-8, PR at V-6.
\item \textsuperscript{52} CR at V-8, PR at V-6.
\item \textsuperscript{53} CR at V-8, PR at V-6.
\item \textsuperscript{54} CR at V-8, PR at V-6.
\item \textsuperscript{55} CR at V-8, PR at V-6.
\item \textsuperscript{56} Petitioners’ posthearing brief at A-6. “The pricing products used by the Commission in this case were extremely representative of the drill pipe industry, covering *** percent of domestic industry shipments and *** percent of importer shipments.”
\item \textsuperscript{57} CR/PR at Table V-9. If we exclude from the data set pricing comparisons for quarters in which ***. See CR at V-23 and n.35, PR at V-10 and n.35 (identifying quarters, all in 2008, ***).
\item \textsuperscript{58} CR/PR at Table V-9.
\item \textsuperscript{59} CR/PR at Tables V-2-V-7 and Figures V-2-V-7.
\item \textsuperscript{60} CR/PR at Table C-3.
\item \textsuperscript{61} CR/PR at Figure V-1.
\end{itemize}
In considering whether subject merchandise caused significant price depression in 2009, we observe that subject merchandise oversold the domestic like product in a majority of quarterly price comparisons during that year.\textsuperscript{62} The record also shows that subject imports of finished drill pipe and drill collar lost market share to the domestic product in 2009, although the smaller volume of unfinished subject imports gained market share in that part of the market.\textsuperscript{63} Additionally, we note that subject imports provided little or no price competition for the domestic industry’s growing share of premium drill pipe.

We conclude that the decline in prices in 2009 occurred as a result of the sharp fall in demand, and that the decline was also enabled to at least some extent by the sharp fall in raw materials costs.\textsuperscript{64} The record does not establish that subject imports caused price depression to a significant degree, as they mostly oversold the domestic like product, they lost market share in the more important finished portion of the market, and because they provided little or no competition for the growing share of domestic sales of premium drill pipe.

Nor do we find evidence that subject imports prevented increases in the price of the domestic product that otherwise would have occurred. As noted, prices for the domestic product generally increased from the first quarter of 2007 and through 2008. There is no evidence that subject merchandise prevented the domestic industry from achieving further price increases from 2007 to 2008, as the ratio of the domestic industry’s cost of goods sold to net sales was already low and changed little.\textsuperscript{65} Nor do we find evidence that subject imports prevented price increases that otherwise would have occurred in 2009. Demand for drill pipe and drill collar fell sharply, as apparent U.S. consumption for finished product fell by *** percent from 2008 to 2009, and fell for unfinished product by *** percent.\textsuperscript{66} Given that a sharp fall in demand usually places downward pressure on prices, the record does not support the notion that domestic producers were poised to increase prices in 2009, but were prevented from doing so by subject imports, which, in the case of finished products, actually lost market share. While higher raw materials prices might sometimes help producers justify price increases in a declining demand environment, assuming low demand elasticity, here raw materials costs were sharply lower in 2009 than in 2008. It is also not apparent how subject merchandise could have prevented price increases for premium finished drill pipe, given the lack of a competing product. While the domestic industry experienced a higher COGS/net sales ratio in 2009 than in 2008 with regard to both finished and unfinished products, we find no evidence that subject imports prevented the domestic industry from increasing prices to a significant degree, for the reasons given above.

Having examined the record and the arguments of the parties, we find that subject imports did not have significant price depressing or price suppressing effects during the period examined.
2. Analysis of Threat of Material Injury by Reason of Subject Imports

For purposes of threat, we consider whether “imports of subject imports are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices and are likely to increase demand for further imports.” Because the prices of subject imports did not have significant price depressing or suppressing effects during the period examined, we consider whether changes are likely to occur that would lead us to expect adverse price effects in the imminent future.

We consider the evidence in the context of likely demand in the imminent future, because of its potential to affect prices. As indicated above, demand was strong and growing during 2007 and 2008 before entering a deep trough in 2009 and remaining low during the first half of 2010. Late in the period examined, leading indicators of demand improved, including increases in U.S. real GDP growth, prices for crude oil and natural gas, the number of active rigs drilling for oil and natural gas, and footage drilled. The demand environment has improved substantially since its lowest point in 2009, and by some measures is approaching levels seen in 2007. Evidence of demand recovery is also found in the domestic producers’ drill pipe order books, which show booked volumes in the second and third quarters of 2010 greater than during any of the five previous quarters and within the lower end of the range experienced during 2007 to 2008. Just as falling demand caused prices for drill pipe and drill collar to fall in 2009, we expect increasing demand to support steady or increasing prices in the imminent future.

We also examined whether subject imports are likely to undersell the domestic like product to a significant extent in the imminent future. Although in a majority of comparisons subject merchandise oversold the domestic like product during the period examined, it mostly undersold the like product during interim 2010, in 6 of 8 comparisons. We do not consider the underselling observed during the most recent six month period to constitute evidence that significant underselling is likely in the imminent future. The demand conditions prevailing during interim 2010 (low-level demand following an abrupt decline), are not likely to continue in the imminent future. As noted above, demand is likely to increase, as indicated by a number of different measures. Because subject imports mostly oversold the domestic product when demand was increasing during the 2007 to 2008 time frame, we expect overselling to predominate in the imminent future, consistent with the pattern observed during the period examined.

Consistent with this expectation, prices for the subject merchandise were substantially higher in the second quarter of 2010 than in the first quarter of that year for most of the pricing products. The price of subject merchandise product 1. Over the same time frame, prices for subject merchandise product 3. The price of product 2, which ***. Consistent with these price increases, the subject merchandise undersold the domestic product in four of four price comparisons in the first quarter of 2010, but in only two of four price comparisons in the second quarter.

---

69 CR/PR at Figure II-2 (footage drilled), Figure II-6 (rig count), and Table VII-7 (rig count).
70 CR/PR at Table III-5.
71 CR/PR at Table V-9. In some investigations, increased underselling late in the period examined comes as importers price the product aggressively in order to increase sales volume before the imposition of provisional duties. Here, however, the volume of subject imports during interim 2010 was lower than in interim 2009 both absolutely and in market share. Accordingly, we do not attribute the increase in underselling at the end of the period to the pendency of the investigations.
72 CR/PR at Tables V-2, V-4, and V-6.
73 CR/PR at Table V-3.
of 2010.74 Furthermore, in the two instances of underselling in the second quarter of 2010, the margins were much smaller than in the prior quarter (falling from *** percent to *** percent in the case of product 2 and from *** percent to *** percent in the case of product 3).75 Due to increased demand, higher prices for the subject merchandise, and the falling frequency and margins of underselling during the first half of 2010, we do not expect the subject merchandise to undersell the domestic product to a significant degree in the imminent future. In short, since at no point in the period examined was there evidence of subject producers using underselling to push product into the market, we see no reason for that to happen in the imminent future.

With regard to whether the subject merchandise is entering at prices likely to have significant price depressing or suppressing effects, we expect a continuing recovery in demand in the imminent future, albeit at levels lower than the market experienced during the best portions of 2007 and 2008. As noted above, we do not expect substantially increased volumes of subject merchandise in the imminent future nor do we expect that the subject merchandise will undersell the domestic like product to a significant extent. Given the absence of adverse price effects during the period examined, and in the absence of any changes in the market likely to bring about such effects in the imminent future, we do not expect subject imports to enter at prices that are likely to have a significant depressing or suppressing effect on domestic prices and are likely to increase demand for further imports in the imminent future.

C. Impact of the Subject Imports76

1. Analysis of Material Injury by Reason of Subject Imports

In examining the impact of subject imports, section 771(7)(C)(iii) of the Tariff Act provides that the Commission “shall evaluate all relevant economic factors which have a bearing on the state of the industry.”77 These factors include output, sales, inventories, ability to raise capital, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”78

The business cycle for drill pipe and drill collars is based on oil and gas prices and depends heavily on oil and gas rig counts.79 Because drill pipe follows the booms and busts of the oil and gas industry, its business cycle can be very volatile.80 This volatility was experienced during the period examined as demand peaked and then rapidly declined beginning in late 2008. Overall, demand declined

74 CR/PR at Tables V-2, V-3, V-4, V-6 and V-7.
75 CR/PR at Tables V-3 and V-4.
76 Negligibility under 19 U.S.C. § 1677(24) is not an issue in these investigations. Questionnaire data indicate that during the most recent 12-month period, imports from China accounted for *** percent of total U.S. imports of drill pipe and drill collars by quantity. The volume of subject imports is thus well above the statute’s three percent negligibility level. CR at IV-12, PR at IV-7-8.
77 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851 and 885 (“In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.”).
79 CR/PR at Figure II-7, CR at II-25, PR at II-17, and hearing transcript, p. 202 (Murphy).
80 CR/PR at Figure II-7, CR at II-25, PR at II-17, and hearing transcript, p. 202 (Murphy).
by *** percent for unfinished drill pipe and drill collar, and by *** percent for finished drill pipe and drill collar from 2007 to 2009. At the same time, measures of the domestic industry’s trade and financial performance worsened during the period examined. Production of finished drill pipe and drill collar declined by 48.1 percent from 2007 to 2009 while capacity utilization declined by 40.1 percentage points. The quantity of net sales decreased by 43.8 percent, and U.S. shipments declined by 53.8 percent. The number of PRWs employed by the finished drill pipe and collar industry was reduced by 27.1 percent from 2007 to 2009. In 2007, the domestic industry’s operating income was $449.4 million and was 34.4 percent as a share of total net sales. By 2009, the operating income was $201.8 million and the operating income margin was 23.2 percent. Unlike the producers of unfinished drill pipe and drill collars, the producers of the finished goods have not yet registered improvements over their 2009 results for many trade and financial indicators. However, they reported an operating income of $75.2 million and an operating income as a share of total net sales of 22.2 percent in the first half of 2010.

From 2007 to 2009, unfinished drill pipe and drill collar production declined by *** percent, capacity utilization declined by *** percentage points, net sales decreased by *** percent, and U.S. shipments declined by *** percent. At the same time, the number of production and related workers (“PRWs”) employed by the producers of unfinished drill pipe and collar was reduced by *** percent. In

---

81 CR/PR at Tables C-1-C-4.
82 Domestic production declined from 266,343 short tons in 2007 to 248,454 short tons in 2008, and 138,155 short tons in 2009. Production was 78,347 short tons in interim 2009 and 61,668 short tons in interim 2010. CR/PR at Table C-2.
83 Capacity utilization declined from 77.5 percent in 2007 to 69.2 percent in 2008 and was 37.4 percent in 2009, and 42.4 percent in interim 2009 compared with 33.4 percent in interim 2010. CR/PR at Table C-2.
84 Net sales decreased from 261,487 short tons in 2007 to 235,445 short tons in 2008 and to 146,871 short tons in 2009, and were 71,534 short tons in interim 2009 compared with 67,273 short tons in interim 2010. CR/PR at Table C-2.
85 U.S. shipments decreased from 197,609 short tons in 2007 to 148,327 short tons in 2008 and to 91,363 short tons in 2009, and were 44,699 short tons in interim 2009 compared with 42,622 short tons in interim 2010. CR/PR at Table C-2.
86 Between 2007 and 2009, hours worked by PRWs fell by 28.4 percent, productivity declined by 27.5 percent, and wages paid to PRWs declined by 28.0 percent. CR/PR at Table C-2.
87 CR/PR at Table C-2. Given the nature of drill pipe and drill collar production, it is not surprising that the upstream product would recover before the downstream product.
88 Domestic production declined from *** short tons in 2007 to *** short tons in 2008, and *** short tons in 2009. Domestic production was *** short tons in interim 2009 and *** short tons in interim 2010. CR/PR at Table C-1.
89 Capacity utilization declined from *** percent in 2007 to *** percent in 2008 and was *** percent in 2009. It was *** percent in interim 2009 and *** percent in interim 2010. CR/PR at Table C-1.
90 Net sales decreased from *** short tons in 2007 to *** short tons in 2008 and to *** short tons in 2009 and were *** short tons in interim 2009 and *** short tons in interim 2010. CR/PR at Table C-1.
91 U.S. shipments increased from *** short tons in 2007 to *** short tons in 2008 and were *** short tons in 2009. U.S. shipments were *** short tons in interim 2009 and *** short tons in interim 2010. CR/PR at Table C-1.
92 Between 2007 and 2009, hours worked by PRWs in the unfinished drill pipe and drill collar business fell by *** percent, productivity declined by *** percent, and wages paid to PRWs declined by *** percent. CR/PR at
2007, unfinished producers’ operating income was *** and *** percent as a share of total net sales. By 2009, the operating income was *** and *** percent as a share of total net sales. Each of these indicators was better in January-June 2010 compared with January-June 2009. For example, production was *** percent higher, operating income was *** percent higher, and the operating income margin was *** percentage points higher.94

Notwithstanding these trends, we do not find that the domestic industry’s declining performance during the period was due in any significant degree to the presence of subject imports. Given that (1) subject imports predominantly oversold the domestic like product even in 2009; (2) for the most part, the industry was able to maintain or actually increase its prices in that period; and (3) subject imports decreased in terms of both volume and market share, the record evidence fails to demonstrate that declines in the domestic industry’s performance were by reason of the subject imports. In fact, the performance of the unfinished drill collar industry declined even absent meaningful subject import competition.95

The performance trends of the domestic industry do not correlate to the subject import volumes in any meaningful way. The financial performance of the unfinished drill pipe and collar producers was strongest in 2008, when subject imports reached their peak. The ratio of operating income to total net sales, for the unfinished drill pipe and collar producers, initially improved slightly from *** percent in 2007 to *** percent in 2008 at the same time that the volume of subject imports increased by *** percent. The operating income ratio then declined to *** percent in 2009 as the volume of subject imports fell by *** percent.

The financial performance of the finished drill pipe and collar producers remained very strong in 2008 despite an increase in subject import volume and a decline in domestic consumption.96 The ratio of operating income to total net sales was 34.4 percent in 2007 and declined slightly to 32.1 percent in 2008, as subject imports increased by *** percent. The following year (2009), the ratio of operating income to total net sales was 23.2 percent and the volume of subject imports was *** percent lower.

We acknowledge that because of its dominant size, NOV Grant Prideco’s financial results have a large impact on the combined financial results of the domestic industry.97 However, the statute directs us to focus on the domestic industry “as a whole,” and not on individual firms in the domestic industry.98 We recognize that NOV Grant Prideco’s global operations afford it flexibility in its sourcing and production decisions as evidenced by its ***99 and its ***.100 However, NOV Grant Prideco is not unique in this regard, as several other domestic producers are also related to third country producers101

93 (...continued)

94 CR/PR at Table C-1.
95 CR/PR at Table VI-1c, CR at IV-12, n.16, PR at IV-8, n.16.
96 CR/PR at Table C-2.
97 NOV Grant Prideco is the leading U.S. producer of finished drill pipe and the second largest U.S. producer of finished drill collars. In 2009, NOV Grant Prideco accounted for *** percent of U.S. finished drill pipe production and *** percent of U.S. finished drill collar production. It ***. CR/PR at Table III-1.
99 CR/PR at Tables III-7a-III-7b, and IV-1.
100 CR at IV-7 n.8, PR at IV-6 n.8.
101 CR/PR at Table III-1. *** have related producers in nonsubject countries.
and multiple domestic producers supplemented their own production with *** during the period examined.\textsuperscript{102}

A consideration of the financial performance of the industry that includes *** does not compel a finding that the domestic industry is currently materially injured. The inclusion of *** changes the combined finished drill pipe and drill collar producers’ operating income of $201.7 million to ***. This change, however, results primarily from a one-time adjustment in 2009 designed to account for a *** and was unrelated to subject imports.\textsuperscript{103} In any event, the finished drill pipe and drill collar industry *** in interim 2010 and recorded an operating income of *** and an operating income to total net sales ratio of *** percent.\textsuperscript{104}

The trade performance trends of the domestic industry also do not correlate to the subject import volumes in any meaningful way. From 2007 to 2008, U.S. producers of unfinished drill pipe and drill collars were able to increase their production capacity by *** percent, employment by *** percent, and U.S. shipments by *** percent despite a *** percent increase in subject import volume. The following year, as subject import volumes declined sharply, domestic production, employment, and U.S. shipments all declined as well. Overall, subject import volumes of unfinished drill pipe and drill collar declined by *** percent, U.S. production declined by *** percent, employment declined by *** percent, and U.S. shipments declined by *** percent as apparent U.S. consumption declined by *** percent.\textsuperscript{105} A lack of correlation with subject import volumes is also demonstrated by the finished drill pipe and drill collar trends. From 2007 to 2008, U.S. producers of finished drill pipe and drill collars increased their production capacity by 4.4 percent and employment by 7.2 percent, and production decreased slightly by 6.7 percent despite a *** percent increase in subject import volume. The following year, as subject import volumes declined steeply, domestic production, employment, and U.S. shipments all declined as well. Overall, subject import volumes of finished drill pipe and drill collar declined by *** percent, U.S. production declined by 48.1 percent, employment declined by 27.1 percent, and U.S. shipments declined by 53.8 percent. This occurred in the context of a dramatic *** percent decline in demand, as measured by apparent U.S. consumption.\textsuperscript{106}

Accordingly, although indicators of the industry’s condition worsened during the period examined, the factors described above indicate that subject imports are not contributing materially to the domestic industry’s condition. Therefore, we find that the record does not demonstrate the requisite causal nexus between the subject imports and the condition of the domestic industry. For these reasons, we find that subject imports have not had a significant adverse impact on the domestic industry.

We have considered whether there are other factors that adversely affected the domestic industry. A more likely explanation for any volume losses by the industry was the severe decline in demand that began in late 2008.\textsuperscript{107} As described above, demand for drill pipe and drill collar depends on oil and gas

\textsuperscript{102} CR/PR at Tables III-7a-III-7d. During the period examined *** all either purchased or imported subject product from China and/or third country sources.

\textsuperscript{103} This was described in ***.” This filing was made in November 2009 and reflected the company’s expectations for the drill pipe market at that time. Significantly, this discussion makes no mention of subject imports as a contributing factor to the adjustment. CR at VI-33 n.21, PR at VI-12 n.21.

\textsuperscript{104} CR/PR at Table VI-1d.

\textsuperscript{105} CR/PR at Table C-1.

\textsuperscript{106} CR/PR at Table C-2.

\textsuperscript{107} The reported pricing data show that during the first and in some instances, second, quarters of 2009, domestic producers were able to increase their prices of products 1, 2, 3, 4, and 5. Domestic producers were able to raise the price of product 6 in the *** and this product had the largest average margin of overselling by subject imports

(continued...)
drilling rig counts.\textsuperscript{108} The level of drilling has experienced sharp upward and downward adjustments with some frequency over the past two decades, but has increased overall in the last ten years.\textsuperscript{109} Viewed within the context of these boom and bust cycles, the downturn that began in late 2008 was from an historic high in the rig count.\textsuperscript{110} Overall, demand declined by *** percent for unfinished drill pipe and drill collar and by *** percent for finished drill pipe and drill collar. As demand declined, subject imports retreated from the market and were sharply lower in 2009 and lower still in the first half of 2010 compared with the first half of 2009.\textsuperscript{111} The industry’s production, shipments, and employment levels all declined significantly as demand for these drilling products collapsed.\textsuperscript{112} Despite these changes in the market related to losses in volume, the industry remained profitable, even at very low levels of capacity utilization. The domestic producers of finished drill pipe and drill collar even gained *** percentage points of market share by quantity and *** percentage points of market share by value from 2008 to 2009.\textsuperscript{113} The domestic drill pipe and drill collar industry earned strong profits in 2007 and 2008 and remained profitable in 2009 and the first half of 2010.\textsuperscript{114} The number of producers collectively reporting operating profits exceeded those reporting operating losses in each period.\textsuperscript{115}

We have also considered the role of nonsubject imports in the market. Nonsubject imports were present in the market throughout the period examined and were a substantial source of supply, particularly for unfinished products. Several domestic producers are related to nonsubject producers of drill pipe and drill collars.\textsuperscript{116} The majority of nonsubject unfinished drill pipe imports were controlled by

\textsuperscript{107}(...continued) overall. CR/PR at Tables V-2-V-7, and V-9.
\textsuperscript{108} In responses to the questionnaires issued in these investigations, the majority of U.S. producers, importers, and purchasers reported that the business cycle for drill pipe and drill collars is based on the level of oil and gas prices and depends heavily on oil and gas rig counts. CR at II-25, PR at II-17.
\textsuperscript{109} CR/PR at Figure II-7, CR at II-25, PR at II-17. “Drill pipe is a cyclical business that follows the booms and busts in the oil and gas industry.” Hearing transcript, p. 202 (Murphy).
\textsuperscript{110} CR/PR at Figure II-7.
\textsuperscript{111} CR/PR at Tables C-1 and C-2.
\textsuperscript{112} From 2007 to 2009, production of unfinished drill pipe and drill collar declined by *** percent, U.S. shipments declined by *** percent, and the number of PRWs declined by *** percent. CR/PR at Table C-1. From 2007 to 2009, production of finished drill pipe and drill collar declined by 48.1 percent, U.S. shipments declined by 53.8 percent, and the number of PRWs declined by 27.1 percent. CR/PR at Table C-2.
\textsuperscript{113} CR/PR at Table C-2.
\textsuperscript{114} The unfinished drill pipe and drill collar producers’ gross profits totaled *** in 2007, *** in 2008, and *** in 2009. The operating income margin was *** percent initially, then rose to *** percent in 2008, and fell to *** percent in 2009 but was *** percent in the first half of 2010. The finished drill pipe and drill collar producer’s gross profits totaled $493.4 million in 2007, $481.9 million in 2008, and $258.9 million in 2009. The operating income margin for this portion of the industry was 34.4 percent in 2007, 32.1 percent in 2008, 23.2 percent in 2009 and 22.2 percent in interim 2010. CR/PR at Tables C-1 and C-2.
\textsuperscript{115} CR/PR at Tables VI-1a-V1-1d.
\textsuperscript{116} Domestic producers *** are all related to nonsubject producers. CR/PR at Table III-1.
domestic producers *** and ***. Nonsubject imports were responsive to changes in demand, decreased in quantity in each full year, and were lower in interim 2010 compared with interim 2009. Nonsubject import prices were generally priced higher than similar merchandise from China.

We find that the record does not show a correlation between subject imports and the domestic industry’s declining performance indicia during the period examined. The deterioration in the domestic industry’s performance indicators coincided with the global economic downturn and the fall in rig counts and appears to be demand driven, occurring while subject imports were decreasing overall during the period examined on an absolute basis. For the above reasons, we find that subject imports have not had a significant adverse impact on the domestic industry.

2. Analysis of Threat of Material Injury by Reason of Subject Imports

As discussed above, because we find neither a likelihood of substantially increased volumes of subject imports nor that subject imports are entering at prices that are likely to have a significant price-depressing or price-suppressing effect, we find that there is no imminent threat of an adverse impact on the domestic industry producing drill pipe and drill collars by reason of subject imports.

As an initial matter, we do not find that the domestic industry producing drill pipe and drill collars is currently vulnerable. In considering whether there are any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports of the subject merchandise, we note that, on the contrary, most trends point to a healthy industry that is weathering its normal business cycle, albeit one that has been exacerbated by the general economic recession. Indeed, throughout the period examined, U.S. producers invested in greater production capacity, experienced high levels of profitability, and currently remain in a strong position notwithstanding the gradual economic recovery. We recognize that in part these results were achieved through the shedding of workers after they were initially added in 2008. Other evidence supporting this

---


118 Domestic producer *** imports of unfinished drill pipe from nonsubject sources totaled *** short tons in 2007, *** short tons in 2008, and *** short tons in 2009, and accounted for *** percent of such imports in 2009. CR/PR at Tables III-7a and IV-1.


120 CR/PR at Tables H-1-H-3.

121 During the period examined, the domestic industry expanded and invested in its productive assets. For example, *** opened a finished drill pipe facility in 2008. Multiple other companies expanded their operations including ***. CR/PR at Table III-2.

122 In the first half of 2010, producers of unfinished drill pipe had an operating income to sales ratio of *** percent and producers of finished drill pipe and drill collar had an operating income to sales ratio of 22.2 percent or *** percent if adjustments for *** are included. CR/PR at Tables C-1, C-2, and Revised C-2 (financial).

123 The industry added *** workers in 2008, a time of strong demand, but as demand for its products fell these new hires and others were laid off. For U.S. Steel alone its “Voluntary Early Retirement Program” affected 500
conclusion indicates that: (1) demand is improving; (2) subject imports do not compete in the premium
segment of the market (an important and growing segment of the market that commands high prices); and
(3) U.S. producers are globally competitive in growing export markets.

Demand for drill pipe and drill collar is improving and is expected to continue to improve. The
demand drivers for this market-- oil and gas prices and the number of oil and gas rigs-- are all moving in a
positive direction. The number of total rigs operating in the United States has been rising since mid-2009
and is primarily attributable to an increase in the number of oil rigs.\textsuperscript{124} The North American rig count is
following the same trend and has been improving since mid-2009. Horizontal rigs in particular are
experiencing strong growth.\textsuperscript{125} Spears and Associates reported that the 2010 U.S. rig count was 1,537 and
the number of wells drilled was 52,146. The publication forecasts that the number of U.S. rigs will be
1,805 in 2011 and the number of wells drilled will be 64,368.\textsuperscript{126} In addition to the number of rigs that are
currently drilling, the footage drilled by those rigs determines the amount of drill pipe and drill collars
demanded. The footage drilled peaked in late 2008 and declined through early 2009. After remaining
relatively flat it began a steady climb in 2010.\textsuperscript{127}

These market improvements are reflected in the order books of domestic producers. U.S.
producers’ order books peaked in the second and third quarters of 2008 before falling to their lowest point
in the fourth quarter of 2009. Since reaching that low, they have rebounded to 2007 levels. For example,
as of September 30, 2010, order book levels were several thousand short tons above order book levels as
of September 30, 2007 and December 31, 2007.\textsuperscript{128}

In addition to improving demand, the domestic industry will also benefit from sales of premium
pipe. The domestic producers face minimal competition from subject imports for sales of premium drill
pipe. The Petitioners note that premium drill pipe, in many cases under patent, can only be manufactured
by several producers in the world, none of which are located in China.\textsuperscript{129} The information collected in
these investigations indicates that very limited amounts of drill pipe identified as “premium” were
imported from China. These quantities ranged from a high of just *** short tons in 2008 to a low of *** in interim 2010.\textsuperscript{130} A hearing witness explained that while Chinese manufacturers can provide some
premium products, acceptance is relatively limited on a worldwide basis and the major producer of
premium products in China is NOV Grant Prideco.\textsuperscript{131}

\textsuperscript{123} (…continued)

employees and saved $70 million companywide. CR/PR at Tables III-2, C-1 and C-2.

\textsuperscript{124} CR/PR at Figures II-3 and II-4.

\textsuperscript{125} CR/PR at Figure II-5.

\textsuperscript{126} Petitioner’s posthearing brief, exh. 1, p. 4.

\textsuperscript{127} CR/PR at Figure II-2. Another measure of demand is the ratio of purchasers’ reported number of rigs actively
drilled to the number of rigs owned or serviced. The ratio declined by 25 percentage points from December 2007 to
2009 and then recovered somewhat by June 2010. The ratio was 50.3 in December 2009 and 58.7 in June 2010. CR
at II-22, PR at II-13.

\textsuperscript{128} CR/PR at Table III-5. Combined order books were lowest, at 7,935 short tons on December 31, 2009 and
since then have increased irregularly to 25,371 short tons as of March 31, 2010, 42,451 short tons as of June 30,
2010, and 37,999 short tons as of September 30, 2010.

\textsuperscript{129} CR at I-32, PR at I-23.

\textsuperscript{130} CR/PR at Table D-1.

\textsuperscript{131} Hearing transcript, pp. 116-117 (de Rotalier), p. 195 (Leibowitz), p. 224 (Mostoway), and pp. 239-240
(Murphy).
Sales of premium drill pipe accounted for a growing share of total domestic sales during the period examined. As a share of domestic production, premium pipe accounted for *** percent in 2009. Premium drill pipe as a share of finished goods consumption increased from less than *** percent in 2007 to more than *** percent in 2009, before falling back below *** percent in the first half of 2010.\(^{132}\)

The growing use of premium drill pipe is being driven by increased drilling in high-risk applications, extreme reach drilling projects, high pressure or temperature wells, critical sweet or sour environments, and deep water drilling environments.\(^{133}\) The parties agree that pipe used in more difficult environments tends to wear out more quickly than that used under normal conditions.\(^{134}\) Information on this record suggests that demand for these products will continue to be strong. First, unconventional drilling, such as horizontal drilling for natural gas in shale plays, uses more premium pipe than conventional, vertical drilling. There has been a steady increase in the number of horizontal rigs operating in North America since early 2009.\(^{135}\) In addition, premium products are widely used in the demanding environment of offshore drilling.\(^{136}\) After the explosion of the Deepwater Horizon oil drilling rig off the coast of Louisiana, the number of offshore rigs plummeted from 53 to 12 by July 2010 but by the end of 2010 that number had increased to 24.\(^{137}\) Now that the moratorium on offshore drilling has been lifted and replaced by strict safety standards,\(^{138}\) that number will likely continue to rise, and with it the demand for premium drill pipe. Offshore rigs account for a small portion of total U.S. rigs\(^{139}\) but are more prevalent worldwide.\(^{140}\)

Premium drill pipe sells for significantly more than drill pipe. The average unit values of premium drill pipe exceeded those of finished drill pipe (other than premium drill pipe) in every year and by large amounts, ranging from $*** per short ton in 2009 to $*** per short ton in January-June 2010.\(^{141}\) Imports of premium drill pipe were so limited that pricing data were not collected for a premium product\(^{142}\) but in their comments on the draft questionnaires, Petitioners agreed that premium drill pipe sells for significantly more than API-grade drill pipe.\(^{143}\)

Finally, the domestic industry is globally competitive and will benefit from increased worldwide demand for its products. Domestic producers of finished drill pipe and drill collars exported a sizeable portion of their production during the period examined. Among finished drill pipe producers, export shipments totaled more than a quarter of all shipments in every full year and during the interim

\(^{132}\) Calculated from CR/PR at Tables C-2, D-1, and D-2. Domestic production of premium drill pipe totaled *** short tons in 2007, *** short tons in 2008, and *** short tons in 2009. Production was *** short tons in interim 2009 and *** short tons in interim 2010. CR/PR at Table D-1.

\(^{133}\) CR at I-33-I-34, II-24-25, PR at I-23-24, II-17.

\(^{134}\) CR at II-24, PR at II-17.

\(^{135}\) CR/PR at Figure II-5.

\(^{136}\) Hearing transcript, p. 33 (Fields), p. 61 (de Rotalier).

\(^{137}\) CR at II-24, PR at II-17.

\(^{138}\) CR at III-8 fn.10, PR at III-6 fn.10.

\(^{139}\) CR at II-24, PR at II-15, CR/PR at Figure II-6.

\(^{140}\) Hearing transcript p. 33 (Fields), and p. 61 (de Rotalier).

\(^{141}\) CR/PR at Table I-7, CR at I-37, PR at I-25.

\(^{142}\) CR at V-7 fn 28, PR at V-5 n.28.

\(^{143}\) CR at I-32, PR at I-23.
periods.\textsuperscript{144} Finished drill collar producers were also large exporters with exports as a share of shipments ranging from 19.0 to 49.0 percent during the three calendar years.\textsuperscript{145} Furthermore, the average unit values of export shipments were generally higher than those of U.S. shipments. Although this likely reflects differences in product mix, the higher average unit values for exports, coupled with their large volume, demonstrate that domestic producers compete successfully in global drill pipe and drill collar markets. With worldwide demand for these products forecast to increase in 2011,\textsuperscript{146} the domestic industry can be expected to continue to export its products at favorable prices in the future.

Given our conclusion that subject imports likely will not substantially increase and likely will not have significant adverse price effects in the imminent future, we find that subject imports will not likely have a significant adverse impact on the performance of the domestic industry. The recovery of demand, limited competition in the premium segment of the market, and growth in export markets, suggest strongly that the domestic industry is poised for increased production, sales, and profits. Therefore, we find that further dumped or subsidized imports are not imminent and that material injury by reason of subject imports will not occur absent issuance of an antidumping duty order or countervailing duty order against subject imports. Accordingly, we conclude that the domestic drill pipe and drill collar industry is not threatened with material injury by reason of subject imports from China.

\textbf{CONCLUSION}

For the reasons stated above, we find that the domestic industry producing drill pipe and drill collars is neither materially injured nor threatened with material injury by reason of subject imports from China.

\textsuperscript{144} CR/PR at Table III-4b. Finished drill pipe export shipments as a share of total shipments were 25.6 percent in 2007, 37.8 percent in 2008, 35.7 percent in 2009, 35.0 percent in January-June 2009, and 37.1 percent in January-June 2010.

\textsuperscript{145} CR/PR at Table III-4d. Finished drill collar export shipments as a share of quantity were 19.0 percent in 2007, 37.7 percent in 2008, 49.0 percent in 2009, 53.4 percent in January-June 2009, and 51.7 percent in January-June 2010.

\textsuperscript{146} Spears and Associates reported that the 2010 global rig count was 4,916 and the number of wells drilled was 104,846. The publication forecast the number of worldwide rigs would be 5,467 in 2011 and the number of wells drilled would be 121,540. Petitioner’s posthearing brief, exh. 1, p. 4.
PART I: INTRODUCTION

BACKGROUND

These investigations result from a petition filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by VAM Drilling USA Inc. (“VAM”), Houston, TX; Rotary Drilling Tools (“RDT”), Beasley, TX; Texas Steel Conversions, Inc. (“TSC”), Houston, TX; TMK IPSCO (“TMK”), Downers Grove, IL; and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL-CIO-CLC (“Union”), Pittsburgh, PA, effective December 31, 2009, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value (“LTFV”) imports of drill pipe and drill collars\(^1\) from China. Information relating to the background of the investigations is provided below.\(^2\)

<table>
<thead>
<tr>
<th>Effective date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 31, 2009</td>
<td>Petition filed with Commerce and the Commission; institution of Commission’s investigations (75 FR 877, January 6, 2010)</td>
</tr>
<tr>
<td>January 27, 2010</td>
<td>Commerce’s notice of initiation of countervailing duty investigation (75 FR 4345)</td>
</tr>
<tr>
<td>January 28, 2010</td>
<td>Commerce’s notice of initiation of antidumping duty investigation (75 FR 4531)</td>
</tr>
<tr>
<td>March 8, 2010</td>
<td>Commission’s preliminary determination (75 FR 10501)</td>
</tr>
<tr>
<td>June 11, 2010</td>
<td>Commerce’s preliminary countervailing duty determination (75 FR 33245)</td>
</tr>
<tr>
<td>August 18, 2010</td>
<td>Commerce’s preliminary antidumping duty determination (75 FR 51004); correction of Commerce’s preliminary antidumping duty determination (75 FR 51014); scheduling of final phase of Commission investigations (75 FR 54912, September 9, 2010)</td>
</tr>
<tr>
<td>January 5, 2011</td>
<td>Commission’s hearing(^1)</td>
</tr>
<tr>
<td>January 11, 2011</td>
<td>Commerce’s final antidumping duty determination (76 FR 1966); Commerce’s final countervailing duty determination (76 FR 1971)</td>
</tr>
<tr>
<td>February 7, 2011</td>
<td>Commission’s vote</td>
</tr>
<tr>
<td>February 24, 2011</td>
<td>Commission’s determination transmitted to Commerce</td>
</tr>
</tbody>
</table>

\(^1\) A list of witnesses appearing at the hearing is presented in app. B.

\(^2\) See the section entitled “The Subject Merchandise” in Part I of this report for a complete description of the merchandise subject to these investigations.

Federal Register notices issued during the final phase of these investigations and cited in the tabulation are presented in app. A.
STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory Criteria

Section 771(7)(B) of the Tariff Act of 1930 (the “Act”) (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission--shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and . . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--

In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.

. . .

In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether . . . (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.

. . .

In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to . . .

(I) actual and potential declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.
Organization of the Report

Part I of this report presents information on the subject merchandise, subsidy and dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission’s consideration of the question of threat of material injury as well as information regarding nonsubject countries.

U.S. MARKET SUMMARY

Drill pipe and drill collars are drill string components produced in a range of diameters and wall thicknesses, but typically in standard lengths of just over 30 feet. Drilling rigs (particularly those intended to extract oil and gas) generally use a drill string to transmit power from a drilling motor located above the surface to a rotating drill bit below the surface. In addition, the hollow interior cavities of drill pipe and drill collars conduct a lubricant called “drilling mud” down to the drill bit to flush drill cuttings around the drill string and up to the surface. Once rigs complete the drilling stage of their operations, which can range from several hundred feet to many thousands of feet, drill pipe and drill collars are removed (or “triped”) and stored in stands of up to 90 feet.

The leading U.S. producer of finished drill pipe is National Oilwell Varco Grant Prideco (“NOV Grant Prideco”), followed by (in alphabetical order) RDT, Smith International, Inc. (“Smith”), TSC, and VAM. The leading U.S. producer of finished drill collars is Smith, followed by NOV Grant Prideco. The leading U.S. producer of unfinished drill pipe is The Timken Company (“Timken”), followed by United States Steel Corporation (“U.S. Steel”) and TMK. The only reported U.S. producers of unfinished drill collars are Sunbelt Texas Steel (“Sunbelt”) and Timken.

The leading producers of finished drill pipe in China include *** while the leading producers of finished drill collars in China are ***. The leading producers of unfinished drill pipe in China include *** while the leading producers of unfinished drill collars in China are ***.

The leading U.S. importers of finished drill pipe from China are Command Energy Services International Ltd. (“Command”) and Downhole Pipe & Equipment, L.P. (“Downhole”) (collectively referred to as respondents), while the leading importers of finished drill collars from China are *** and Command.3 The leading U.S. importer of unfinished drill pipe from China is ***.4 Leading importers of finished drill pipe from nonsubject countries are ***, while the leading importers of unfinished drill pipe from nonsubject countries (primarily Austria, Germany, and France) include Benteler Steel & Tube Corporation (“Benteler”), NOV Grant Prideco, and VAM. The leading importers of finished drill collars from nonsubject countries are ***.

Leading U.S. purchasers of drill pipe and/or drill collars include the following firms: ***, a drilling contractor; ***, a distributor; ***, a rental equipment company; ***, a contractor; ***, a processor; and ***, a contractor. All of these firms reported purchasing drill pipe and drill collars valued at more than $***. Among the large purchasers, ***.

Apparent U.S. consumption of finished drill pipe totaled approximately *** short tons with a value of $*** in 2009. Apparent U.S. consumption of finished drill collars totaled approximately *** short tons with a value of $*** in 2009. Currently, 14 firms are confirmed to produce drill pipe and drill

---

3 Because *** did not provide a response in the final phase, Staff used the company’s preliminary phase response to the Commission’s questionnaire, ***.

4 There are believed to be limited imports of unfinished drill collars into the United States.

**SUMMARY DATA AND DATA SOURCES**

A summary of data collected in the investigations appears in appendix C, tables C-1 through C-5, and appendix D, tables D-1 and D-2. Except as noted, U.S. industry data are based on questionnaire responses of 13 firms that accounted for the vast majority of U.S. production of drill pipe and drill collars during period for which data were collected. U.S. imports of the subject merchandise are based on the reporting by 33 firms that are believed to account for over 90 percent of U.S. imports of drill pipe and drill collars from China for each period for which data were collected.

**PREVIOUS AND RELATED INVESTIGATIONS**

The Commission has conducted numerous investigations concerning oil country tubular goods. However, the Commission has only been able to obtain separate data for drill pipe since the mid-1990s, and has not previously sought to obtain separate data for drill collars. Table I-1 presents information regarding prior investigations in which the Commission has specifically considered the issue of drill pipe.

\(^5\) *** is one of the 14 known producers of drill pipe; however, the firm was not able to provide the Commission with sufficient useable data even after follow up by Commission staff.

\(^6\) Unfinished drill pipe consumption in 2009 was *** short tons with a value $*** and primarily consisted of Austrian origin product. Unfinished drill collar consumption as reported in 2009 was *** short tons with a value of $*** and consisted of largely U.S.-origin product because there are believed to be limited imports of unfinished drill collars.
**Table I-1**  
Drill pipe: Previous and related investigations and reviews, 1995-2010

<table>
<thead>
<tr>
<th>Investigations</th>
<th>Countries</th>
<th>Outcome</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>701-TA-363-364 (F)</td>
<td>Argentina, Austria, Italy, Japan, Korea, Mexico, Spain</td>
<td>Negative determination with respect to Austria, Italy, Korea, and Spain; affirmative determination with respect to Argentina, Japan, and Mexico (USITC Pub. 2911, August 1995)</td>
<td>Antidumping duty orders issued with respect to drill pipe from Argentina, Japan, and Mexico.</td>
</tr>
<tr>
<td>731-TA-711-717 (F)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>731-TA-276-277 (1R)</td>
<td>Canada, Taiwan</td>
<td>Negative determination in first review (USITC Pub. 3316, July 2000). In the original investigations, the Commission found drill pipe to be a distinct domestic like product but available data did not allow separate consideration.</td>
<td>Antidumping duty orders revoked.</td>
</tr>
<tr>
<td>731-TA-711, 714, 716 (1R)</td>
<td>Argentina, Japan, Mexico</td>
<td>Negative determination with respect to Argentina and Mexico, affirmative determination with respect to Japan (USITC Pub. 3434, June 2001)</td>
<td>Antidumping duty orders revoked with respect to drill pipe from Argentina and Mexico, continued with respect to Japan.</td>
</tr>
<tr>
<td>701-TA-428 (P)</td>
<td>Austria, Brazil, China, France, Germany, India, Indonesia, Romania, South Africa, Spain, Turkey, Ukraine, Venezuela</td>
<td>Negative determinations (USITC Pub. 3511, May 2002). The Commission defined the domestic like product consistent with Commerce’s scope (including oil well casing, tubing, and drill pipe, whether finished or unfinished, but excluding finished drill pipes with tool joints attached), but recognized the merits of arguments in favor of two domestic like products: (1) casing/tubing and (2) drill pipe.</td>
<td>No orders issued.</td>
</tr>
<tr>
<td>731-TA-992-994, 996-1005 (P)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note.—On April 9, 2009, U.S. producers filed antidumping and countervailing duty petitions covering imports of certain oil country tubular goods from China. The petition and subsequent scope of Commerce’s investigations specifically included casing, tubing, and coupling stock, and specifically excluded drill pipe. Accordingly, during the final phase of the Commission’s investigations, Staff presented U.S. imports as compiled from official Commerce statistics for HTS subheadings 7304.29, 7305.20, 7306.20, and 7306.29 – but not subheadings 7304.22 or 7304.23 (the subheadings that cover drill pipe, other than that fitted with tool joints). Similarly, Staff presented separate data for mill production of drill pipe in the United States and in China as one of several alternatives to the production of casing, tubing, and coupling stock (others included standard, line, and pressure pipe; pressure tubing; and mechanical tubing). Data reported by TMK and U.S. Steel for 2008 mill production of drill pipe as an alternative product was consistent with data reported by these producers in the current investigations. Timken produces drill pipe but not casing, tubing, or coupling stock. Accordingly, mill production of drill pipe was not included in the datasets for casing, tubing, and coupling stock presented in Certain Oil Country Tubular Goods from China, Investigation Nos. 701-TA-463 and 731-TA-1159 (Final).

Source: Cited USITC publications.
NATURE AND EXTENT OF SUBSIDIES AND SALES AT LTFV

Subsidies

On January 11, 2011, Commerce published a notice in the Federal Register of its final determination of countervailable subsidies for producers and exporters of drill pipe and drill collars from China. Table I-2 presents Commerce’s findings of subsidization of drill pipe and drill collars in China.

Table I-2
Drill pipe: Commerce’s final subsidy determination with respect to imports from China

<table>
<thead>
<tr>
<th>Entity</th>
<th>Countervailable subsidy margin (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All others</td>
<td>18.18</td>
</tr>
</tbody>
</table>


Sales at LTFV

On January 11, 2011, Commerce published a notice in the Federal Register of its final determination of sales at LTFV with respect to imports from China. Table I-3 presents Commerce’s dumping margins with respect to imports of drill pipe and drill collars from China.

Table I-3
Drill pipe: Commerce’s final weighted-average LTFV margins with respect to imports from China

<table>
<thead>
<tr>
<th>Exporter</th>
<th>Producer</th>
<th>Dumping margin (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP-Master Group</td>
<td>DP-Master Group</td>
<td>69.32</td>
</tr>
<tr>
<td>Baoshan Iron &amp; Steel Co., Ltd.</td>
<td>Baoshan Iron &amp; Steel Co., Ltd.</td>
<td>de minimis</td>
</tr>
<tr>
<td>Shanxi Yida Special Steel Imp. &amp; Exp. Co., Ltd.</td>
<td>Shanxi Yida Special Steel Group Co., Ltd.</td>
<td>de minimis</td>
</tr>
<tr>
<td>Shanxi Fenglei Drilling Tools Co., Ltd.</td>
<td>Shanxi Fenglei Drilling Tools Co., Ltd.</td>
<td>69.32</td>
</tr>
<tr>
<td>Jiangyin Long-Bright Drill Pipe Manufacturing Co., Ltd.</td>
<td>Jiangyin Long-Bright Drill Pipe Manufacturing Co., Ltd.</td>
<td>69.32</td>
</tr>
<tr>
<td>All others</td>
<td></td>
<td>429.95</td>
</tr>
</tbody>
</table>


---

THE SUBJECT MERCHANDISE

Commerce’s Scope

Commerce has defined the scope of these investigations as follows:
The products covered by the investigation are steel drill pipe, and steel drill collars, whether or not conforming to American Petroleum Institute (“API”) or non-API specifications. Included are finished drill pipe and drill collars without regard to the specific chemistry of the steel (i.e., carbon, stainless steel, or other alloy steel), and without regard to length or outer diameter. Also included are unfinished drill collars (including all drill collar green tubes) and unfinished drill pipe (including drill pipe green tubes, which are tubes meeting the following description: seamless tubes with an outer diameter of less than or equal to 6 5/8 inches (168.28 millimeters), containing between 0.16 and 0.75 percent molybdenum, and containing between 0.75 and 1.45 percent chromium). The scope does not include tool joints not attached to the drill pipe, nor does it include unfinished tubes for casing or tubing covered by any other antidumping or countervailing duty order. 9

Tariff Treatment

Drill pipe and drill collars are classifiable in the HTS under subheadings 7304.22, 7304.23, and 8431.43. Drill pipe, other than that fitted with tool joints, is covered by the following HTS statistical reporting numbers: 7304.22.0030, 7304.22.0045, 7304.22.0060, 7304.23.3000, 7304.23.6030, 7304.23.6045, and 7304.23.6060.10 Drill pipe with tool joints attached is treated by Customs as machinery parts and is covered by HTS statistical reporting number 8431.43.8040, while drill collars are covered by HTS statistical reporting number 8431.43.8060 (a broad category that includes a substantial volume of nonsubject merchandise). General rates of duty for all these statistical reporting numbers are free.

THE DOMESTIC LIKE PRODUCT

Overview

Steel pipes and tubes are made in circular, rectangular, or other cross sections, and are generally manufactured by either a welded or seamless production process. Steel pipes and tubes manufactured by either process can be categorized by the type of steel used in production11 as well as by end use. The American Iron and Steel Institute (AISI) defines six such end-use categories: standard pipe, line pipe, structural pipe and tubing, mechanical tubing, pressure tubing, and oil country tubular goods (OCTG).12

---


10 Prior to February 2, 2007, drill pipe, other than that fitted with tool joints, was covered under HTS statistical reporting numbers 7304.21.3000, 7304.21.6030, 7304.21.6045, and 7304.21.6060.

11 Steel types include carbon steel as well as heat-resisting, stainless, and other alloy steels.

12 Standard, line, and pressure pipe are generally intended to convey liquids and are typically tested and rated for the ability to withstand hydrostatic pressure. Structural pipe and tubing is used for load-bearing purposes and construction, although only small amounts of seamless pipe are used in structural applications. Mechanical tubing is (continued...)
Steel pipes and tubes generally are produced according to standards and specifications published by a number of organizations, including the American Petroleum Institute (API),13 the American Society for Testing and Materials (ASTM), and the American Society of Mechanical Engineers (ASME). Comparable organizations in the United Kingdom, Japan, Russia, and other countries also have developed standard specifications for steel pipes and tubes.14

The products that are the focus of this proceeding consist of drill pipe and drill collars, two of the many tools used on drilling rigs (particularly those intended for oil and gas production). In general terms, drilling rigs consist of a support structure such as a derrick (for onshore drilling) or a platform (for offshore drilling); power and mechanical systems; rotating equipment; and lining and circulation equipment (see figure I-1). A central element of the rotating equipment, in turn, is the drill string, which transmits power from the drilling motor above the surface to the drill bit below, and which conducts drilling mud to the drill bit to flush drill cuttings through the space between the drill string and the casing lining the hole to the surface (see figure I-2). The upper portion of the drill string consists in large part of drill pipe. The lower portion of the drill string, or bottom hole assembly, typically includes heavy-weight drill pipe (serving as a transition between the conventional drill pipe and the drill collars); crossovers or subs (typically short accessories used to join different components or to join components with different diameters or thread types); drill collars (required to place additional weight on the drill bit); and the drill bit itself.15

12 (...)continued

13 API is a trade organization serving the petroleum industry. API is an American National Standards Institute (“ANSI”) accredited standards developing organization, operating with approved standards development procedures and undergoing regular audits of its processes. In addition, API produces recommended practices, specifications, codes and technical publications, reports, and studies that cover each segment of the petroleum industry. API states that its standards promote the use of safe, interchangeable equipment and operations through the use of proven, sound engineering practices as well as help reduce regulatory compliance costs. In conjunction with API’s Quality Programs, many of these standards form the basis of API certification programs.

14 Particular specifications to which pipe products are produced are commonly marked on each pipe and are referred to as a “stencil.”

15 See, e.g., conference transcript, p. 45 (Morris). Drill rigs in deeper or more challenging environments, or those drilling horizontally instead of, or in addition to, vertically, may employ additional components in their bottom hole assembly, such as a mud motors and their housings (known as stators) and advanced measurement systems (e.g., measurement-while-drilling or logging-while-drilling (“MWD” or “LWD”) tools) that are frequently encased in intensively machined sensor housings of non-magnetic material (also referred to as drill collars). See, e.g., Staff interview and plant tour at TBS (October 29, 2010); Staff interview and plant tour at TSC (October 28, 2010); and correspondence from *** to Staff regarding the Commission’s questionnaire, November 18, 2010.
Figure I-1
Drill pipe and drill collars: Simplified diagrammatic representation of a well that is being used to bring oil and/or natural gas to the surface

Figure I-2
Drill pipe and drill collars: Drill string showing relative position of drill pipe, heavy-weight drill pipe, drill collars, and connecting tool joints when drilling for oil and/or natural gas


I-10
Description and Applications

Drill Pipe

A single length (or joint) of drill pipe comprises a hollow tube, generally 30-31 feet long, with a wall thickness of less than 0.5 inch, and a tool joint connection on each end. Because drill pipe is subject to torsional stresses and fatigue during drilling operations, it must be seamless and heat-treated to meet or exceed API specifications.

The subject product includes finished drill pipe as well as unfinished pipe used in the manufacturing of finished drill pipe. Such unfinished pipe is known as “green tube” and is produced by seamless pipe mills. Producers of finished drill pipe heat treat and forge (upset) the green tube so that they can weld separately manufactured tool joints (steel components with a rotary shoulder connection) to either end. The tool joint itself is a heavy coupling element with robust, tapered threads. It is designed to sustain the weight of the drill stem, withstand the strain of repeated connection and disconnection, and provide a leak-proof seal. The male tool joint section (or pin, with threads cut on the outside) is attached to one end of the length of drill pipe and the female tool joint section (or box, with threads cut on the inside) is attached to the other end. Like drill pipe, tool joints are subject to stress caused by shear and vibration, and consequently fatigue.

Heavy-weight drill pipe is characterized by thicker walls and longer tool joints than conventional drill pipe. This intermediate-weight pipe has a wall thickness of approximately one inch and has an integral wear pad in the middle. Heavy-weight drill pipe is designed to provide a gradual transition from the lighter, thinner-walled conventional drill pipes to the heavier drill collars to help reduce drill pipe fatigue or failure and prevent stress concentration at the top of drill collar. Heavy-weight drill pipe also allows drilling at higher speeds, reducing torque and differential pressure sticking. Heavy-weight drill pipe is well-suited for directional drilling because it bends easily, simplifies directional control, and minimizes connection fatigue problems common to high-angle or horizontal drilling.

Premium drill pipe is specifically designed for drilling conditions which require properties surpassing those specified by the API standards. As such, premium drill pipe typically contains alloy additions that enhance its toughness, a necessary feature for drilling in a corrosive, sulphurous (or “sour”) environment or under other harsh conditions. Premium drill pipe has the same physical dimensions (including length and diameters) as standard drill pipe but may also have different thread designs from

---

17 The API specifies four grades of standard drill pipe of different tensile strengths. These tensile strengths specify the pulling force per unit area at which the material will fail and are typically measured in pounds per square inch (psi). The four API grades include: grade E (maximum tensile strength at 100,000 psi), grade X (105,000 psi), grade G (115,000 psi), and grade S (145,000 psi). ANSI/API Specification for Drill Pipe, First Edition, August 2009, table A-3, p.54.
18 The scope of these investigations does not include tool joints that are not attached to drill pipe.
19 Differential pressure sticking is the rubbing of the tool joint against the wall of the hole. Differential pressure sticking usually takes place in directional drilling. S.T. Hurton, “Rotary Drilling: Drill String and Drill Collars,” University of Texas at Austin and International Association of International Contractors, third edition, 1995, p. 66.
API standards for certain operational conditions. As such, “premium” drill pipe is manufactured to proprietary, sometimes patented, specifications as will be discussed later. This range of drill pipe, however, should not be confused with premium used drill pipe, a term which generally refers to used drill pipe with substantial wear remaining on its body walls.

**Drill Collars**

Drill collars are heavy, thick-walled, machined products that are designed to guide, stabilize, provide stiffness, and add weight to the drill bit to drill a more vertical hole, but are not necessary for horizontal drilling. Most drill collars are round with lengths of about 30 feet. The inside diameter (I.D.) of a drill collar ranges from 2 inches to 3 inches, and the outside diameter (O.D.) ranges from 4 inches to 11 inches. To reduce differential pressure sticking, the surface of the drill collar can have spiral grooves or the drill collars may be of square cross section.

**Manufacturing Processes**

**Drill Pipe**

The manufacturing process for the body of the drill pipe consists of two phases. The first phase, forming, is performed by pipe mills, while the second phase, finishing, generally is performed by processors (although there is some overlap in terms of heat treatment).

---

21 Staff interview and plant tour at TSC (October 28, 2010); Staff telephone interview with ***, November 19, 2010.

22 As requested by the petitioners, the Commission’s questionnaires defined premium drill pipe as “Generally considered to be drill pipe whose tube body, tool joint, and/or tool joint connections surpass API specifications. Specifically Premium Drill Pipe:

   (1) Specifies the drill pipe body or tool joint material as:
      a. Conforming to API 5DP (or ISO 11961) at Product Specification Level PSL-3, or
      b. Conforming to common premium specifications such as NS-1 (Shell Squires) or IRP, or
      c. Having minimum yield strength which is appreciably above S135, with PSIs or 150 or above,
      - OR -
   (2) Includes drill pipe threaded connections which:
      a. Do not conform to the threaded connections listed in either API Specifications 7-2, ISO 10424-2, or API Recommended Practice 7G, and
      b. Have minimum mechanical ratings exceeding those of Standard Drill Pipe connections by more than 15%, with the tool joint of the same nominal outside diameter and inside diameter.”

23 See, e.g., “Drill Pipe,” promotional material available from RDT. Several questionnaire respondents offered similar observations.

24 The drill bit is the cutting or pulverizing head which bores through underground formations. See S.T. Horton, “Rotary Drilling: Drill String and Drill Collars,” University of Texas at Austin and International Association of International Contractors, third edition, 1995, p. 5.


In the forming phase, the initial raw material is a solid steel billet. Green tube generally is manufactured by either of two high temperature processes to form a central cavity in the billet. In the rotary piercing process, a heated billet is gripped by angled rolls that cause the billet to rotate and advance over a piercer point, forming a hole through the billet’s length. In the extrusion process, the billet is hot-punch pierced and then extruded axially through a die and over a mandrel, forming a hollow shell. The hollow shell produced by either process is then rolled with either a fixed plug or a continuous mandrel inside the shell to reduce the wall thickness and increase the length. The shell is then rolled in a sizing mill or a stretch reduction mill where it is formed into a true round and sized to the specified diameter.

Subsequent to the forming phase, the green tube can be transferred to a processor where it will go through the finishing phase, in which the pipe is heated, upset, heat-treated, inspected, and straightened. All drill pipe is heat-treated through its full length after upsetting. In general, the nature of the heat treatment depends on the grade of the pipe and includes a combination of normalizing, tempering, and quenching. Heat treatments for drill pipe are agreed to between the buyer and maker or specified by the API.

Following the above processes, the drill pipe tube is finished by welding a tool joint to each end of the drill pipe tube using rotational friction. The pin is attached to one end of the length of drill pipe tube and the box is attached to the other end. No filler is used. In friction welding, the heat for the weld is created by pressuring one piece of metal against another piece that is rotated at high speed.

The drill pipe with tool joint will undergo an additional heat treatment, albeit using a polymer rather than water as the quenching agent to provide a gradual cooling process. The drill pipe is machined smooth and inspected using a range of tests that vary according to the preference of the customer. Following inspection, internal plastic coating may be applied by the processor, if requested by the customer (although this process may alternatively be performed by an outside party at the preference of the processor or of the customer). Figure I-3 presents a schematic for the manufacturing of drill pipe.

A tool joint can be made either from a seamless pipe that is cut to length or from a steel billet, bored to size. The tool joint blank is then heat-treated, threaded, hardbanded, coated with phosphate for protection against corrosion, and inspected as depicted in figure I-4.

A similar process is typically used to produce “premium” drill pipe. However, the green tube for premium drill pipe is typically manufactured to a greater minimum wall thickness than that of the standard drill pipe, even if both are specified to the same nominal wall thickness. In the “upset” process, premium drill pipe is subject to more stringent control of the transition in internal diameters. Furthermore, because of the differences in chemical compositions and/or mechanical properties between

---

27 The billet is either round as rolled, or square. If a square billet is used, it is forced through a single circular roll pass, prior to the formation of the central cavity.

28 For a detailed description of the tube-forming operations employed by two of the three U.S. mills that manufacture unfinished drill pipe in the United States, see Staff interviews and plant tours at Timken (August 10, 2010) and U.S. Steel / Lorain (August 11, 2010).

29 In the upsetting process, the pipe ends are first heated to forging temperature and then quickly inserted into a special forging press or upsetter. The press will form a pipe upset that is thicker than the pipe wall by pressing the hot metal around a set of special forging dies. Dimensional tolerances for the various pipe sizes and upset configurations are specified by API standards.


31 Tool joints may also be screwed onto the pipe.

32 NOV Grant Prideco produces tool joints at a different facility than its drill pipe because tool joints require different equipment and processes. Staff interview and plant tour at NOV Grant Prideco (January 13, 2010).

33 Hardbanding is the application of a special wear-resistant material to tool joints to prevent abrasive wear to the area when the pipe is being rotated downhole.
API and premium drill pipe, the heat treatment processes (including the tempering procedure) for the premium drill pipe typically takes place at a higher temperature and for a longer time than for a standard API drill pipe even if the minimum yield strength is the same as specified by API. During the production process, premium drill pipe may be also subject to more extensive testing and documentation than API standard drill pipe.  

The production of heavy-weight drill pipe typically begins with a seamless green tube as previously described. Heavy-weight drill pipe is made to ANSI/API Specification 7-1 and is produced in a generally similar fashion as conventional drill pipe. However, additional machining is required to produce heavy-weight drill pipe’s characteristic integral wear pad in the middle of its body and its optional spiral patterns.

Drill Collars

Drill collars begin with a solid round steel bar that is bored or trepanned to form a continuous seamless product. The boring or trepanning process can be performed by a drilling specialist (such as Timken’s TBS facility in Houston, TX) or by a processor (such as NOV Grant Prideco). At Timken’s TBS facility, production begins by precision straightening the bar stock. Next, the bar is placed in a rotating drill, typically with drilling tools on either end. The double ended drilling machines rotate the bar while the left and right drilling tools remain stationary. The action of the drilling tools ejects the cuttings. Total processing time is about ***. Alternatively, counter-rotational drilling machines rotate the bar and the drilling tools in opposite directions. The counter-rotational process addresses the potential for mismatching (mis-alignment of the left and right holes) and is used primarily for ***. Processing time is nearly *** times that of the conventional drilling machines. At NOV Grant Prideco, the bar goes through a heat treatment process for *** hours at *** degrees Fahrenheit that is followed by a water quench process to freeze the pipe’s microscopic structure to *** degrees Fahrenheit. The bar is then tempered in another furnace at *** degrees Fahrenheit to achieve the desired mechanical property before being straightened and bored or trepanned by carbide thread cutters. Spiral grooves may also be formed and hardbanding applied to the outside of the drill collars. Since the wall of the collar is very thick, threads are cut directly into each end of the drill collar so that it can be connected to other collars. Phosphate coating and inspections are usually the final processes. See figure I-5 for a depiction of the manufacturing process for drill collars.

---

34 ***.
36 Timken manufactures both conventional and heavy-weight drill pipe green tubes on its piercing mills at the Gambrinus Plant in Canton, OH. Staff interview and plant tour at Timken (August 10, 2010).
37 Staff interviews and plant tours at TSC and RDT (October 28, 2010). NOV Grant Prideco ***. Staff interview and plant tour at NOV Grant Prideco (January 13, 2010).
38 In a drilling process, the drilled metal is removed as chips. However, for large or deep hole drilling, such as for drill collars, either drilling or trepanning can be used. In a drilling or boring operation, the drilled hole is enlarged by the rotation of one or two cutting tools. In trepanning, a hollow tool cuts around a centered circle, leaving a central core material with very little chip. Trepanning is typically used for holes that are larger than 6 inches in diameter and when the core material is more valuable than the chip metal.
39 Staff interview and plant tour at TBS (October 29, 2010).
40 Staff interview and plant tour at NOV Grant Prideco (January 13, 2010).
Figure I-3
Drill pipe: Manufacturing process for drill pipe

Figure I-4
Drill pipe: Manufacturing process for tool joint

Figure I-5
Drill collar: Manufacturing process for drill collar

DOMESTIC LIKE PRODUCT ISSUES

The Commission’s decision regarding the appropriate domestic product(s) that are “like” the subject imported product is based on a number of factors including: (1) physical characteristics and uses; (2) common manufacturing facilities and production employees; (3) interchangeability; (4) customer and producer perceptions; (5) channels of distribution; and (6) price. Information regarding these factors is discussed below.

For the purposes of its determinations in the preliminary phase of these investigations, the Commission found, “a single domestic like product that includes drill pipe and drill collars, whether in finished or unfinished forms, including green tubes, in a manner that is coextensive with the scope of these investigations.”41 With respect to drill pipe and drill collars, the Commission found the evidence on the record in the preliminary phase of these investigations to show “some overlapping physical characteristics and similar uses (but not interchangeability), overlapping channels of distribution, some commonality in manufacturers, manufacturing processes, and labor (but differences in prices).”42

The petition in these investigations explicitly references drill pipe and drill collars; this is a departure from language appearing in the scopes of previous proceedings involving drill pipe, which have not made any reference to drill collars.43 Both parties stated that drill collars are part of the domestic like product.44 Petitioners contend that the Commission should find one domestic like product coextensive with Commerce’s scope.45 Respondents do not contest the inclusion of drill collars.46

Petitioners contend that unfinished drill pipe and finished drill pipe are part of a continuum and should be part of a single domestic like product.47 Petitioners also maintain that unfinished drill pipe (even in its green tube stage) can be used only to make drill pipe. Petitioners further argue that green tube for drill pipe differs from green tube for casing and tubing and therefore must be considered, in this case, as a single product “like” finished drill pipe and drill collars.48 Like petitioners, respondents argue that the Commission should find one domestic like product consisting of a continuum of drill pipe and drill collars.49

43 “The products covered by this order consist of oil country tubular goods, hollow steel products of circular cross-section, including oil well casing, tubing, and drill pipe, of iron (other than cast iron) or steel (both carbon and alloy), whether seamless or welded, whether or not conforming to American Petroleum Institute (API) or non-API specifications, whether finished or unfinished (including green tubes and limited service OCTG products). This scope does not cover casing, tubing, or drill pipe containing 10.5 percent or more of chromium.” See Oil Country Tubular Goods From Argentina, Italy, Japan, Korea, and Mexico, USITC Publication 3923, June 2007, p. 7 (citing a May 1, 2007, memorandum to the file by Commerce’s Program Manager). Staff notes that the scope of the current investigations includes stainless steel products, another distinction from prior drill pipe cases. However, U.S. production of stainless steel products is believed to be limited to drill collars.
44 Hearing transcript, p. 25 (Chen) and p. 174 (Schagrin).
45 Petitioners’ postconference brief, p. 2 and petitioners’ prehearing brief, p. 3.
46 Respondents argue that the Commission should find one like product consisting of drill pipe and drill collars. Hearing transcript, p. 25 (Chen).
47 Petitioners’ prehearing brief, p. 3.
48 Petitioners’ postconference brief, p. 7.
49 Respondents’ posthearing brief, p. 3, fn. 1. Prior to Commerce’s final determinations which specifically included unfinished drill pipe, respondents argued that the Commission should find unfinished drill pipe a separate domestic like product. Respondents contended that green tube is a commodity product that can be used to make a (continued...)
Petitioners contend that premium drill pipe is a separate like product from API-grade drill pipe.\(^{50}\) Respondents argue that premium drill pipe is part of a continuum and is not a separate like product.\(^{51}\)

**Drill Pipe and Drill Collars**

**Physical Characteristics and Uses**

Finished drill pipe, heavy-weight drill pipe, and drill collars, as discussed earlier in this chapter, are drill string components designed to transmit power from a drilling motor to a rotating drill bit, as well as to conduct drilling mud to the drill bit to flush drill cuttings up to the surface. Drill collars generally are used to place weight on the drill bit (and so typically, but not always, are placed on the lower portions of the drill string). Conventional drill pipe transmits torque and supports the tension of the drill string, while heavy-weight drill pipe serves as an intermediate drill string member. Although similar in terms of length (generally 30-31 feet), each of these drill string components differs in terms of wall thickness, with drill collars having the thickest walls and conventional drill pipe having the thinnest. In addition, as described earlier, drill pipe is joined using tool joints that are welded to each end, while drill collars are made from a single steel tube and are coupled together.

Responding U.S. producers that addressed the Commission’s question regarding this issue identified similarities and differences. Similarities include common coverage by API specifications; adjacent positions on the drill string; common or similar uses (broadly defined) in the drilling for oil and gas; similar lengths; and, in some cases, similar threads. Differences focused on weight, outside diameter, wall thickness, and specific application / function (noting that these differences were less pronounced when comparing heavy-weight drill pipe with drill collars). U.S. purchasers focused on the differences in specific applications (and corresponding differences in weight and wall thickness), but also noted that both drill pipe and drill collars are used on the drill string (albeit in different positions) for the common purpose of drilling for oil and gas.

**Manufacturing Facilities and Employees**

Petitioners stress the overlap in the manufacturing processes for drill pipe and drill collars\(^{52}\) and contend that the drill string members are generally made in the same facilities by the same employees.\(^{53}\) U.S. mills differ as to whether the “mother tubes” are produced with common equipment – Timken has produced pierced tubes for drill pipe and drill collars on the same equipment, while its Houston-based boring equipment is used for drill collars and other drill string members, but not drill pipe.\(^{54}\) Neither TMK

---

49 (...continued)
variety of OCTG items including drill pipe as well as casing or tubing. Respondents argued that imports of green tubes destined for OCTG had been classified and reported as green tube for drill pipe, potentially resulting in the over-reporting of imports of drill pipe green tubes. Respondents’ prehearing brief, p. 41 and conference transcript, p. 134 (Chen).

50 Petitioners’ prehearing brief, p. 29.
51 Respondents’ prehearing brief, p. 45.
52 Petitioners’ postconference brief, p. 9; Staff interview and plant tour at NOV Grant Prideco (January 13, 2010).
53 Petitioners’ postconference brief, p. 9; Conference transcript, p. 43 (Fields and Morris).
54 Timken Boring Specialties, or TBS, is a subsidiary of the Timken Co., based in Canton, OH. In the first quarter of 2008, Timken completed the acquisition of the assets of Boring Specialties, Inc. (formerly an independent producer of cold-bored drill collar blanks and **). Timken’s tube operations in Canton at one time supplied **;

(continued...
nor U.S. Steel produce drill collars. With respect to the largest processors, NOV Grant Prideco, VAM, and RDT produce drill pipe and drill collars; TSC produces conventional drill pipe but not drill collars; and Smith produces drill collars and heavy-weight drill pipe, but not conventional drill pipe.

U.S. processors pointed to the distinctions in their operations (several processors trepan, or drill, their own drill collars from bar, while purchasing green tubes for the production of drill pipe), but also pointed to some overlap in production materials55 and common processes (such as heat treating, machining, threading, hardbanding, and inspection). Most processors also noted the requirement for specialized welding equipment to join the drill pipe with the tool joints. U.S. purchasers generally focused on differences in raw materials (green tube versus bar), on end finishing (machining versus upsetting), and the welding of tool joints that is specific to drill pipe.

Interchangeability

Petitioners maintain that individual drill collars and finished drill pipe are not interchangeable with other individual drill collars or finished drill pipe, nor are individual sizes of heavy-weight drill pipe and the standard finished drill pipe.56 Petitioners stress that they can be treated as part of the same like product, however, as they are used in a complementary fashion for drilling.57

In their questionnaire responses, responding producers generally agreed that finished drill collars and drill pipe are not interchangeable, with the exception of heavy-weight drill pipe and drill collars in some drilling applications. U.S. purchasers generally made the same observations, while noting that drill pipe and drill collars “work together” or “are used in conjunction with each other.”

Customer and Producer Perceptions

In their questionnaire responses, responding producers noted that the uses and the products might differ, but that there were overlaps in terms of marketing (such as the use of the same personnel to market both finished drill pipe and drill collars) and in customer base (including customers that bid on rig packages requiring both drill pipe and drill collars in an approximately 9:1 ratio). U.S. purchasers, while continuing to note the difference in the specific functions of drill pipe and drill collars, generally agreed that marketing practices were similar and that drill pipe and drill collars were often sold together (although certain suppliers might carry only drill pipe or only drill collars).

Channels of Distribution

Table I-4 presents the respective channels of distribution for U.S. producers’ U.S. shipments of unfinished drill pipe, finished drill pipe, unfinished drill collars, and finished drill collars. Additional

54 (...continued)

however, counter-rotational drilling available at TBS ***. Staff interview and plant tour at TBS (October 29, 2010).

55 *** estimated that *** employs a welded tool joint and *** utilizes an integral joint. The latter may be produced from drill collar bar stock. Staff interview and plant tour at TSC (October 28, 2010). See also “Heavy Weight Tuff Tube” and “Drill Collars”, promotional material issued by RDT (heavy-weight drill pipe was manufactured from grade 4145 steel - drill collar material - in the 1960s, but as existing stocks diminished, the industry began using grade 1340 steel for heavy-weight drill pipe; drill collars are still manufactured from grade 4145-modified steel).

56 Petitioners’ postconference brief, p. 8.

57 Petitioners’ postconference brief, p. 9.
details regarding the channel structure of domestically produced and imported drill pipe and drill collars are presented in Part II of this report, *Conditions of Competition in the U.S. Market*.

As shown in table I-4, domestic producers sell drill pipe and drill collars largely to end users. In their questionnaire responses, responding producers overwhelmingly reported that the channel structure for drill pipe and drill collars are “the same,” “one and the same,” or “identical.” U.S. purchasers generally agreed with the characterization of common channel structures, although they tended to emphasize the role of distributors to a greater degree than did U.S. producers.

**Table I-4**

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td><strong>Unfinished drill pipe:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Processors</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>End users</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Finished drill pipe:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>18.2</td>
<td>21.8</td>
</tr>
<tr>
<td>Processors</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>End users</td>
<td>81.8</td>
<td>78.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Unfinished drill collars:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Processors</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>End users</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>Finished drill collars</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>12.4</td>
<td>5.6</td>
</tr>
<tr>
<td>Processors</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>End users</td>
<td>87.1</td>
<td>93.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

1 ***.

Source: Compiled from data submitted in response to Commission questionnaires.
Price

Table I-5 presents average unit values for U.S. producers’ U.S. shipments of unfinished drill pipe, finished drill pipe, unfinished drill collars, and finished drill collars in the United States. Pricing practices and prices reported for domestically produced and imported drill pipe and drill collars in response to the Commission’s questionnaires are presented in Part V of this report, *Pricing and Related Information.*

Table I-5
Drill pipe and drill collars: Average unit values of U.S. producers’ U.S. shipments of drill pipe and drill collars, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. producers' U.S. shipments of unfinished drill pipe</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. producers' U.S. shipments of finished drill pipe</td>
<td>5,193</td>
<td>5,570</td>
</tr>
<tr>
<td>U.S. producers' U.S. shipments of unfinished drill collars</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. producers' U.S. shipments of finished drill collars</td>
<td>3,259</td>
<td>4,022</td>
</tr>
</tbody>
</table>

1 Net value, f.o.b. U.S. point of shipment.
2 ***.

Source: Compiled from data submitted in response to Commission questionnaires.

As shown in table I-5, the average unit values for finished drill pipe exceeded those for finished drill collars in every quarter. In their questionnaire responses, responding producers sometimes focused on price per piece (by which measure the much thicker-walled drill collars are actually more costly). On a per-ton basis, however, U.S. producers noted that drill pipe was more expensive than drill collars, identifying such factors as the direct tie-in with drill collars to the cost of raw materials, the more commodity-like nature of drill collars, and the use of drill collar prices to acquire orders for standard-weight drill pipe. However, several of these factors were also noted with respect to heavy-weight drill pipe. U.S. purchasers observed that drill pipe is typically priced per foot, while drill collars by piece. Like producers, U.S. purchasers typically viewed drill collars as more expensive, however, this was attributable to the substantially greater weight on a per-foot or a per-piece basis.
Premium Drill Pipe

Petitioners contend that premium pipe constitutes a separate like product from drill pipe. Petitioners estimate that premium drill pipe accounts for roughly 15 percent of the total U.S. market for drill products. Petitioners contend that while premium drill pipe and drill pipe overlap, particularly in physical characteristics, key differences exist; including premium connections allowing increased torque, as well as faster and more reliable connections. Petitioners also maintain that API drill pipe cannot provide adequate performance under certain demanding types of drilling, such as ultra-extended reach wells of 10,000 to 15,000 meters, and is thus not interchangeable with premium drill pipe. Petitioners further argue that the location of many of these types of drilling that require premium drill pipe means that U.S.-produced premium drill pipe is typically exported rather than sold domestically. Petitioners note that premium drill pipe, in many cases under patent, can only be manufactured by several producers in the world, none of which are located in China. Lastly, petitioners contend that premium drill pipe sells for significantly more than drill pipe.

Respondents argue that premium pipe is part of a continuum of drill pipe and that it is not a separate like product. Respondents contend that premium pipe accounts for more than 15 percent of the total U.S. market for drill products, with estimates ranging from 25 to 40 percent. Respondents assert that there are only insignificant differences between API standard drill pipe and premium drill pipe, principally proprietary thread design on tool joints and mechanical properties, and that there is no clear dividing line between premium and API standard drill pipe.

Physical Characteristics and Uses

Petitioners contend that premium drill pipe is a finished drill pipe with a special chemical composition or threadline which is specifically designed for a unique drilling environment, in which API-grade pipe would not suffice. Petitioners also maintain that premium drill pipe may be used because of government regulations or because the operator wants to minimize risks. Respondents argue that the physical characteristics of premium drill pipe and other drill pipe are practically indistinguishable, with only subtle differences in yield strength, steel chemistry, and tolerances. Respondents point out that API standards provide for a minimum yield strength, and contend that there is no significant gap between those for API standard drill pipe and premium drill pipe. In addition, the actual yield strengths overlap from grade to grade, and different yield strengths can be obtained from green tubes with identical chemistries. Respondents also contend that tolerances as provided by testing does not provide for a clear dividing line. Respondents concede that premium pipe differs from API standard drill pipe in terms of proprietary or patented thread design on the tool joints, but state that the presence of these threads does not prohibit the use of premium drill pipe from being used on the same drill string as API standard drill pipe.

---

58 Petitioners’ prehearing brief, p. 29.
59 Hearing transcript, p. 33 (Fields).
60 Petitioners’ comments regarding draft questionnaires, pp. 11-12.
61 Respondents’ prehearing brief, p. 45, and hearing transcript, p. 196 (Leibowitz).
62 Respondents’ prehearing brief, p. 45, and hearing transcript, p. 196 (Leibowitz).
63 Petitioners’ prehearing brief, p. 23.
64 ***’s questionnaire response, part V, p. 50.
maintain that premium drill pipe and API standard drill pipe have identical uses, to drill for oil and gas, although there are specific uses where drillers typically use premium drill pipe.\textsuperscript{65}

In their questionnaire responses, responding U.S. producers typically indicated that there was a commonality between premium and non-premium drill pipe in terms of appearance, shape, size, and broad uses. However, U.S. producers also indicated that premium drill pipe can outperform an API-specified drill pipe. Accordingly, high-risk drilling utilizes premium drill pipe for extreme reach drilling projects, high pressure or temperature wells, critical sweet or sour environments, and deep water drilling environments. U.S. purchasers generally identified similar applications for premium drill pipe.

**Manufacturing Facilities and Employees**

Petitioners and respondents maintain that premium drill pipe and other drill pipe are largely made in the same way, depending on the requirements for the premium product.\textsuperscript{66} In their questionnaire responses, responding U.S. producers generally agreed that premium drill pipe and non-premium drill pipe use the same overall manufacturing processes, although specific additional steps may be required for premium pipe. U.S. purchaser responses were sparse, but generally similar in indicating a commonality in production processes.

**Interchangeability**

Petitioners maintain that premium drill pipe are not interchangeable with other drill pipe.\textsuperscript{67} Petitioners maintain that there are differences in the chemistries, heat treatment process, mechanical properties, constructions, designs and process validation to assure that a premium pipe will meet the specific requirements as designed.\textsuperscript{68} One petitioner contends that, because of its higher quality, a premium drill pipe typically can substitute for API-specified drill pipe but not the other way around.\textsuperscript{69} Respondents argue that there is full interchangeability from premium drill pipe to API standard drill pipe, as premium drill pipe can be used in every application in which API standard drill pipe is used. Respondents further contend that API standard drill pipe can be used in the same applications as premium drill pipe, but drillers chose not to do so because of durability and potential liability issues.\textsuperscript{70}

In their questionnaire responses, responding U.S. producers generally agreed that premium drill pipe and non-premium drill pipe are not interchangeable. U.S. purchasers tended to hold similar views regarding the limitations to interchangeability between premium and non-premium drill pipe, although several noted that one-way interchangeability was possible.

---

\textsuperscript{65} Respondents’ prehearing brief, pp. 45-50.

\textsuperscript{66} ***’s questionnaire response, part V, p. 51, Petitioners’ prehearing brief, p. 27, and Respondents’ prehearing brief, p. 50.

\textsuperscript{67} Petitioners’ prehearing brief, p. 25.

\textsuperscript{68} ***’s questionnaire response, part V, p. 51.

\textsuperscript{69} ***’s questionnaire response, part V, p. 49.

\textsuperscript{70} Respondents’ prehearing brief, pp. 50-51.
Customer and Producer Perceptions

Both petitioners and respondents contend that premium drill pipe is perceived to be of a higher quality, but respondents argue that this does not provide a clear dividing line. The responding U.S. producers generally agree that premium drill pipe is perceived as a more technically advanced product or an upgrade to the API grade non-premium drill pipe. U.S. purchasers focused on higher performance and quality, with some noting that premium drill pipe would only be used when required by drilling conditions.

Channels of Distribution

Table I-6 presents the respective channels of distribution for U.S. producers’ U.S. shipments of finished drill pipe (other than premium drill pipe) and premium drill pipe. As shown previously in table I-4, domestic producers sell unfinished drill pipe *** to processors, and unfinished drill collars mostly to processors with the remaining divided among distributors and end users. In contrast, finished drill pipe other than premium, as shown in table I-6, is sold mostly to end users with almost all of the remaining sold to distributors. Similarly, although to a less extent, premium drill pipe is sold to end users with the remaining share to distributors.

Table I-6
Drill pipe: Channels of distribution for U.S. producers’ U.S. shipments of finished drill pipe (other than premium drill pipe) and premium drill pipe, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th></th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
</tr>
</thead>
</table>

Price

Table I-7 presents average unit values for U.S. producers’ U.S. shipments of finished drill pipe (other than premium drill pipe) and premium drill pipe in the United States from various sources. Pricing practices and prices reported for domestically produced and imported drill pipe and drill collars in response to the Commission’s questionnaires are presented in Part V of this report, Pricing and Related Information.

Table I-7
Drill pipe: Average unit values of U.S. producers’ U.S. shipments of drill pipe (other than premium drill pipe) and premium drill pipe, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th></th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
<th>*</th>
</tr>
</thead>
</table>

As shown in table I-5 and table I-7, the average unit values for premium drill pipe exceeded those for finished drill pipe (other than premium drill pipe) and both finished and unfinished drill collars in every quarter. The differential between premium drill pipe and unfinished drill pipe was even greater than the differential between finished drill pipe (other than premium drill pipe) and unfinished drill pipe.

---

71 Petitioners’ prehearing brief, p. 26 and Respondents’ prehearing brief, p. 51.
72 *** reported shipments of unfinished drill collars to processors, while *** reported shipments equally divided between distributors and end users.
INTERMEDIATE PRODUCTS

As discussed above, unfinished (or “green” if not heat-treated) drill pipe is a precursor to finished drill pipe. Therefore, in addressing whether unfinished drill pipe and finished drill pipe constitute a single domestic like product, the Commission may apply its semi-finished product analysis. In its preliminary views, the Commission noted that, “because green tubes and finished drill pipe are articles at different stages of processing, with green tubes being upstream products that are further processed into downstream finished drill pipe, use of the semi-finished product analysis is more appropriate than application of the Commission’s six factor analysis.”

Uses

“Green tube” is a term that can apply to unfinished, non-heat-treated tube bodies for casing and tubing or for drill pipe. From the perspective of at least two leading processors, the green tube used in their operations is dedicated to the production of finished drill pipe. VAM Drilling, for example states that “(b)y controlling quality at all stages of product manufacture, from the seamless green tube to finished drill pipe and drillstem components, VAM Drilling ensures a superior product.” Similarly, Grant Prideco (prior to its merger with NOV) indicated that it “controlled each facet of the drill pipe process,” manufacturing

---

73 Commerce defined the scope of these investigations to include unfinished drill pipe (including drill pipe green tubes, which are tubes meeting the following description: seamless tubes with an outer diameter of less than or equal to 6 5/8 inches (168.28 millimeters), containing between 0.16 and 0.75 percent molybdenum, and containing between 0.75 and 1.45 percent chromium). Drill Pipe from the People’s Republic of China: Final Determination of Sales at Less Than Fair Value and Critical Circumstances, 76 FR 1966, January 11, 2011. This definition captures *** of the unfinished drill pipe reported by TMK, *** reported by U.S. Steel, and *** reported by Timken. Specifically, ***. See e-mail correspondence from *** dated January 14, 2011, and e-mail correspondence from *** dated January 14 and 18, 2011.

74 Under this analysis, the Commission examines (1) whether the upstream article is dedicated to the production of the downstream article or has independent uses; (2) whether there are perceived to be separate markets for the upstream and downstream articles; (3) differences in the physical characteristics and functions of the upstream and downstream articles; (4) differences in the costs or value of the vertically differentiated articles; and (5) the significance and extent of the processes used to transform the upstream into the downstream articles.

75 Drill Pipe and Drill Collars from China, USITC Publication 4127, March 2010, p. 17.

76 See, e.g., INSTRUCTION BOOKLET: GENERAL INFORMATION, INSTRUCTIONS, AND DEFINITIONS FOR COMMISSION QUESTIONNAIRES, Certain Oil Country Tubular Goods from China, Investigation Nos. 701-TA-463 and 731-TA-1159 (Final), p. 5 (green tubes identified as one example of unfinished casing and tubing); INSTRUCTION BOOKLET: GENERAL INFORMATION, INSTRUCTIONS, AND DEFINITIONS FOR COMMISSION QUESTIONNAIRES, Drill Pipe / Drill Collars from China, Investigation Nos. 701-TA-474 and 731-TA-1176 (Final), p. 5 (green tubes identified as one example of unfinished drill pipe and/or drill collars).

77 While not commonplace, terms such as “green drill pipe” or “green drill pipe tubes” have been employed. See, e.g., Drilling Contractor: Capital Wirelines (September/October 2001), p. 4 (in which the International Association of Drilling Contractors cites a letter by Grant Prideco, joined by IADC and several drilling contractors, which uses those terms on four occasions).

(through Voest-Alpine Tubulars) “the green tube (drill pipe tube that has not been heat-treated or processed), the tool joint, and complete the finishing and welding operations.”

As discussed above, NOV Grant Prideco and VAM focus on the green tubes that they source outside of the United States. Three U.S. mills produce unfinished drill pipe domestically: TMK and U.S. Steel, both of which also produce casing and tubing, and Timken, which does not. TMK distinguishes between drill pipe, casing, tubing, and coupling stock, indicating on its website that “(s)emifinished drill pipe is available in carbon and alloy grades. Our seamless drill pipe can be ordered as green tube or as upset and heat-treated to API 5D grades.” According to Timken, ***. U.S. Steel’s online product catalogue identifies drill pipe as a distinct entry, although U.S. Steel officials have testified in previous proceedings as to interchangeability of green tube (as a general term), prior to heat-treatment and upsetting.

Responding U.S. producers that addressed the Commission’s question regarding whether the upstream article is dedicated to the production of the downstream article categorically indicated that both green tube and unfinished drill collars are dedicated to the production of finished drill pipe and drill collars and identified no other commercial application during the period for which data were collected. U.S. purchasers provided similar observations.

**Markets**

As shown previously in table I-4, unfinished drill pipe in its green stage is sold exclusively to the processors that provide heat treatment, upsetting, and tool joining. The finished drill pipe, in turn, is sold by the processors largely to end users.

Responding U.S. producers that addressed the Commission’s question regarding whether there are perceived to be separate markets for the upstream and downstream articles generally indicated that markets - defined more broadly than distribution channels - were the same. Producers that focused on the customer

---

79 Grant Prideco, Form 10-K for the year ended December 31, 2007, pp. 1-2 (found at Petition, exhibit 3). The company went on to note that “[W]e are able to meet our customers’ demanding product specifications, particularly with respect to the green drill pipe tubes with body wall thickness, wall uniformity, and other features that exceed minimum API standards and are not readily available from third-party mills.” Ibid.

80 Certain Oil Country Tubular Goods from China, Investigation No. 701-TA-463 (Final), USITC Publication 4124, January 2010, table III-1.


82 Staff interview and plant tour at Timken (August 10, 2010).

83 U.S. Steel, Tubular Products Drill Pipe Search, found at http://www.uss.com/corp/tubular/scripts/drillsearch.asp, retrieved January 22, 2010. Because the information in this listing includes end finish (upset ends) and grades, it is not certain that it pertains to unfinished drill pipe in its green stage.

84 See generally Respondents’ Postconference Brief, exhibit 9. In a more recent interview, Staff asked U.S. Steel personnel if they were able to readily identify the company’s unfinished drill pipe. U.S. Steel personnel indicated that ***. Staff interview and plant tour at U.S. Steel / Lorain (August 11, 2010).

85 *** noted, however, that it is possible to use unfinished drill pipe to produce casing or tubing.

86 In this regard, the marketing of both unfinished and finished drill pipe differs from that of casing and tubing (whether unfinished or finished) and coupling stock, which are sold almost exclusively to distributors. Certain Oil Country Tubular Goods from China, Investigation No. 701-TA-463 (Final), USITC Publication 4124, January 2010, table II-1. See also conference transcript, pp. 36 (Schagrin) and 99 (Ramsey) (TMK relies upon different personnel for green tubes, casing and tubing; announced price increases by TMK for casing and tubing do not cover drill pipe green tube).
base for unfinished and finished drill pipe, however, reiterated that the former is sold to processors and the latter is sold (directly or indirectly) to end users such as drilling contractors. Purchasers largely share this view, generally reporting that they purchase only finished drill pipe or drill collars, although some end users “may specify the type and source of unfinished product,” according to ***.

**Characteristics and Functions**

As discussed above, unfinished drill pipe in its green stage is produced to the chemistry and dimensional specifications that permit processors to heat treat, upset, and join the tube body with the tool joint that is characteristic of finished drill pipe. Prior to these operations, however, unfinished drill pipe cannot be connected to other drill pipes and thus cannot function as a component of a drill string for use in oil and gas drilling.

Responding U.S. producers that addressed the Commission’s question regarding whether there are differences in the physical characteristics and functions of the upstream and downstream articles emphasized both similarities and differences. Similarities included the steel chemistry and certain physical characteristics such as length. Differences for drill pipe included heat treating, end finishing, and the presence of the tool joint; drill collar differences, however, were less pronounced, and generally involved certain exterior machining and the addition of threaded connectors. U.S. purchasers focused on the lack of connectors on unfinished drill pipe in its green stage and on unfinished drill collars, and generally observed that, in the absence of such connectors, downhole use was precluded.

**Value**

Unfinished drill pipe in its green stage is produced by seamless pipe mills, primarily from billet, while finished drill pipe is produced almost entirely from unfinished drill pipe. As shown in table I-5, the average unit values of U.S. mill shipments of unfinished drill pipe in its green stage were approximately *** the average unit values of U.S. processor shipments of finished drill pipe. As noted at the staff conference, the tool joint represents a not insubstantial portion of the production cost of finished drill pipe.87

Responding U.S. producers that addressed the Commission’s question regarding whether there are differences in the costs or value of the vertically differentiated articles used such terms as “substantial,” “significant,” and “a lot.” Producers that attempted to quantify the relative value indicated that finished drill pipe more than doubles in value relative to unfinished drill pipe in its green stage, with lower estimates for heavy-weight drill pipe by ***. In contrast, both *** indicated that unfinished drill collars constitute the large majority of the value of finished drill collars (*** percent, according to ***).88 U.S. purchasers were generally unable to address this issue; those that did generally concurred in the assessment that a not insubstantial amount of value is added through the processing stages, although attempts to quantify this value were widely divergent.

---

87 Heavy-weight drill pipe can be produced from drill collar material, such as bar stock (conference transcript, p. 55, Williamson) or the drill collar itself (conference transcript, p. 106, Morris). However, the share of drill pipe that is not produced from green tubes is believed to be very small. Conference transcript, pp. 106 (Parks) and 107 (Morris).

88 According to one witness, “(t)he tool joint constitutes about 30 percent of the final cost of completed drill pipe.” Conference transcript, p. 134 (Garvey).

89 ***.
Transformation Processes

As discussed previously, the tube body of drill pipe is formed from round or square solid steel billets in seamless pipe mills. These mills use either rotary piercing or hot extrusion to form a central cavity in the billets, then roll the hollow shell with either a fixed plug or a continuous mandrel inside the shell to reduce the wall thickness and thereby increase the length. Finally, they roll the shell to size in a sizing or stretch-reducing mill.

U.S. processors typically acquire unfinished drill pipe at its green stage, then finish the product through a series of value-added operations. The processors heat the ends of the tube body, then insert them into a forging press or upsetter, compressing and thickening the walls at the end of the tube body to form internal or external upsets. The length of the tube body is next heat treated by one of several possible methods and prepared for welding. Processors then weld separately manufactured tool joints to each end of the tube body by rotational friction or friction welding. The drill pipe undergoes additional heat treatment using a polymer as the quenching agent so that it cools gradually, followed by additional machining and inspection.

Responding U.S. producers that addressed the Commission’s question regarding the significance and extent of the processes used to transform the upstream into the downstream articles generally described an extensive process for transforming unfinished drill pipe in its green stage into finished drill pipe. As summarized by the processors, these processes include upsetting/forging; end prep; heat treatment; pipe straightening; inspection; and tool joint welding (followed by additional operations involving the now-attached tool joint and the weld zone). In contrast, the processing of drill collar blanks, following drilling or trepanning, primarily involves machining and threading, processes characterized as “straightforward” by the processors. U.S. purchasers capable of responding to this question focused on drill pipe and discussed the multiple production stages that cumulatively resulted in a substantially transformed product, summarized succinctly as follows: “Finished goods incorporate most of the value-added manufacturing process, whereas unfinished goods are nearly at the raw material cost stage.”

---

90 The President of VAM Drilling USA estimated that it may engage in as many as 18 separate operations while finishing drill pipe. Conference transcript, p. 15 (Fields).

PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

U.S. MARKET CHARACTERISTICS

Overview

Drill pipe and drill collars are key tools used in drilling operations (particularly for the extraction of oil or natural gas). They are sold in unfinished and finished forms, and are also sold new as well as used or refurbished. Conventional finished drill pipe is available in four API grades and a variety of premium (often proprietary) specifications, while heavy-weight drill pipe is available in both spiral and non-spiral patterns. Drill collars are available in a range of standard weights and diameters.

Regional Availability

Firms were asked to list the geographic regions of the United States in which they sell drill pipe. Seven of 11 U.S. producers reported that they served a nationwide market, while the other 4 producers all reported selling to the Central Southwest, as well as one or more other regions. For drill collars, four of seven U.S. producers reported selling nationwide, and three sold only in certain regions. Unlike U.S. producers, only two of 23 importers reported selling nationwide. Seventeen importers of drill pipe from China reported the regions to which they sold; all sold to the Central Southwest, seven sold to the Mountain region, five sold to the Pacific Coast, four sold to the Midwest, three sold to the Northeast and Southeast, and two sold to other regions.1 Most of these (12) also imported drill collar. Importers of drill pipe and drill collars from other countries reported a similar pattern, with all selling to the Central Southwest, and a subset selling to each of the other regions.

Lead Times

All but one U.S. producer reported selling all or the majority of its drill pipe or drill collars produced-to-order. About half of importers reported selling the majority of their drill pipe and drill collars from U.S. inventory, and about half reported selling mostly produced-to-order.2 Table II-1 presents the average and range of lead times for finished drill pipe from both producers and importers, as well as reporting the names of the firms reporting the shortest and longest delivery times. Table II-2 presents lead times for unfinished drill pipe and finished and unfinished drill collars. Average reported lead times for produced-to-order products generally decreased markedly from 2007 to 2009, and generally increased moderately from 2009 to the first half of 2010. Lead times tend to be longer for finished drill pipe than drill collar and for finished product than for unfinished product. There were large firm-to-firm differences in lead times for produced-to-order products.

---

1 ***.
2 Only one importer reported any 2009 sales from overseas inventory, and it reported that such sales were only *** percent of total import sales of drill pipe or drill collars.
Table II-1
Drill pipe and drill collars: U.S. producers' and importers' lead times for U.S. shipments of finished drill pipe and drill collars, 2007-09, and January-June 2010

<table>
<thead>
<tr>
<th>Product/source</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Jan.-June 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finished drill pipe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>225</td>
<td>147</td>
<td>80</td>
<td>91</td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>12</td>
<td>30</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>130</td>
<td>129</td>
<td>84</td>
<td>96</td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>Finished drill collars</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>147</td>
<td>115</td>
<td>73</td>
<td>53</td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Produced-to-order</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(average)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>From U.S. inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(range)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

Note.--Importers' times from inventories are those from U.S. inventories, not overseas inventories; few importers reported lead times from overseas inventories.

Source: Compiled from data submitted in response to Commission questionnaires.
Petitioners reported that all purchasers are sold product on a first-come-first-serve basis to both large and small customers.\(^3\) Respondents reported that while larger purchasers tend to pre-order based on their future needs, smaller purchasers typically do not order far in advance of their needs either because they cannot predict their needs or are less able/willing to provide an advance deposit required for orders with non-cancellation clauses.\(^4\) Instead, smaller purchasers typically purchase closer to their actual drilling time frame. Consistent with this framework, respondents contend that during peak demand periods smaller purchasers can face particularly high prices and difficulty obtaining product.\(^5\)

### Channels of Distribution

Table II-3 summarizes data on channels of distribution. All U.S. producers’ U.S. shipments of unfinished drill pipe were to processors. Unfinished drill collars are produced domestically by ***.\(^6\) In 2007 and 2008 *** of U.S. producers’ U.S. shipments of unfinished drill collars were to processors, however, in 2009, *** of shipments of unfinished drill collars were to distributors and end users, and in January-June 2010 *** of such shipments were to distributors and end users. The majority of U.S. producers’ U.S. shipments of finished drill pipe and drill collars were to end users, including drilling contractors.

---

\(^3\) Hearing transcript, p. 35 (Fields).

\(^4\) Hearing transcript, pp. 286-287 (Garvey).

\(^5\) Hearing transcript, pp. 236-237 (Lesco).

\(^6\) ***.
Table II-3
Drill pipe and drill collars: U.S. producers’ and importers’ U.S. shipments of drill pipe and drill collars, by sources and channels of distribution, 2007-09, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Period</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>Jan.-June 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Share of reported shipments (percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. producers’ U.S. shipments of unfinished drill pipe to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Importers’ U.S. shipments of unfinished drill pipe from China to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Importers’ U.S. shipments of unfinished drill pipe from all other countries to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>U.S. producers’ U.S. shipments of unfinished drill collars to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>U.S. producers’ U.S. shipments of finished drill pipe to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>18.2</td>
<td>21.8</td>
<td>21.7</td>
<td>19.9</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>81.8</td>
<td>78.2</td>
<td>78.3</td>
<td>80.1</td>
<td></td>
</tr>
<tr>
<td>Importers’ U.S. shipments of finished drill pipe from China to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Importers’ U.S. shipments of finished drill pipe from all other countries to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>U.S. producers’ U.S. shipments of finished drill collars to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>12.4</td>
<td>5.6</td>
<td>6.8</td>
<td>19.9</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>0.5</td>
<td>0.6</td>
<td>0.8</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>87.1</td>
<td>93.8</td>
<td>92.4</td>
<td>80.1</td>
<td></td>
</tr>
<tr>
<td>Importers’ U.S. shipments of finished drill collars from China to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>46.3</td>
<td>37.7</td>
<td>52.2</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>8.9</td>
<td>12.8</td>
<td>1.9</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>44.8</td>
<td>49.5</td>
<td>45.7</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Importers’ U.S. shipments of finished drill collars from all other countries to:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Processors</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>End users</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

1 Reported imports of unfinished drill collars were limited and sporadic.

Note.—Channels for which no sales were reported are not included.

Source: Compiled from data submitted in response to Commission questionnaires.
U.S. importers of Chinese product did not have any commercial shipments of any unfinished product in 2009 or in the first six months of 2010; they did ship unfinished drill pipe to distributors and processors in 2007 and 2008. U.S. importers of Chinese finished drill pipe shipped a majority of such imports to distributors during 2007-08, but a majority to end users in 2009 and the first six months of 2010. U.S. importers of Chinese finished drill collars shipped over *** percent to both distributors and end users in both 2007 and 2009, almost half to end users in 2008, and over *** percent to end users in the first half of 2010, selling the remainder to distributors.

Producers and importers were asked to report their top-five purchasers of drill pipe and of drill collar. Producers and importers listed 76 purchasers of drill pipe; *** of which (*** were listed by both a U.S. producer and an importer. *** additional top-five customers for drill pipe reported by U.S. producers (*** are importers of drill pipe from China. Producers and importers listed 46 top-five customers for drill collars since 2007; *** of which, (***) were listed by both a U.S. producer and an importer. *** additional top-five customer for drill collars reported by U.S. producers (***) is an importer of drill collars from China.

The Commission issued questionnaires to 115 firms believed to purchase drill pipe and/or drill collars. Thirty-five purchasers (18 drilling contractors, 8 distributors, 3 equipment rental companies, 2 oil/gas companies, 2 pipe processors/manufacturers, (***) and 1 drill pipe producer) returned completed questionnaires. The eight distributors reported selling to a variety of types of customers, including other distributors, equipment rental companies, contractors, and oil/gas companies. Twenty-nine firms reported purchase data for drill pipe and drill collars for January 2007-June 2010; their purchases totaled $1.9 billion. Specifically, 14 firms purchased U.S.-produced drill pipe and/or drill collars and imports from China; 10 firms purchased U.S.-produced products but not import from China; 4 purchased imports from China but not U.S.-produced products; and 1 purchased only nonsubject product. Of the 29 firms that reported the types of product they purchased, 2 purchased unfinished drill pipe; 2 purchased unfinished drill collars; 26 purchased new finished drill pipe; 22 purchased new finished drill collars; 1 purchased used drill pipe; and 1 purchased used/refurbished drill collars. Purchasers were requested to answer separately for premium and non-premium drill pipe if their responses to any question differed for premium and non-premium drill pipe, but none did so.

Eighteen purchasers reported the number of rigs they owned or operated. Of these, 16 were contractors, 1 a distributor (***), and 1 an equipment rental company (***)). Based on the number of rigs they reported owning or operating in 2010, the largest firms were ***; none of the remaining purchasers reported operating more than 100 rigs. Based on purchase value, the largest purchasers were ***. None of the remaining purchasers reported purchasing more that $**. Of these largest purchasers, four purchased Chinese product (**), while ***. The firms purchasing the largest amount of Chinese imports (by value) were ***. No other purchaser reported purchasing more than $*** worth of Chinese product.

---

7 This includes two purchasers *** that imported product directly from China. ***.
8 Four firms reported purchasing imports from nonsubject countries in addition to their purchases of domestic and/or imported Chinese products. Also, one firm stated that it did not know the origin of the products it purchased.
9 The questionnaire defined premium drill pipe as “Generally considered to be drill pipe whose tube body, tool joint, and/or tool joint connections surpass API specifications.” See Part I of the staff report for the petitioners’ definition of premium pipe.
SUPPLY AND DEMAND CONSIDERATIONS

Supply

U.S. Producers

The supply response of U.S. producers to changes in price depends on such factors as the level of excess capacity, the availability of alternate markets, inventory levels, and the ability to shift production to the manufacture of other products. The evidence indicates that U.S. producers of unfinished drill pipe and unfinished drill collars currently have the ability to respond to changes in prices with large changes in quantity, due primarily to the existence of large amounts of unused capacity, as well as some production alternatives. The evidence also indicates that U.S. producers of finished drill pipe and finished drill collars currently have the ability to respond to changes in prices with large changes in quantity, due to primarily to the existence of unused capacity, as well as alternative markets, and inventories, which are ***.

Industry capacity

U.S. producers’ annual capacity utilization rates for unfinished drill pipe increased from 48.3 percent in 2007 to 54.6 percent in 2008 before falling to 4.8 percent in 2009, and were 22.0 percent in the first half of 2010. U.S. producers of unfinished drill collars reported capacity utilization rates for unfinished drill collars that decreased from *** percent in 2007 to *** percent in 2009, and were *** percent in the first half of 2010. U.S. producers’ capacity utilization rates for finished drill pipe decreased from 79.8 percent in 2007 to 38.8 percent in 2009, and were 39.5 percent in the first half of 2010. U.S. producers’ capacity utilization rates for finished drill collars decreased from 69.2 percent in 2007 to 32.3 percent in 2009, and were 11.3 percent in the first half of 2010. These data indicate that U.S. producers currently have substantial ability to increase shipments.

Alternative markets

U.S. producers’ exports of unfinished drill pipe, as a share of their total shipments of unfinished drill pipe, decreased from *** percent in 2007 to *** percent in 2009, and were *** percent in the first half of 2010. U.S. producers’ exports of unfinished drill collars, as a share of their total shipments of unfinished drill collars, *** during 2007-09, and were *** in the first half of 2010. U.S. producers’ exports of finished drill pipe, as a share of their total shipments of finished drill pipe, increased from 25.6 percent in 2007 to 35.7 percent in 2009, and were 37.1 percent in the first half of 2010. U.S. producers’ exports of finished drill collars, as a share of their total shipments of finished drill collars, increased from 19.0 percent in 2007 to 49.0 percent in 2009, and were 51.7 percent in the first half of 2010. These data indicate that U.S. producers of unfinished products are limited in their capability to divert shipments to or from alternative markets in response to price changes, whereas U.S. producers of finished drill pipe and drill collars have a greater capability to do so.

---

10 Short-run effects discussed in the supply and demand sections refer to changes that could occur within 12 months, unless otherwise indicated.
Inventory levels

U.S. producers’ ratio of end-of-period inventories of unfinished drill pipe to total shipments of unfinished drill pipe increased from *** percent in 2007 to *** percent in 2009, and were *** percent in January-June 2010. U.S. producers’ ratio of end-of-period inventories of unfinished drill collars to total shipments of unfinished drill collars decreased from *** percent in 2007 to *** percent in 2009, and were *** percent in January-June 2010. U.S. producers’ ratio of end-of-period inventories of finished drill pipe to total shipments of finished drill pipe increased from 5.8 percent in 2007 to 19.6 percent in 2009, and were 15.6 percent in January-June 2010. U.S. producers’ ratio of end-of-period inventories of finished drill collars to total shipments of finished drill collars increased from 29.3 percent in 2007 to 62.8 percent in 2009, and were 119.8 percent in January-June 2010. These data indicate that U.S. producers may have the ability to use inventories as a means of increasing shipments.

Production alternatives

*** U.S. producers of unfinished drill pipe, *** producers of unfinished drill collars, *** producers of finished drill pipe, and *** producers of finished drill collars reported that they use the same manufacturing equipment and the same workers used to make drill pipe and/or drill collars in the production of other products. Specifically, three U.S. producers reported producing seamless standard/line/pressure pipe, two reported producing casing/tubing/coupling stock, and two reported producing mechanical tubing. Other products cited included whipstocks, kellys, and drilling jars. The ability of some U.S. producers to shift production from drill pipe and drill collars to or from other products increases their supply responsiveness.

Subject Imports from China

The responsiveness of supply of imports from China to changes in price in the U.S. market is affected by such factors as capacity utilization rates and the availability of home markets and other export markets. Based on available information, producers of drill pipe and drill collars in China have the capability to respond to changes in demand with large changes in the quantity of shipments to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the ***. Respondents report that Chinese producers have very limited ability to produce premium drill pipe.11 To the extent that demand is for premium product that is not available from China, Chinese supply will be unresponsive to changes in U.S. prices.

Industry capacity

Chinese producers of unfinished and finished drill pipe and drill collars reported increasing capacity and declining capacity utilization from 2007-09. The reported capacity utilization rate for unfinished drill pipe producers in China decreased from *** percent in 2007 to *** percent 2009; it is projected to be *** percent in 2010 and *** percent in 2011. The reported capacity utilization rate for unfinished drill collar producers in China decreased from *** percent in 2007 to *** percent in 2009; it is projected to be *** percent in 2010 and in 2011. The reported capacity utilization rate for finished drill pipe producers in China decreased from 98.2 percent in 2007 to 43.4 percent 2009; it is projected to be 47.1 percent in 2010 and 52.9 percent in 2011. The capacity utilization rate for reporting finished drill collar producers in China decreased from *** percent in 2007 to *** percent in 2009; it is projected to be *** percent in 2010 and *** percent in 2011.

11 Hearing transcript, pp. 220, 227, and 239-240 (Garvey, Malashevich, and Murphy).
**Alternative markets**

Available data indicate that producers of finished drill pipe and drill collars in China may have some ability to divert shipments to or from alternative markets in response to changes in the price of drill pipe and drill collars. The share of shipments by producers of finished drill pipe in China that went to the United States increased irregularly from 17.0 percent in 2007 to 18.1 percent in 2009; it is projected to be 14.8 percent in 2010 and 13.2 percent in 2011. The share of such shipments to export markets other than the United States increased from 25.3 in 2007 to 37.8 percent in 2009; it is projected to be 36.7 percent in 2010 and 35.7 percent in 2011. The share of such shipments to the Chinese home market decreased from 57.7 percent in 2007 to 44.1 percent in 2009; it is projected to be 48.5 percent in 2010 and 51.1 percent in 2011.

The share of shipments by producers of finished drill collars in China that went to the United States decreased irregularly from *** percent in 2007 to *** percent in 2009; it is projected to be *** percent in 2010 and *** percent in 2011. The share of such shipments to export markets other than the United States increased from *** percent in 2007 to *** percent in 2009; it is projected to be *** percent in 2010 and *** percent in 2011. The share of such shipments to the Chinese home market decreased from *** percent in 2007 to *** percent in 2009; it is projected to be *** percent in 2010 and *** percent in 2011.

Shipments of unfinished drill pipe by producers in China were primarily internal consumption/transfers, as well as some shipments to the Chinese home market; there were no reported export shipments except for a small amount in 2007.12 There were only limited and sporadic U.S. imports of unfinished drill collars from China.

**Inventory levels**

Inventories of responding producers of finished drill pipe in China, as a share of total shipments of finished drill pipe, increased from 10.7 percent in 2007 to 27.1 percent in 2009; they are projected to be 18.7 percent in 2010 and 10.8 percent in 2011. Inventories of responding producers of finished drill collars in China, as a share of total shipments of finished drill collars, decreased from *** percent in 2007 to *** percent in 2009; they are projected to be *** percent in 2010 and *** percent 2011.

Inventories of responding producers of unfinished drill pipe in China, as a share of total shipments of unfinished drill pipe, increased from *** percent in 2007 to *** percent in 2009; they are projected to be *** percent in 2010 and *** percent in 2011. Inventories of responding producers of unfinished drill collars in China, as a share of total shipments of unfinished drill collars, increased from *** percent in 2008 to *** percent in 2009; they are projected to be *** percent in 2010 and *** percent 2011.

---

12 Because these data include ***, export shares are understated.
Production alternatives

Producers of unfinished drill pipe typically can also produce OCTG and/or seamless standard, line and pressure pipe on the same equipment used to produce unfinished drill pipe. These products are currently subject to antidumping/countervailing duty orders in the United States.\(^\text{13}\)

Nonsubject Imports

Nonsubject country imports of unfinished drill pipe, as a share of the total quantity of apparent U.S. consumption of unfinished drill pipe, increased from *** percent in 2007 to *** percent in 2009 and were *** percent in the first half of 2010. Nonsubject imports of finished drill pipe, as a share of the total quantity of apparent U.S. consumption of finished drill pipe, decreased from *** percent in 2007 to *** percent in 2009 and were *** percent in the first half of 2010. There were limited and sporadic imports of unfinished drill collars during January 2007-June 2010. Imports from nonsubject sources of finished drill collars, as a share of the quantity of apparent U.S. consumption of finished drill collars, decreased from *** percent in 2007 to *** percent in 2009 and accounted for *** percent in the first half of 2010.

Supply Constraints/Disruptions

Twenty-seven of 35 responding purchasers reported that no suppliers refused, declined, or had been unable to supply drill pipe or drill collars since 2007. Seven of the remaining eight purchasers including such large purchasers as *** reported that domestic suppliers were unable to supply product. Five of the seven responding purchasers reported that the referenced transactions did not differ in any factors other than delivery, one reported that the Chinese price was much lower, and one reported that the specifications differed.

\(^\text{14}\)

\(^\text{15}\)

Purchasers were asked how long before receipt of their deliveries they typically inform their suppliers of their needs with responses ranging from 1 day to 1 year. The average length for the eight largest purchasers was 144 days with only one of these, ***, reporting times less than 120 days. The remaining 24 purchaser responses averaged 90 days with 10 reporting times of less than 60 days. Purchasers were asked to report the shortest time between their order and delivery. Responses ranged


\(^\text{14}\) ***.

\(^\text{15}\) Answers to additional questions have been used where appropriate to clarify the purchasers’ responses.
from 0 to 120 days, with the eight largest purchasers reporting an average of 46 days. The remaining 23 purchasers reporting an average of 33 days. These responses suggest that smaller purchasers, even when quoted the same lead time as their larger competitors, can face additional supply management challenges during periods of long and lengthening delivery times.

One U.S. producer of drill pipe, ***, reported that it faced periodic supply constraints in 2008, during which it limited volume to its customers. Downhole, an importer and distributor of drill pipe and drill collars, reported that in 2007 and 2008 its customers experienced backlogs from U.S. producers ranging from 12 to 18 months. *** other importers of drill pipe and drill collars from China also reported experiencing long lead times and late deliveries during certain periods, but did not identify the suppliers involved. Weatherford, an importer and purchaser of drill pipe and drill collars, reported that although ***.

Later in the period, however, the nature of the delivery issues changed, and at least one producer, VAM, had difficulty getting payment for its production. Command ordered drill pipe from VAM from April 2008 through September 2008. However, when the products were produced Command was reluctant to take possession of and pay for this material. VAM, after a number of attempts to get payment in 2009, initiated legal proceedings in 2010 to compel payment.

Used Products/Exchanges

Only one U.S. producer of finished drill pipe and drill collars (*** and three U.S. importers (*** sell used or refurbished drill pipe and drill collars. U.S. producer RDT reported that used products are sold to small shallow land drilling companies that account for approximately 15 percent of the U.S. market. U.S. producer VAM reported that drilling contractors can transfer used products from idled rigs to active rigs rather than buying new product. U.S. producer RDT also stated that some of the

---

16 ***.
17 Purchasers with responses such as “now” or “stock” have been assumed to receive product in one day.
18 Petitioners report that they do not discriminate against smaller purchasers in lead times from order to delivery. Hearing transcript, p. 34 (Fields). The respondents report that smaller purchasers are quoted longer lead times than larger purchasers. Hearing transcript, p. 225 (Mostoway).
19 Hearing transcript, p. 235 (Lesco).
20 Weatherford’s postconference brief, p. 3.
21 Petitioners’ prehearing brief, Exhibit 11.
22 In its views in the preliminary phase of these investigations, the Commission stated “We also intend to seek additional information concerning the market for used/refurbished products, as both of these are factors that are relevant to our analysis of this issue.” Drill Pipe and Drill Collars from China, Invs. Nos. 701-TA-474 and 731-TA-1176 (Preliminary), USITC Publication 4127, March 2010, p. 27, footnote 200.
23 U.S. producers, TSC and VAM, reported that they only sell new products. Conference transcript, p. 66 (Parks, Brand). Importers Command and Downhole reported that they have, at times, imported used products from Europe, Mexico, the Middle East, and South America. Conference transcript, pp. 188-189 (Lesco, Garvey).
24 Importer ***.
25 Conference transcript, pp. 65-66 (Morris). This producer also noted that offshore drilling companies do not use used products. Ibid. Importer Command reported that there are limited applications for used drill pipe and drill collars. Conference transcript, p. 176 (Garvey).
26 Conference transcript, p. 67 (Fields).
large manufacturers of drill pipe and drill collars face difficulty in selling used products because they are not necessarily API certified.  

Command reported that when a customer wants to swap material, Command appraises the value of the material, then will swap the customers inventories dollar for dollar for material Command sells.  

Importer Downhole reported that it supplied customers with used products between 2006 and 2008 when these customers “could not afford to pay current list prices {from} the major manufacturers” or could not “get delivery.”  

It reported that it imported in the first quarter of 2006 because domestic producers were quoting 18 month deliveries and it had no more good quality used pipe to sell.  

Although only 2 purchasers reported purchasing used product, 15 of 32 responding purchasers reported selling used drill pipe other than as part of an exchange.  Firms reported that the value of used drill pipe depends on its age and amount of wear, as well as availability of new drill pipe, and that items that are not repairable may be sold as scrap. Several firms reported that they sell used drill pipe at auction.  

Only two of 28 responding purchasers reported attempting to trade new and/or used drill pipe as part of an exchange. One of these firms reported that the attempt was unsuccessful. The other, ***, reported that in *** it traded excess inventory of *** for ***; and that ***

Purchasers’ Inventories

Table II-4 provides purchasers’ end-of-year inventories for 2007-09 and at the end of June 2010. No purchasers reported end-of-period inventories of product from China for unfinished drill pipe or drill collars. Most end-of-period inventories of finished drill pipe was domestically produced, whereas the leading source for finished drill collars varied by period.

Demand

The very limited substitutes for drill pipe and drill collars and the fact that drill pipe and drill collars represent a low share of overall drilling costs, as discussed below, indicate that the demand for these products is likely to be price inelastic. Demand for drill pipe and drill collars is largely determined by the health of the overall economy and drilling activity which, in turn, is driven by oil and natural gas prices. U.S. real GDP growth at seasonally adjusted annual rates is shown in figure II-1.
Table II-4
Drill pipe and drill collars: U.S. purchasers’ end-of-period inventories of drill pipe and drill collars, by sources, 2007-09, and January-June 2010

<table>
<thead>
<tr>
<th>Source</th>
<th>Period</th>
<th>Quantity (in feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Unfinished drill pipe (new)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>5,098,853</td>
<td>21,481,448</td>
</tr>
<tr>
<td>Other</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unfinished drill collars (new)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>4,057,260</td>
<td>12,778,887</td>
</tr>
<tr>
<td>Finished drill pipe (new)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>5,414,743</td>
<td>6,509,678</td>
</tr>
<tr>
<td>China</td>
<td>947,965</td>
<td>553,486</td>
</tr>
<tr>
<td>Finished drill collars (new)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>129,390</td>
<td>446,695</td>
</tr>
<tr>
<td>China</td>
<td>579,291</td>
<td>633,457</td>
</tr>
<tr>
<td>Used drill pipe¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All sources</td>
<td>6,684,546</td>
<td>6,364,311</td>
</tr>
<tr>
<td>Used drill collars¹</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All sources</td>
<td>409,992</td>
<td>391,533</td>
</tr>
</tbody>
</table>

¹ Inventories of used drill pipe and drill collars include any product that is available for use, including that currently being used for drilling. Such product typically would have been purchased new by the reporting purchaser.

Note.--This table does not present sources for which no product was reported.

Source: Compiled from data submitted in response to Commission questionnaires.

Figure II-1
Real GDP growth, percentage change from previous period, by quarters, January 2007-September 2010

Source: Bureau of Economic Analysis.
U.S. demand for drill pipe and drill collars depends on the number of active rigs drilling for oil and natural gas in the United States and the footage being drilled. As shown in figure II-2 (footage drilled), drilling activity generally increased between January 2007 and October 2008, after which it declined sharply until May 2009, then returned to close to 2007 levels by 2010.

**Figure II-2**

Drilling activity: Footage drilled, January 2007- November 2010

---

Active rigs may be supplied with new drill pipe and drill collars or with used drill pipe and drill collars transferred from inactive rigs. Drill pipe and drill collars on active rigs need to be replaced every 2-3 years for normal use or 1-2 years when used in more harsher environments. Petitioners reported that drilling operators can predict replacement needs well in advance of when they are needed.

The number of active rigs is a broad indicator of demand for oil and natural gas. Figure II-3 presents monthly average crude oil prices, oil and total rig counts, and figure II-4 presents monthly average natural gas prices, natural gas and total rig counts. In general, data in these figures reflect variable though steady growth until approximately mid-2008, after which they experienced substantial declines until early- to mid-2009, depending on the demand indicator. Most of these indicators have shown varying levels of recovery in 2010.

---


Figure II-3
Crude oil prices, U.S. oil rig count, and total rig count, monthly averages, January 2007-November/December 2010

Figure II-4
Natural gas prices, U.S. gas rig count, and total rig count, monthly averages, January 2007-November/December 2010

Source: Energy Information Administration.
The following tabulation shows the ratio of purchasers’ reported number of rigs actively drilling to the number of rigs owned or serviced at the end of December 2007-09 and June 2010. The ratio declined by 25 percentage points from December 2007-09 and then recovered somewhat by June 2010.

<table>
<thead>
<tr>
<th>December 2007</th>
<th>December 2008</th>
<th>December 2009</th>
<th>June 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>75.6</td>
<td>71.3</td>
<td>50.3</td>
<td>58.7</td>
</tr>
</tbody>
</table>

When asked how the overall U.S. demand for drill pipe and drill collars has changed since January 2007, most responding U.S. producers (12 of 13), importers (21 of 24), and purchasers (30 of 33) reported that demand has decreased or fluctuated. One purchaser noted an increase in demand from 2007 to 2008, no change between 2008 and 2009, and a decrease between 2009 and 2010. Most responding U.S. producers (9 of 10) and importers (14 of 17) also reported that demand outside the United States has decreased or fluctuated. Fifteen of 21 purchasers indicated that demand outside the United States fluctuated or did not change, 5 indicated that it increased, and 2 indicated that it decreased.

Apparent U.S. consumption of unfinished drill pipe decreased by *** percent from 2007 to 2009, and was *** percent lower in January-June 2010 than in January-June 2009. Apparent U.S. consumption of finished drill pipe decreased by *** percent from 2007 to 2009, and was *** percent lower in January-June 2010 than in January-June 2009. Apparent U.S. consumption of unfinished drill collars decreased by *** percent from 2007 to 2009, and was *** percent lower in January-June 2010 than in January-June 2009. Apparent U.S. consumption of finished drill collars decreased by *** percent from 2007 to 2009, and was *** percent lower in January-June 2010 than in January-June 2009.

Most of the increase in drilling that occurring in 2010 was horizontal drilling in shale. This horizontal drilling is mainly for gas, however, some of these shale regions provide oil as well as gas.33 Figure II-5 shows the increase in horizontal drilling relative to vertical drilling, and figure II-6 shows inland and offshore drilling.

In spite of low natural gas prices in the United States, “the number of rigs drilling for gas has remained ‘broadly stable’ thanks to continued activity on shale plays.”34 Increased drilling for natural gas in U.S. shale formations has been reported to increase demand for steel tubular products.35

In vertical drilling, the drill collars act as a weight to increase the effectiveness of the drill bit at the bottom of the drill string. In horizontal drilling, however, a weight at the end of the drill string does not increase the effectiveness of the drill bit, thus few drill collars are used in horizontal drilling, reducing demand for drill collars relative to drill pipe.

Offshore drilling typically is a small share of U.S. drilling, ranging from a high of 5 percent of all drilling rigs in January 2007 to only 3 percent in August 2009. Subsequently, offshore drilling began to recover, but following the explosion of Transocean’s Deepwater Horizon oil drilling rig off the coast of Louisiana, the number of offshore rigs plummeted from 53 to 12 by July 2010. By the end of 2010, the number of offshore rigs had increased to 24, but accounted for only 1 percent of active U.S. rigs.

---

33 Respondents’ posthearing brief, exhibit 15.
Figure II-5
North-American rig count, by type, quarterly averages, January 2007-December 2010

Note.– Data are shown for North America.

Source: Baker Hughes.

Figure II-6
U.S. rig count, by type, quarterly averages, January 2007-December 2010

Source: Baker Hughes.
Premium Drill Pipe

Premium drill pipe as a share of U.S. apparent drill pipe consumption increased from *** percent, by weight, in 2007 to *** percent in 2008, and *** percent 2009, and was *** percent of consumption in January-June 2010. Both parties agree that pipe used in more difficult environments tends to wear out more quickly than that used under normal conditions.36 Accordingly, the increased use of premium drill pipe suggests increased drilling in environments with faster replacement rates.

Respondents report that demand for premium pipe is increasing because of its use in high technology, horizontal, and ultra-deep drilling, for both oil and gas applications, with about half of the drilling in shale requiring premium pipe.37 Respondents also report that Chinese producers do not make premium product that is used in deeper wells and for more difficult horizontal wells.38 Respondents expect that premium product will account for nearly all “near-term” demand growth in the U.S. market.39

Petitioners, however, report a number of changes that reduce demand for drill pipe and drill collars. They report that as the price of oil increases relative to gas prices, rigs have been shifted from drilling gas wells to drilling oil wells. They contend that oil wells are more likely to be conventional wells than gas wells. As a result, rigs used in oil wells both require less drill pipe than the same number of rigs used in gas wells, while the drill pipe used in oil wells lasts longer.40 Petitioners report that increased efficiency and improved technology have increased the speed at which drilling rigs can “hit a pay zone” reducing the number of rigs needed again reducing the amount of drill pipe and drill collar needed.41

Business Cycle

The majority of U.S. producers, importers, and purchasers reported that the business cycle for drill pipe and drill collars is based on oil and gas prices and depends heavily on oil and gas rig counts. As shown in figure II-7, oil and gas drilling in the United States has experienced sharp upward and downward adjustments with some frequency over the past two decades, but has increased overall in the last 10 years.

36 Hearing transcript, pp. 128, 219 (Barnes and Garvey).
37 Hearing transcript, pp. 246-247 (Garvey).
38 Hearing transcript, pp. 217-222 (Garvey).
39 Hearing transcript, p. 227 (Malashevich).
40 Hearing transcript, pp. 127-128 (Barnes).
41 Hearing transcript, p. 125 (Parks).
Nearly all (31 of 33) responding purchasers indicated that the price of oil and gas affects demand for drill pipe and drill collars. Only two firms specified the lag time between changes in oil and gas prices and demand for drill pipe and drill collars; one purchaser reported it was six months.\(^4\) Thirteen of 32 purchasers indicated that the business cycle for drill pipe or drill collars differs from that of the overall economy. These firms indicated that oil and gas prices, as well as the number of rigs, affect demand. One firm also mentioned the regulatory environment and access to oil and gas leases.

**Substitute Products**

Twelve of 13 responding U.S. producers, 28 of 29 responding importers, and 33 of 34 responding purchasers reported no substitutes for drill pipe or drill collar.\(^4\) One producer (*** \() report\) that premium upset oil country tubing, aluminum based drill pipe, and casing could be used as substitutes for drill pipe. According to ***, “Drilling with casing is a fairly new tool, and we are seeing some substitutions occurring, particularly when the total cost of drilling wells is lower.” One importer also reported that casing was a substitute for drill pipe. The sole purchaser reporting a substitute indicated that coil tubing would affect the price of drill pipe and drill collar in the future.

**Cost Share**

Firms were asked to estimate drill pipe or drill collar’s share of the cost of downstream products. Firms reported that such costs generally ranged from 0.4 to 14 percent for drill pipe and from 0.05 to

---

\(^{4}\) A second company ***, reported that drill pipe used for drill risers may have a lag time of up to *** years. A drilling riser “is a large diameter pipe or series of concentric pipes which connects the drilling string on a seafloor oil well to a surface drilling platform.” [http://www.helium.com/items/1836922-what-is-an-oil-riser](http://www.helium.com/items/1836922-what-is-an-oil-riser), retrieved 1/11/11.

\(^{4}\) In addition, one U.S. producer reported that drill pipe was a substitute for drill collars.
5 percent for drill collars. However, petitioners report that the drill stem, which includes drill pipe and drill collar as well as other equipment, is the most expensive part after the drilling rig, explaining why purchasers are concerned about the price of drill pipe and drill collars.

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported drill pipe or drill collar depends on such factors as relative prices, range of product available, quality (e.g., grade standards, reliability of supply, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, payment terms, product services, etc.). Based on available information, staff believes that there is a moderate to high degree of substitutability between U.S. and Chinese non-premium product. However, for that share of the market that requires premium product, Chinese product would have low substitutability for U.S. product because U.S. imports of drill pipe from China are concentrated in API, rather than proprietary grades.

Factors Affecting Purchasing Decisions

Table II-5 summarizes purchasers’ responses concerning the top three factors in their purchase decisions. Quality, followed by availability and price, were the most frequently reported first factors, price was the most frequently reported second factor, and availability was the most frequently reported third factor.

Table II-5
Drill pipe and drill collars: Ranking of factors used in purchasing decisions as reported by U.S. purchasers

<table>
<thead>
<tr>
<th>Factor</th>
<th>Number of firms reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number one factor</td>
</tr>
<tr>
<td>Quality</td>
<td>16</td>
</tr>
<tr>
<td>Price</td>
<td>6</td>
</tr>
<tr>
<td>Availability</td>
<td>7</td>
</tr>
<tr>
<td>Delivery/lead times</td>
<td>1</td>
</tr>
<tr>
<td>Contract/manufacturer¹</td>
<td>3</td>
</tr>
<tr>
<td>Technical support</td>
<td>0</td>
</tr>
<tr>
<td>Other²</td>
<td>2</td>
</tr>
</tbody>
</table>

¹ Includes proven track record and traditional supplier.
² Other factors include proprietary connectors and ability to manufacture to our specifications for the first factor, and product range, credit, and willingness to establish pricing agreements for the second factor.

Source: Compiled from data submitted in response to Commission questionnaires.
Purchasers were asked to rate the importance of 17 factors in their purchasing decisions (table II-6). Factors reported by at least half of the 30 responding purchasers to be very important were availability, price, and quality meeting API standard (27 purchasers); product consistency and reliability of supply (26); delivery time and technical support (25); quality exceeds API standard (18); proprietary grades (16); and discounts offered and product range (15). Most purchasers (20) reported that the option to swap was not important, and 15 reported that packaging was not important.

Table II-6
Drill pipe and drill collars: Importance of purchasing factors, as reported by U.S. purchasers

<table>
<thead>
<tr>
<th>Factor</th>
<th>Number of firms reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very important</td>
</tr>
<tr>
<td>Availability</td>
<td>27</td>
</tr>
<tr>
<td>Delivery terms</td>
<td>13</td>
</tr>
<tr>
<td>Delivery time</td>
<td>25</td>
</tr>
<tr>
<td>Discounts offered</td>
<td>15</td>
</tr>
<tr>
<td>Extension of credit</td>
<td>6</td>
</tr>
<tr>
<td>Minimum quantity requirements</td>
<td>12</td>
</tr>
<tr>
<td>Option to swap used product</td>
<td>3</td>
</tr>
<tr>
<td>Packaging</td>
<td>5</td>
</tr>
<tr>
<td>Price</td>
<td>27</td>
</tr>
<tr>
<td>Product consistency</td>
<td>26</td>
</tr>
<tr>
<td>Product range</td>
<td>15</td>
</tr>
<tr>
<td>Proprietary grades</td>
<td>16</td>
</tr>
<tr>
<td>Quality meets API standard</td>
<td>27</td>
</tr>
<tr>
<td>Quality exceeds API standard</td>
<td>18</td>
</tr>
<tr>
<td>Reliability of supply</td>
<td>26</td>
</tr>
<tr>
<td>Technical support/service</td>
<td>25</td>
</tr>
<tr>
<td>U.S. transportation costs</td>
<td>5</td>
</tr>
</tbody>
</table>

Note.—In addition, one firm, ***, identified “warranty of product” as “very important,” and another firm, ***, identified “proven track record” as “very important.”

Source: Compiled from data submitted in response to Commission questionnaires.

Thirty-four of 35 responding purchasers reported that they required all product they purchased to meet API standards\(^{47}\) and 16 purchasers also require other certification or qualification. Seventeen of 35 purchasers require that product they purchase surpass API standards, although 3 of the 16 require this higher standard on only a portion of their purchases (ranging from 10 to 60 percent). Although some

\(^{47}\) The one purchaser that did not require product to meet API standards, ***, reported that product had to meet its standards.
purchasers reported that it took up to 365 days to qualify a new supplier, most firms (16 of 26) reported
that it took 30 or fewer days.48 Eight of 33 responding purchasers indicated that a supplier failed to
certify or qualify their drill pipe or drill collars. Of these, four reported problems with U.S. firms
including TSC, NOV Grant Prideco, Smith, and Timken, and one reported problems with Chinese
product.49

When asked what factors purchasers consider in determining quality of drill pipe or drill collars,
the most common response was meeting API standards (reported by 15 purchasers). Other factors
mentioned include quality and mechanical properties of the steel; precision and control in the
manufacturing process including accurate drawing; process of welding on tool joints; adequate heat
treatment facilities; modern equipment and good quality control system; mill and test certification;
marking system; and traceability. Firms also cited low inspection rejection rate, meeting all required
performance criteria, product consistency, history of performance, delivery history, meeting customer
needs, ready for service on delivery, U.S. or North American production, and longevity of the drill pipe.

As shown in the tabulation below, about two-thirds (22 of 33) of purchasers always or usually
make purchasing decisions for drill pipe or drill collars based on the producer and about half (16 of 34)
always or usually make purchasing decisions based on the country of origin.

<table>
<thead>
<tr>
<th>Purchaser/customer decision</th>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchaser makes purchase decisions based on producer</td>
<td>15</td>
<td>7</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Purchaser’s customers make purchase decisions based producer</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Purchaser makes purchase decisions based on country of origin</td>
<td>8</td>
<td>8</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Purchaser’s customers make purchase decisions based on country of origin</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

Twenty-five of 34 responding purchasers indicated that they or their customers will specifically
order drill pipe and drill collar from one country in particular over other possible sources of supply.
Seventeen purchasers listed the United States as the preferred country, five listed China, and one each
listed Austria, Germany, and India. When asked if certain grades, forms, or types of drill pipe and drill
collars were available from a single source, 9 of 35 purchasers reported “yes;” specifically, several
purchasers mentioned certain proprietary grades, including some produced by NOV Grant Prideco.
About half of responding purchasers reported that buying U.S.-produced product is an important factor in
their purchases of drill pipe and/or drill collars. While only one of these purchasers reported that U.S.-
produced product is required by law or regulation, six reported that some or all of their customers require
U.S.-produced product, and ten reported that U.S.-produced product is required for other reasons such as
company specifications and brand preferences.

When asked how often they purchase the lowest priced drill pipe and drill collar, 4 of 35
purchasers responded “always,” 11 responded “usually,” 15 responded “sometimes,” and 5 responded
“never.” Reasons cited by purchasers for buying from one source although a comparable product was
available at a lower price from another source included availability, delivery, quality, long-term contracts,
lead times, and reliability of supply.

48 One purchaser reported it took “years” to qualify a supplier.
49 In addition, three purchasers did not identify the firms or source country of producers that failed to qualify.
Comparisons of Domestic Product and Imports

In order to determine whether U.S.-produced drill pipe and drill collars can generally be used in the same applications as imports from China, producers and importers were asked whether the products can “always,” “frequently,” “sometimes,” or “never” be used interchangeably. Eight of 12 U.S. producers reported that U.S. drill pipe and that from China are always interchangeable (5 of 8 for drill collars), as shown in table II-7. A majority of the importers that compared drill pipe and drill collars from China with those from the United States reported that they are always or frequently interchangeable. Sixteen of 20 purchasers reported U.S. drill pipe and drill collars and those from China are always interchangeable.

Table II-7
Drill pipe and drill collars: Perceived degree of interchangeability of product produced in the United States and in other countries, by country pairs

<table>
<thead>
<tr>
<th>Country comparison</th>
<th>U.S. producers</th>
<th>U.S. importers</th>
<th>U.S. purchasers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>F</td>
<td>S</td>
</tr>
<tr>
<td>Drill pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. vs. China</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>U.S. vs. other</td>
<td>8</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>China vs. other</td>
<td>7</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Drill collars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. vs. China</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>U.S. vs. other</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>China vs. other</td>
<td>4</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Note.—“A” = Always, “F” = Frequently, “S” = Sometimes, and “N” = Never.

Source: Compiled from data submitted in response to Commission questionnaires.

As indicated in table II-8, three-quarters of responding U.S. producers reported that differences other than price between U.S.-produced drill pipe and subject imports are sometimes or never a significant factor in their sales, while one-quarter reported that they are always or frequently a significant factor. A majority of responding importers reported that differences other than price between U.S.-produced drill pipe and subject imports are sometimes or never a significant factor in their sales. A majority of producers reported that differences other than price between U.S.-produced drill collars and subject imports are sometimes a significant factor in their sales, while a majority of importers reported that such differences are at least sometimes a significant factor. Unlike most producers and or importers, approximately one-half of purchasers reported that factors other than price were always a significant factor for drill pipe and drill collars.
Table II-8

Drill pipe and drill collars: Differences other than price between products from different sources

<table>
<thead>
<tr>
<th>Country comparison</th>
<th>U.S. producers</th>
<th>U.S. importers</th>
<th>U.S. purchasers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>F</td>
<td>S</td>
</tr>
<tr>
<td>Drill pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. vs. China</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>U.S. vs. other</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>China vs. other</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Drill collars</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. vs. China</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>U.S. vs. other</td>
<td>1</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>China vs. other</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

1 Producers, importers, and purchasers were asked if differences other than price between drill pipe and drill collars produced in the United States and in other countries are a significant factor in their firms' sales/purchases of drill pipe and drill collars.

Note.–“A” = Always, “F” = Frequently, “S” = Sometimes, and “N” = Never.

Source: Compiled from data submitted in response to Commission questionnaires.

Two U.S. producers reported that the quality of imports from China was previously perceived to be inferior but that it now meets API specifications. Another producer reported that U.S. producers have superior technical support. Two importers reported that their lead times for imported product are shorter than those offered by U.S. producers.

Only 2 of 32 responding purchasers reported changing suppliers after agreeing to purchase from another supplier. Nine of the 29 responding purchasers reported that the time between informing suppliers of needs and delivery differed for U.S. and imported product; however, these firms reported that U.S. delivery times may be longer or shorter than delivery times for imports.

Purchasers were asked to compare U.S.-produced drill pipe and drill collars and those produced in China and nonsubject countries with respect to 17 different attributes (table II-9). Of the 18 firms that compared U.S. and Chinese drill pipe, a majority reported that the products were comparable for all factors except for delivery time, price, and technical support/service. Of the 12 firms that compared U.S. and Chinese drill collars, a majority reported that the products were comparable for all factors except for availability, delivery terms, delivery time, discounts offered, price, and technical support/service. Only three firms compared U.S.-produced drill pipe to drill pipe from countries other than China; two of these firms generally rated the products as comparable and one generally rated the nonsubject country product as superior. Two firms compared U.S.-produced drill collars to that from France and India, and generally rated the products as comparable.
Table II-9
Drill pipe and drill collars: Comparisons between U.S.-produced and Chinese products, as reported by U.S. purchasers

<table>
<thead>
<tr>
<th>Factor</th>
<th>Number of firms reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Drill pipe U.S. vs. China</td>
</tr>
<tr>
<td></td>
<td>S</td>
</tr>
<tr>
<td>Availability</td>
<td>6</td>
</tr>
<tr>
<td>Delivery terms</td>
<td>6</td>
</tr>
<tr>
<td>Delivery time</td>
<td>6</td>
</tr>
<tr>
<td>Discounts offered</td>
<td>3</td>
</tr>
<tr>
<td>Extension of credit</td>
<td>3</td>
</tr>
<tr>
<td>Price</td>
<td>3</td>
</tr>
<tr>
<td>Minimum quantity requirements</td>
<td>2</td>
</tr>
<tr>
<td>Packaging</td>
<td>3</td>
</tr>
<tr>
<td>Product consistency</td>
<td>7</td>
</tr>
<tr>
<td>Quality meets API standards</td>
<td>7</td>
</tr>
<tr>
<td>Quality exceeds API standards</td>
<td>6</td>
</tr>
<tr>
<td>Proprietary grades</td>
<td>5</td>
</tr>
<tr>
<td>Product range</td>
<td>4</td>
</tr>
<tr>
<td>Reliability of supply</td>
<td>7</td>
</tr>
<tr>
<td>Technical support/service</td>
<td>8</td>
</tr>
<tr>
<td>Option to swap</td>
<td>1</td>
</tr>
<tr>
<td>U.S. transportation costs</td>
<td>5</td>
</tr>
</tbody>
</table>

1 A rating of superior means that the price is generally lower. For example, if a firm reports “U.S. superior,” this means that it rates the U.S. price generally lower than the other country’s price.

Note.—S = Superior, C = Comparable, I = Inferior.

Source: Compiled from data submitted in response to Commission questionnaires.

Twenty-one of 34 responding purchasers reported that U.S.-produced drill pipe and drill collars always meet minimum quality specifications, and 11 reported that they usually did (table II-10). Eleven of 27 responding purchasers reported that the Chinese drill pipe and drill collars always met minimum quality specifications, and 10 reported that they usually did. Purchasers reported that products from the following nontarget countries always or usually met minimum quality specifications: Argentina, Austria, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Singapore, and Ukraine.
Table II-10
Drill pipe and drill collar: Ability to meet minimum quality specifications, by source

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of firms reporting¹</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Always</td>
</tr>
<tr>
<td>United States</td>
<td>21</td>
</tr>
<tr>
<td>China</td>
<td>11</td>
</tr>
</tbody>
</table>

¹ Purchasers were asked how often domestically produced or imported drill pipe and drill collar meets minimum quality specifications for their own or their customers' uses.

Source: Compiled from responses to Commission questionnaires.

ELASTICITY ESTIMATES

This section discusses elasticity estimates. Parties were encouraged to comment on these estimates in their prehearing or posthearing brief. No parties commented on these elasticity estimates.⁵⁰

U.S. Supply Elasticity⁵¹

The domestic supply elasticity for drill pipe and drill collars measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of drill pipe and drill collars. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers’ ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced drill pipe and drill collars. Analysis of these factors earlier indicates that the U.S. industry is likely to be able to greatly increase or decrease shipments to the U.S. market; an estimate in the range of 5 to 10 is suggested.

U.S. Demand Elasticity

The U.S. demand elasticity for drill pipe and drill collars measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of drill pipe and drill collars. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of the drill pipe and drill collars in the production of any downstream products. Based on the available information, the aggregate demand for drill pipe and drill collars is likely to be inelastic; a range of -0.25 to -0.5 is suggested.

---

⁵⁰ Petitioners submitted an economic study using the COMPAS model to estimate the effect on the U.S. drill pipe and drill collar industry “if Chinese product had not entered the U.S. market.” The results did not depend on elasticity estimates. Based on their assumptions, the petitioners’ study found that in 2009 domestic share would have been 12.3 percent higher, than their actual level. Petitioners’ posthearing brief Exhibit 8.

⁵¹ A supply function is not defined in the case of a non-competitive market.
Substitution Elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products. Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms, availability of product with add-ons, etc.). Based on available information, the elasticity of substitution between U.S.-produced non-premium drill pipe and all drill collars and imported products is likely to be in the range of 3 to 5 while substitution for premium drill pipe would be much lower.

---

52 The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.
### PART III: U.S. PRODUCERS’ PRODUCTION, SHIPMENTS, AND EMPLOYMENT

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the margin of dumping and subsidies was presented earlier in this report and information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V. Information on the other factors specified is presented in this section and/or Part VI and (except as noted) is based on the questionnaire responses of 13 firms that accounted for the vast majority of U.S. production of drill pipe and drill collars during 2009.

#### U.S. PRODUCERS

The Commission issued questionnaires to 38 companies identified as possible producers of drill pipe and/or drill collars. Fourteen producers responded to the Commission questionnaires, thirteen of which were able to provide useable data.\(^1\)\(^2\) Table III-1 presents a list of confirmed domestic producers of drill pipe and/or drill collars and each company’s position on the petition, production location(s), related and/or affiliated firms, and share of reported production of drill pipe and drill collars in 2009.\(^3\) As shown in the table below, firms reported producing either finished or unfinished product, but not both, and many, but not all, firms reported producing both drill pipe and drill collars.

As indicated in table III-1, four U.S. producers are related to foreign producers of drill pipe or drill collars, one of which is related to foreign producers in China. In addition, as discussed in greater detail below, two U.S. producers, ***, directly import the subject merchandise.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Position on petition</th>
<th>U.S. production location(s)</th>
<th>Related and/or affiliated firms</th>
<th>Share of production (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timken</td>
<td>***</td>
<td>Canton, OH Houston, TX</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>TMK</td>
<td>Support</td>
<td>Ambridge, PA Koppel, PA Downers Grove, IL</td>
<td>OAO TMK(^1)</td>
<td>***</td>
</tr>
<tr>
<td>U.S. Steel</td>
<td>***</td>
<td>Fairfield, AL Lorain, OH</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table III-1
Drill pipe and drill collars: U.S. producers, positions on the petition, U.S. production locations, related and/or affiliated firms, and shares of 2009 reported U.S. production

\(^1\) Five firms (***) reported that they had not produced drill pipe or drill collars since 2007.

\(^2\) ***.

\(^3\) V&M Star reported that it is in the process of constructing a new $650 million seamless pipe mill in Youngstown, OH. The new mill is expected to produce 350,000 tons of seamless pipe in the size range of 2 to 7 inches, beginning in the fourth quarter of 2011. Ten percent of the production is projected to be green tubes intended for domestic manufacturing of drill pipe at V&M Drilling in Houston, TX. *Certain Seamless Carbon and Alloy Steel Standard, Line, and Pressure Pipe from China, Inv. Nos. 701-TA-469 and 731-TA-1168 (Final)*, Hearing transcript, pp. 57-58 (James Herald, Managing Director, V&M North America). V&M reported ***. Letter from ***, November 5, 2010.

---

III-1
Table III-1--Continued
Drill pipe and drill collars: U.S. producers, positions on the petition, U.S. production locations, related and/or affiliated firms, and shares of 2009 reported U.S. production

<table>
<thead>
<tr>
<th>Firm</th>
<th>Position on petition</th>
<th>U.S. production location(s)</th>
<th>Related and/or affiliated firms</th>
<th>Share of production (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finished drill pipe</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charles Machine</td>
<td>***</td>
<td>Perry, OK</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>Drill Pipe International</td>
<td>***</td>
<td>New Hope, MN</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Grant Pridesco</td>
<td>***</td>
<td>Amelia, LA Navasota, TX</td>
<td>(2)</td>
<td>***</td>
</tr>
<tr>
<td>RDT Support</td>
<td>Support</td>
<td>Beasley, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Smith</td>
<td>***</td>
<td>Houston, TX</td>
<td>(2)</td>
<td>***</td>
</tr>
<tr>
<td>Superior</td>
<td>***</td>
<td>Houston, TX</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>Tejas</td>
<td>***</td>
<td>Houston, TX</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>TSC Support</td>
<td></td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>VAM Support</td>
<td>Support</td>
<td>Houston, TX</td>
<td>***4</td>
<td>***</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Unfinished drill collars</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunbelt</td>
<td>***</td>
<td>Houston, TX</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>Timken</td>
<td>***</td>
<td>Houston, TX</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Finished drill collars</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drill Pipe International</td>
<td></td>
<td>New Hope, MN</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Grant Pridesco</td>
<td>***</td>
<td>Amelia, LA Navasota, TX</td>
<td>(2)</td>
<td>***</td>
</tr>
<tr>
<td>RDT Support</td>
<td>Support</td>
<td>Beasley, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Reamco</td>
<td>***</td>
<td>Broussard, LA</td>
<td>None</td>
<td>***</td>
</tr>
<tr>
<td>Smith</td>
<td>***</td>
<td>Houston, TX</td>
<td>(2)</td>
<td>***</td>
</tr>
<tr>
<td>VAM Support</td>
<td>Support</td>
<td>Houston, TX</td>
<td>***4</td>
<td>***</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

1 ***
2 ***
3 ***
4 ***
5 ***
6 ***

Source: Compiled from data submitted in response to Commission questionnaires.
Table III-2 presents important drill pipe and drill collar industry events since 2007.

**Table III-2**
Drill pipe and drill collars: Important industry events, 2007-10

<table>
<thead>
<tr>
<th>Year</th>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Grant Prideco</td>
<td>*** 1</td>
</tr>
<tr>
<td>2007</td>
<td>Timken</td>
<td>*** 1</td>
</tr>
<tr>
<td>2007</td>
<td>Sunbelt</td>
<td>*** 1</td>
</tr>
<tr>
<td>2007</td>
<td>Grant Prideco</td>
<td>*** 1</td>
</tr>
<tr>
<td>2008</td>
<td>Superior</td>
<td>*** 1</td>
</tr>
<tr>
<td>2008</td>
<td>Drill Pipe International</td>
<td>*** 1</td>
</tr>
<tr>
<td>2008</td>
<td>Sunbelt</td>
<td>*** 1</td>
</tr>
<tr>
<td>2008</td>
<td>Evraz and TMK (Russia)</td>
<td><strong>Purchase:</strong> Evraz and TMK purchase IPSCO-Tubulars for $4 billion from Svenskt Stal AB. 2</td>
</tr>
<tr>
<td>2008</td>
<td>Timken</td>
<td><strong>Purchase:</strong> Acquisition of Boring Specialties Inc., Houston, TX, in March 2008 for about $70 million. 3</td>
</tr>
<tr>
<td>2008</td>
<td>Vallourec and Grant Prideco</td>
<td>Purchased: Vallourec purchases three tubular business from Grant Prideco for $800 million including: Atlas Bradford (OCTG connection technology), TCA (heat treatment), and Tube Alloy (production and service of down-hole accessories). 4</td>
</tr>
<tr>
<td>2008</td>
<td>NOV Grant Prideco</td>
<td><strong>Purchase:</strong> NOV purchases Houston-based Grant Prideco for $7.4 billion. 5</td>
</tr>
<tr>
<td>2008</td>
<td>TMK</td>
<td><strong>Expansion:</strong> TMK-IPSCO increases its production range for unfinished drill pipe at its Ambridge, PA, mill. 6</td>
</tr>
<tr>
<td>2008</td>
<td>NOV Grant Prideco</td>
<td>*** 1</td>
</tr>
<tr>
<td>2008</td>
<td>NOV and Schlumberger</td>
<td><strong>Joint venture:</strong> NOV and Schlumberger form joint venture in the manufacturing and technology development of wired drill string telemetry systems. 7</td>
</tr>
<tr>
<td>2008</td>
<td>VAM</td>
<td><strong>Production disrupted:</strong> Hurricane Ike disrupts operations of VAM’s Houston manufacturing facility for several days in September. 8</td>
</tr>
<tr>
<td>2009</td>
<td>Timken</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>RDT</td>
<td><strong>Expansion:</strong> Addition of a second weld line; remains idle. 9</td>
</tr>
<tr>
<td>2009</td>
<td>Charles Machine</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>Sunbelt</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>Smith</td>
<td><strong>Production curtailment:</strong> Due to low sales. 1</td>
</tr>
<tr>
<td>2009</td>
<td>TSC</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>U.S. Steel</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>TSC</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>Timken</td>
<td>*** 1</td>
</tr>
<tr>
<td>2009</td>
<td>U.S. Steel</td>
<td>U.S. Steel Voluntary Early Retirement Program affects 500 employees and saves $70 million companywide. 10</td>
</tr>
</tbody>
</table>

*Table continued on the next page.*
Table III-2--Continued
Drill pipe and drill collars: Important industry events, 2007-10

<table>
<thead>
<tr>
<th>Year</th>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>VAM</td>
<td><strong>Lay off:</strong> reductions in February, June, and November hours reduced to 32 per week, 3 weeks of unpaid furlough (office).</td>
</tr>
<tr>
<td>2009</td>
<td>VAM</td>
<td><strong>Purchase:</strong> VAM Drilling acquires DPAL FZCO, an established supplier of drill pipes, formerly owned by the Soconord Group. DPAL FZCO offers a large range of drill pipes to the oil &amp; gas industry in the Middle East.</td>
</tr>
<tr>
<td>2010</td>
<td>U.S. Steel</td>
<td>***</td>
</tr>
<tr>
<td>2010</td>
<td>RDT</td>
<td>***</td>
</tr>
<tr>
<td>2010</td>
<td>TMK</td>
<td>***</td>
</tr>
<tr>
<td>2010</td>
<td>Smith</td>
<td><strong>Acquisition:</strong> Smith merges with Schlumberger.</td>
</tr>
<tr>
<td>2010</td>
<td>TSC</td>
<td><strong>End of marketing agreement:</strong> On December 7, 2010, Schlumberger ends Smith’s marketing agreement with TSC.</td>
</tr>
</tbody>
</table>

---

Sources: Staff interviews and plant tours, corporate press releases, various articles, questionnaire responses, and conference transcript.

---

U.S. CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION

U.S. producers’ capacity, production, and capacity utilization data for unfinished drill pipe are presented in table III-3a. ***’s capacity growth was consistent with its capital expenditures. TMK also reported a major capital investment in early 2008 that increased its capacity and allowed it to produce

---

4 Although it was unable to provide useable data on unfinished drill pipe, *** reported that *** percent of its drill pipe production (*** tons in 2009) is sold as unfinished, and solely to ***.
unfinished drill pipe with an outside diameter of 5½ inches. This increase in capacity was offset by a reduction in allocated capacity by *** during 2007-09 due to ***. During the period for which data were collected, however, *** reported *** higher capacity utilization than did ***.

Table III-3a

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Capacity (short tons)¹</td>
<td>164,568</td>
<td>156,821</td>
</tr>
<tr>
<td>Production (short tons)</td>
<td>79,494</td>
<td>85,681</td>
</tr>
<tr>
<td>Capacity utilization (percent)</td>
<td>48.3</td>
<td>54.6</td>
</tr>
</tbody>
</table>

¹ ***.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producers’ capacity, production, and capacity utilization data for finished drill pipe are presented in table III-3b. Finished drill pipe capacity increased between 2007 and 2008 largely due to ***’s addition of a weld line and ***’s ramp-up of production of finished drill pipe. *** producers of finished drill pipe except *** reported lower production in 2009 than in 2008, with *** experiencing production declines of *** percent. While U.S. capacity utilization was lower in January-June 2010 compared with January-June 2009, U.S. producers *** reported increased capacity utilization and production. *** consistently reported *** capacity utilization of all responding producers of finished drill pipe. Indeed, in 2007, when *** were all producing at full capacity, *** reported having *** short tons of available capacity. All of the other U.S. processors combined reported only *** short tons of available capacity in that year.

---

5 Conference transcript, p. 27 (Ramsey).

6 *** capacity utilization ranged from a high of *** percent in 2008 to a low of *** percent in January-June 2009, while *** reported capacity utilization ranging from a high of *** percent in 2007 to a low of *** percent in 2009. *** reported capacity utilization ranging from a high of *** percent in 2008 to a low of *** percent in 2009.

7 *** reported production capacity ranging from a high of *** percent in 2008 to a low of *** percent in January-June 2010. *** stated that it used only *** percent of its production capacity (part of which was also used to produce drill collars). Email from ***, November 22, 2011.

8 ***’s bottleneck is its welding capacity. Although it took steps to address this bottleneck (as discussed in Part IV of this report), even the company’s heat-treating operations *** in 2007, before declining to *** percent in 2008 and to *** percent in 2009.
Table III-3b

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Capacity (short tons)¹</td>
<td>268,520</td>
<td>279,489</td>
</tr>
<tr>
<td>Production (short tons)</td>
<td>214,412</td>
<td>203,231</td>
</tr>
<tr>
<td>Capacity utilization (percent)</td>
<td>79.8</td>
<td>72.7</td>
</tr>
</tbody>
</table>

¹ ***.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producers’ capacity, production, and capacity utilization data for unfinished drill collars are presented in table III-3c.¹⁹ *** reported increasing production capacity in 2008 by adding capital equipment. In addition, Timken reported the acquisition of Boring Specialties, Inc. in March 2008. Production levels, however, declined *** beginning in 2008.¹⁰

Table III-3c

| * | * | * | * | * | * | * | *

U.S. producers’ capacity, production, and capacity utilization data for finished drill collars are presented in table III-3d. In 2007 *** reported capacity utilization above *** percent, while *** reported *** percent and *** percent, respectively. *** U.S. producers reported reduced capacity utilization between 2007 and 2009, and in January-June 2010 compared with January-June 2009.¹¹ The two largest U.S. producers of finished drill collars, *** reported production declines of approximately *** percent between 2007 and 2009 (declined of approximately *** short tons and *** short tons, respectively).

---

¹⁹ *** reported that it is ***. In addition, it reported that ***. *** reported that about *** percent its production of unfinished drill collars was under tolling arrangements. For further details see Part VI of this report.

¹⁰ Boring Specialties, Inc. historically ***. The merger with Timken offered an opportunity to bring material closer to the customer by effectively integrating bar production in Ohio with additional hole forming and related services in Texas. While the enterprise initially faced scepticism, particularly from ***, during the first three quarters of 2008 it ***. After the third quarter of 2008, however, ***. TBS officials identified a number of contributing factors for this observed trend: ***. Staff interview and plant tour at TBS, October 9, 2010.

¹¹ *** reported the lowest capacity utilization in each year, starting at *** percent in 2007 and declining to *** percent in 2009, although it reported the highest capacity utilization in January-June 2010, with *** percent. In contrast, *** reported the highest capacity utilization in 2007 (*** percent), but the lowest in January-June 2010 (*** percent).
### Table III-3d

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Capacity (short tons)(^1)</td>
<td>75,065</td>
<td>79,384</td>
</tr>
<tr>
<td>Production (short tons)</td>
<td>51,931</td>
<td>45,223</td>
</tr>
<tr>
<td>Capacity utilization (percent)</td>
<td>69.2</td>
<td>57.0</td>
</tr>
</tbody>
</table>

\(^1\): ***.

Source: Compiled from data submitted in response to Commission questionnaires.

### U.S. PRODUCERS’ SHIPMENTS

Data on U.S. producers’ shipments of unfinished drill pipe are presented in table III-4a. U.S. shipments declined by *** percent between 2007 and 2009, but were *** percent higher in January-June 2010 than in January-June 2009. While the decrease between 2007 and 2009 coincided with a decreased quantity of U.S. and export shipments of finished drill pipe of *** percent, the higher U.S. shipments of unfinished drill pipe in January-June 2010 compared with January-June 2009 is in contrast with stable overall shipments of finished drill pipe.

### Table III-4a

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Quantity (short tons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Export shipments</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total shipments</td>
<td>78,561</td>
<td>90,178</td>
</tr>
<tr>
<td>Value (1,000 dollars)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Export shipments</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total shipments</td>
<td>117,250</td>
<td>178,647</td>
</tr>
<tr>
<td>Unit value (per short ton)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Export shipments</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total shipments</td>
<td>$1,492</td>
<td>$1,981</td>
</tr>
</tbody>
</table>

Table continued on next page.
Table III-4a–Continued

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. shipments</strong></td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>Export shipments</strong></td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>Total shipments</strong></td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

1 Undefined.

Source: Compiled from data submitted in response to Commission questionnaires.

Data on U.S. producers’ shipments of finished drill pipe are presented in table III-4b.\textsuperscript{12} Between 2007 and 2009 the quantity of U.S. shipments declined by 51.4 percent (43.0 percent, by value), while exports declined by 21.1 percent (6.9 percent, by value). U.S. shipments were stable in January-June 2010 compared to January-June 2009, in contrast to a modest recovery in export shipments.\textsuperscript{13} After an increase between 2007 and 2008 (largely due to increases by ***), export shipments consistently accounted for slightly more than one-third of U.S. producers’ total shipments.\textsuperscript{14}

\textsuperscript{12} *** reported transfers to a related company, which accounted for less than *** percent of its total shipments during 2007-09. *** reported internal consumption (less than *** percent of total shipments of finished drill pipe) for use in ***. *** did not respond to Staff’s request to confirm its shipments, so its shipments (representing less than 0.01 percent of total U.S. producer’s shipments) were allocated to U.S. commercial shipments.

\textsuperscript{13} U.S. shipments of finished drill pipe exhibited a less pronounced decline than U.S. shipments of finished drill collars. Although multiple factors could contribute to this difference, one factor mentioned by several sources has been the need for 4” drill pipe (a size for which there are reportedly not substantial inventories on the ground) in the still-vibrant U.S. shale plays. Moreover, these shale plays, which usually involve horizontal drilling, do not generally use drill collars. Staff telephone interview with ***, September 10, 2010; Staff interview and plant tour at ***; Staff interview and plant tour at ***; Hearing transcript, p. 219 (Garvey).

\textsuperscript{14} *** reported exports greater than 25 percent of total shipments in every period for which data were collected (except ***). Of those firms *** reported the greatest share of exports to total shipments, ranging from *** percent in 2007 to *** percent in January-June 2010. *** accounted for the majority of reported higher export shipments in January-June 2010 compared to January-June 2009, while *** reported a slight decline.
### Table III-4b

**Finished drill pipe: U.S. producers’ shipments, by types, 2007-09, January-June 2009, and January-June 2010**

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td></td>
<td>U.S. shipments</td>
<td>Export shipments</td>
</tr>
<tr>
<td>Quantity (short tons)</td>
<td>159,622</td>
<td>54,981</td>
</tr>
<tr>
<td>Value (1,000 dollars)</td>
<td>828,856</td>
<td>331,407</td>
</tr>
<tr>
<td>Unit value (per short ton)</td>
<td>5,193</td>
<td>6,028</td>
</tr>
<tr>
<td>Share of quantity (percent)</td>
<td>74.4</td>
<td>25.6</td>
</tr>
</tbody>
</table>

Because of rounding, figures may not add to the totals shown.

Source: Compiled from data submitted in response to Commission questionnaires.

---

Data on U.S. producers’ shipments of unfinished drill collars are presented in table III-4c. The primary U.S. producer of unfinished drill collars (by capacity), Timken, reported *** decline in its shipments during 2007 and 2009, and lower shipments in January-June 2010 compared with January-June 2009. Timken reported in its questionnaire that its unfinished drill collar (and unfinished drill pipe) order books are currently ***.
Table III-4c

Data on U.S. producers’ shipments of finished drill collars are presented in table III-4d. U.S. shipments declined in every year during 2007-09 and were lower in January-June 2010 compared with January-June 2010, while export shipments increased during 2007-09 and, despite a decline in 2010, accounted for more than one-half of total shipments.

Table III-4d

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity (short tons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>37,987</td>
<td>23,581</td>
</tr>
<tr>
<td>Export shipments</td>
<td>8,922</td>
<td>14,284</td>
</tr>
<tr>
<td>Total shipments</td>
<td>46,909</td>
<td>37,865</td>
</tr>
<tr>
<td>Value (1,000 dollars)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>123,205</td>
<td>94,835</td>
</tr>
<tr>
<td>Export shipments</td>
<td>30,528</td>
<td>55,622</td>
</tr>
<tr>
<td>Total shipments</td>
<td>153,733</td>
<td>150,457</td>
</tr>
<tr>
<td>Unit value (per short ton)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>3,243</td>
<td>4,022</td>
</tr>
<tr>
<td>Export shipments</td>
<td>3,422</td>
<td>3,894</td>
</tr>
<tr>
<td>Total shipments</td>
<td>3,277</td>
<td>3,974</td>
</tr>
<tr>
<td>Share of quantity (percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. shipments</td>
<td>81.0</td>
<td>62.3</td>
</tr>
<tr>
<td>Export shipments</td>
<td>19.0</td>
<td>37.7</td>
</tr>
<tr>
<td>Total shipments</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note.—Because of rounding, figures may not add to the totals shown.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producers’ order book information is presented in table III-5. U.S. producers’ order books peaked in the second and third quarters of 2008 before falling to their lowest point in the fourth quarter of
2009.\textsuperscript{16} *** reported *** increases for unfinished drill pipe in June 30, 2010, compared with the previous quarter.\textsuperscript{17} ***, which represents *** of the reported finished drill pipe orders, reported a *** percent increase between March 31 and June 30, 2010, followed by a *** percent decline in September 30.\textsuperscript{18} ***, which reported *** finished drill pipe orders, reported a *** percent increase between March 31 and June 30, 2010, and then *** September 30.

### Table III-5

**Drill pipe and drill collars: U.S. producers’ order books, by types, March 2007-September 2010**

<table>
<thead>
<tr>
<th>Item</th>
<th>Unfinished drill pipe</th>
<th>Finished drill pipe</th>
<th>Unfinished drill collars</th>
<th>Finished drill collars</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quantity (short tons)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>62,959</td>
</tr>
<tr>
<td>June 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>49,408</td>
</tr>
<tr>
<td>September 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>31,230</td>
</tr>
<tr>
<td>December 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>35,787</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>41,888</td>
</tr>
<tr>
<td>June 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>89,971</td>
</tr>
<tr>
<td>September 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>76,538</td>
</tr>
<tr>
<td>December 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>30,740</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>12,929</td>
</tr>
<tr>
<td>June 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>11,675</td>
</tr>
<tr>
<td>September 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>13,380</td>
</tr>
<tr>
<td>December 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>7,935</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 31</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>25,371</td>
</tr>
<tr>
<td>June 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>42,451</td>
</tr>
<tr>
<td>September 30</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>37,999</td>
</tr>
</tbody>
</table>

\textsuperscript{1} Not reported.

Source: Compiled from data submitted in response to Commission questionnaires.

### U.S. PRODUCERS’ INVENTORIES

Table III-6a presents end-of-period inventories for unfinished drill pipe. Inventories decreased from 2007 to 2009, primarily due to lower holdings by ***. *** reported higher end-of-period inventories in January-June 2010 compared to January-June 2009. *** reported no end-of-period inventories during the period examined.

\textsuperscript{16} *** were unable to provide order book information.

\textsuperscript{17} ***

\textsuperscript{18} ***
Table III-6a

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Inventories (short tons)1</td>
<td>12,458</td>
<td>21,051</td>
</tr>
<tr>
<td>Ratio to production (percent)</td>
<td>5.8</td>
<td>10.4</td>
</tr>
<tr>
<td>Ratio to U.S. shipments (percent)</td>
<td>7.8</td>
<td>16.9</td>
</tr>
<tr>
<td>Ratio to total shipments (percent)</td>
<td>5.8</td>
<td>10.5</td>
</tr>
</tbody>
</table>

1 The inventories presented may be overstated as the inventories reported by *** may include product ***. *** reported that it had incorrectly reported inventories of work-in-progress and product owned by customers but held by ***. These inventories for *** are no longer included in the data. Petitioners' posthearing brief, p. A-14.

Note.–Partial-year ratios are based on annualized production and shipments.

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-6b

Table III-6c presents end-of-period inventories for unfinished drill collars. Timken’s end-of-period inventories decreased *** in *** and again in ***, and were lower in ***. Timken explained that ***.

---

19 *** stated that it generally produces drill pipe for inventory. In addition, *** reported that the drill pipe *** was generally produced to order and transferred to the customer in the same month. *** noted that it purchased some inventory in 2008 for spot sales without firm orders which was held due to lack of orders for these products. Email from ***, January 10, 2011. *** stated that its inventories reflect drill pipe occasionally produced for inventories as well as customer orders which were complete but for which title had not been transferred. Email from ***, January 10, 2011. *** reported that inventories consisted of partial order production, and primarily, orders for which customers did not pay.

20 U.S. inventories increased between 2007 and 2008 largely due to ***.

21 Petitioners attributed this decline to the effects of the preliminary duties. Respondents argue that it is due to increased demand. Hearing transcript, p. 35 (Fields) and p. 24 (Chen).

22 *** reported that ***.
Table III-6c

Table III-6d presents end-of-period inventories for finished drill collars. Inventories increased after 2007 and remained elevated for the remainder of the period for which data were collected. All finished drill collar producers’ inventories increased throughout the period examined, with *** reporting more end-of-period inventories than the other producers combined. Annualized data from the first half of 2010 indicate that U.S. producers were holding more than one full year’s shipments in inventory.

Table III-6d

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Inventories (short tons)¹</td>
<td>13,765</td>
<td>15,563</td>
</tr>
<tr>
<td>Ratio to production (percent)</td>
<td>26.5</td>
<td>34.4</td>
</tr>
<tr>
<td>Ratio to U.S. shipments (percent)</td>
<td>36.2</td>
<td>66.0</td>
</tr>
<tr>
<td>Ratio to total shipments (percent)</td>
<td>29.3</td>
<td>41.1</td>
</tr>
</tbody>
</table>

¹ *** reported that it had incorrectly reported inventories of work-in-progress and product owned by customers but held by ***. These inventories for *** are no longer included in the data. Petitioners’ posthearing brief, p. A-14

Note.–Partial-year ratios are based on annualized production and shipments.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. PRODUCERS’ IMPORTS AND PURCHASES

U.S. producers’ imports and purchases of unfinished drill pipe are presented in table III-7a. *** U.S. producers of drill pipe reported imports or purchases from China or other countries. *** reported importing unfinished drill pipe from China, while *** reported purchasing imports from China. Imports of unfinished drill pipe from all other countries were reported by ***, while *** reported purchasing imports from all other countries.

---

²³ *** U.S. producers of finished drill collars reported increased ratios of inventories to production, particularly in January-June 2010 compared with January-June 2009.
²⁴ *** reported that inventories consisted of partial order production, and primarily, orders for which customers did not pay. Petitioners’ posthearing brief, p. A-14.
²⁵ The only exception occurred in January-June 2010 when ***’s end-of-period inventories decreased relative to January-June 2009 levels.
Table III-7a

* * * * * * * *

U.S. producers’ imports and purchases of finished drill pipe are presented in table III-7b. *** U.S. producers of drill pipe reported imports or purchases from China or other countries. *** reported imports from China and all other countries, while *** reported imports from all other countries.26

Table III-7b

* * * * * * * *

There were no reported imports or purchases of imports of unfinished drill collars by U.S. producers, thus table III-7c is not shown.

U.S. producers’ imports and purchases of finished drill collars are presented in table III-7d. *** reported imports of finished drill collars from countries other than China, largely from related companies.

Table III-7d

* * * * * * * *

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

The U.S. producers’ aggregate employment data for unfinished drill pipe, finished drill pipe, unfinished drill collars, and finished drill collars are presented in tables III-8a, b, c, and d, respectively.27 The number of reported production and related workers (“PRWs”) for each of the four products rose in 2008, then fell in 2009, and, with the exception of unfinished drill pipe, was lower in January-June 2010 compared to January-June 2009. TMK reported that it laid off workers beginning in late 2009 and continuing throughout 2010 in both its melt shop and its tube pipe mill.28 TMK accounted for a *** part of the reduced number of PRWs reported for unfinished drill pipe (table III-8a) because it reported *** PRWs in 2009, a reduction of *** PRWs compared to 2007. TSC reported at the staff conference that it has had significant layoffs at its plant.29 TSC reported reducing its number of PRWs from 2007 to 2009 by *** PRWs, and by *** PRWs in January-June 2010 compared to January-June 2009, and is one of the driving forces (along with *** behind the reduced number of PRWs in finished drill pipe (table III-8b). VAM reported at the staff conference that it had laid off one-third of its employees and was struggling to

26 ***.
27 *** was unable to provide useable employment data.
28 Conference transcript, p. 29 (Ramsey).
29 Conference transcript, p. 20 (Brand).

III-14
give its employees a 32 hour work week. In addition, every white collar employee at VAM Drilling USA reportedly had three weeks of unpaid furlough in 2010, which reported producing other products on machinery used in the production of finished drill collars, reported a decline of PRWs during 2007-09, largely in 2009. In addition, also reported a sharp decline in hourly wages and unit labor costs.

Productivity for each of the four products declined between 2007 and 2009, and remained at reduced levels in January-June 2010, with the exception of unfinished drill pipe which rebounded to its highest level.

Table III-8a

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Production and related workers (PRWs)</td>
<td>143</td>
<td>170</td>
</tr>
<tr>
<td>Hours worked by PRWs (1,000 hours)</td>
<td>298</td>
<td>373</td>
</tr>
<tr>
<td>Hours worked per PRW</td>
<td>2,084</td>
<td>2,194</td>
</tr>
<tr>
<td>Wages paid to PRWs (1,000 dollars)</td>
<td>8,968</td>
<td>10,634</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>$30.09</td>
<td>$28.51</td>
</tr>
<tr>
<td>Productivity (short tons produced per 1,000 hours)</td>
<td>266.8</td>
<td>229.7</td>
</tr>
<tr>
<td>Unit labor costs (per short ton)</td>
<td>$112.81</td>
<td>$124.11</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.

Table III-8b

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Production and related workers (PRWs)</td>
<td>1,454</td>
<td>1,567</td>
</tr>
<tr>
<td>Hours worked by PRWs (1,000 hours)</td>
<td>3,830</td>
<td>3,988</td>
</tr>
<tr>
<td>Hours worked per PRW</td>
<td>2,633</td>
<td>2,544</td>
</tr>
<tr>
<td>Wages paid to PRWs (1,000 dollars)</td>
<td>61,884</td>
<td>69,034</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>$16.16</td>
<td>$17.31</td>
</tr>
<tr>
<td>Productivity (short tons produced per 1,000 hours)</td>
<td>55.7</td>
<td>50.2</td>
</tr>
<tr>
<td>Unit labor costs (per short ton)</td>
<td>$290.01</td>
<td>$344.60</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.

30 Conference transcript, p. 17 (Fields).
31 Conference transcript, p. 18 (Fields).
### Table III-8c

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007 2008 2009</td>
<td>2009 2010</td>
</tr>
<tr>
<td>Production and related workers (PRWs)</td>
<td>196 201 133</td>
<td>153 105</td>
</tr>
<tr>
<td>Hours worked by PRWs (1,000 hours)</td>
<td>499 532 346</td>
<td>191 136</td>
</tr>
<tr>
<td>Hours worked per PRW (1,000 hours)</td>
<td>2,546 2,647 2,602</td>
<td>1,248 1,295</td>
</tr>
<tr>
<td>Wages paid to PRWs (1,000 dollars)</td>
<td>11,393 12,589 6,407</td>
<td>3,572 2,623</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>$22.83 $23.66 $18.52</td>
<td>$18.70 $19.29</td>
</tr>
<tr>
<td>Productivity (short tons produced per 1,000 hours)</td>
<td>104.1 85.0 74.5</td>
<td>64.3 33.1</td>
</tr>
<tr>
<td>Unit labor costs (per short ton)</td>
<td>$219.39 $278.38 $248.72</td>
<td>$290.81 $582.24</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.

### Table III-8d

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007 2008 2009</td>
<td>2009 2010</td>
</tr>
<tr>
<td>Production and related workers (PRWs)</td>
<td>196 201 133</td>
<td>153 105</td>
</tr>
<tr>
<td>Hours worked by PRWs (1,000 hours)</td>
<td>499 532 346</td>
<td>191 136</td>
</tr>
<tr>
<td>Hours worked per PRW (1,000 hours)</td>
<td>2,546 2,647 2,602</td>
<td>1,248 1,295</td>
</tr>
<tr>
<td>Wages paid to PRWs (1,000 dollars)</td>
<td>11,393 12,589 6,407</td>
<td>3,572 2,623</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>$22.83 $23.66 $18.52</td>
<td>$18.70 $19.29</td>
</tr>
<tr>
<td>Productivity (short tons produced per 1,000 hours)</td>
<td>104.1 85.0 74.5</td>
<td>64.3 33.1</td>
</tr>
<tr>
<td>Unit labor costs (per short ton)</td>
<td>$219.39 $278.38 $248.72</td>
<td>$290.81 $582.24</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.
PART IV: U.S. IMPORTS, APPARENT U.S. CONSUMPTION, AND MARKET SHARES

U.S. IMPORTERS

The Commission issued questionnaires to 107 firms identified as possible importers of subject drill pipe and drill collars, as well as to all U.S. producers of drill pipe and drill collars. Two U.S. producers, ***, reported imports of drill pipe; in addition, *** reported imports of drill collars. Staff verified the U.S. importer questionnaire response of Command on December 9-10, 2010. Changes pursuant to verification are reflected in the relevant sections of the Staff Report. Staff compiled data from useable questionnaire responses submitted by 33 companies believed to account for over 90 percent of U.S. imports of drill pipe and drill collars from China for each period for which data were collected.

As in the preliminary phase of these investigations, Staff carefully evaluated the use of official import statistics. However, data concerns were too extensive to justify complete reliance on these data. Accordingly, staff re-surveyed all questionnaire recipients from the preliminary phase as well as all newly-identified firms that might have imported drill pipe or drill collars. Staff’s coverage estimate is based on multiple reviews of relevant Customs data at the company level.

---

1 The Commission sent questionnaires to those firms identified in the petition as importers, along with firms that, based on a review of data provided by U.S. Customs and Border Protection (“Customs”), may have imported at least $900,000 (landed duty value paid) or which may have imported more than one percent of total imports under HTS statistical reporting numbers 7304.22.0030, 7304.22.0045, 7304.22.0060, 7304.23.3000, 7304.23.6030, 7304.23.6045, 7304.23.6060, 8431.43.8040, and 8431.43.8060 (as well as the prior HTS statistical reporting numbers 7304.21.3000, 7304.21.6030, 7304.21.6045, and 7304.21.6060) in any one year since 2007. In addition, questionnaires were sent to firms that, based on a review of PIERS and Import Genius data, were reported (as Consignee) to have collectively imported at least 90 percent of total imports during 2007-09.

2 Forty-three firms reported that they did not import drill pipe or drill collars from any source at any time since January 1, 2007.

3 Specifically: {1} there is no dedicated statistical breakout for drill collars; {2} tool-joined drill pipe is routinely entered under statistical reporting numbers intended for unfinished drill pipe; {3} quantity data for finished drill pipe are compiled by piece, not by weight; {4} value data for tool-joined drill pipe from Mexico are ***; and {5} quantity data for HTS statistical reporting number 7304.23.6030 appear to have a substantial error in January 2009. However, the issue that concerned Staff most was the substantial level of mis-reporting: more than $60 million worth of imports of casing and tubing from China, now subject to antidumping and countervailing duty orders in the United States, have been reported to have entered the United States in 2008 and 2009 under statistical reporting numbers that are clearly designated for drill pipe. In addition, in the final phase of the investigations, U.S. importer *** reported the opposite error, entering *** of imports of drill pipe from China in 2010 under a non-drill pipe HTS statistical reporting number. *** stated that its customs broker had changed the HTS statistical reporting number to classify the imports as parts (of offshore oil and gas rigs). Letter from ***, January, 18, 2011.

4 Staff’s coverage estimate began with official import statistics by value (since quantity is not collected using a uniform standard). Staff subtracted from this figure imports from China of casing, tubing, and tubing spools, tubing and casing heads and valve bodies recorded in Customs drill pipe data for the following companies: ***. No data were excluded simply on the basis of a “No” questionnaire response; all exclusions were based on a combination of documentation or follow-up telephone interviews. Then, Staff subtracted the value of ***. Next, Staff added the value of reported imports of drill pipe that were entered under incorrect HTS statistical reporting numbers. Then, Staff evaluated these data against questionnaire value data for unfinished and finished drill pipe from China, and calculated a coverage figure for drill pipe from China.

After calculating the questionnaire coverage for drill pipe from China, Staff estimated that the value of imports of drill collars from China was 10 percent of the target figure for drill pipe, based on estimates by market participants that drill collars account for 5-10 percent of the combined length of drill pipe and drill collars on the drill string. Staff believes this to be a conservative estimate, but official import statistics are not available for drill collars.

(continued...)
Table IV-1 lists all responding U.S. importers of drill pipe and drill collars from China and other sources, their locations, and their shares of U.S. imports by quantity, in 2009.5 6

Table IV-1
Drill pipe and drill collars: U.S. importers, sources of imports, U.S. headquarters, and shares of imports in 2009

<table>
<thead>
<tr>
<th>Firm</th>
<th>Headquarters</th>
<th>Source of imports</th>
<th>Share of imports (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>China</td>
</tr>
<tr>
<td>Benteler Steel &amp; Tube Corporation (&quot;Benteler&quot;)</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Drill Pipe International, LLC</td>
<td>New Hope, MN</td>
<td>***¹</td>
<td>***</td>
</tr>
<tr>
<td>Fortis Alliance (&quot;Fortis&quot;)</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Grant Prideco</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Petromaterials</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Soconord Corporation</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>TPCO Enterprise² (&quot;TPCO&quot;)</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>VAM</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table continued on next page.

4 (...continued)
Finally, Staff calculated coverage based on the combined importer questionnaire responses for drill pipe and drill collars from China relative to the target level of drill pipe imports plus 10 percent. The result of this estimate is over 90 percent coverage.

5 ***, which reported imports under the HTS statistical numbers for drill pipe, indicated that its imports consisted of pipe with outside diameters of 30-60 inches for use in boring mining access shafts and sinking bridge piles. Because the company did not provide quantity data for these entries, its imports are not included in the relevant data sets, but have been taken into consideration for purposes of coverage.

***, a firm listed as an importer of record for subject merchandise during 2007-09, was reported to be defunct as of early 2010 and the quantities and values of its imports were unavailable. The products were used in underground construction applications, were generally 10 or 15 feet in length, 3 inches or less in outside diameter, and priced between $*** per joint. Staff telephone interview with ***.

*** reported that product imported under HTS statistical reporting number 7304.23.6030 in January-June 2010 were hexagon shaped tubing used to enable carbide roof bits to drill holes deep into the roof of a coal mine. Email from ***, January 10, 2010. (The firm submitted an amendment request to move this tubing to 7304.90.3000).

6 *** provided a response to the importer questionnaire (including unfinished drill pipe and unfinished drill collars from China), but Staff was unable to reconcile the reported data, so it is not included in the data presented. *** did not provide a response in the final phase, so its preliminary phase response to the Commission’s questionnaire was used and updated with relevant import data from official Customs data.

IV-2
### Table IV-1 – Continued
Drill pipe and drill collars: U.S. importers, sources of imports, U.S. headquarters, and shares of imports in 2009

<table>
<thead>
<tr>
<th>Firm</th>
<th>Headquarters</th>
<th>Source of imports</th>
<th>Share of imports (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Finished drill pipe</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aztec Well</td>
<td>Aztec, NM</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Baosteel America, Inc.</td>
<td>Montvale, NJ</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Champions Pipe &amp; Supply, Inc.³</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Command Energy Services International Ltd. (“Command”)⁴</td>
<td>Barbados, WI</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Destiny Resources⁵</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Downhole Pipe &amp; Equipment, L.P. (“Downhole”)</td>
<td>Sugar Land, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Drill Pipe Industries</td>
<td>Texarkana, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ensign United States Drilling⁶</td>
<td>Denver, CO</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hilong USA LLC</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hunt Oil Tool Company ⁷</td>
<td>Lafayette, LA</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Longbright (American), Inc.</td>
<td>Alhambra, CA</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Grant Prideco</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV ReedHycalog</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Rig Solutions</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Petromaterials</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Precision Casting and Design</td>
<td>Midland, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Reco</td>
<td>Lenzkirchen, Austria</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Savanna Energy Services</td>
<td>Calgary, AB</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Sentry Pumping Units Int'l., Inc.⁸</td>
<td>Wichita, KS</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Soconord Corporation</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Thyssen Krupp Materials North American Inc.</td>
<td>Southfield, MI</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

Table continued on next page.
<table>
<thead>
<tr>
<th>Firm</th>
<th>Headquarters</th>
<th>Source of imports</th>
<th>Share of imports (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>China</td>
</tr>
<tr>
<td>Tiger Trading, Inc.</td>
<td>Conroe, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>TPCO Enterprise²</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>VAM</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Viking Drilling, LLC</td>
<td>Odessa, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Weatherford International, Inc.</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>100.0</td>
</tr>
</tbody>
</table>

Unfinished drill collars

<table>
<thead>
<tr>
<th>(1)</th>
<th>(1)</th>
<th>(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Finished drill collars

| Champions Pipe & Supply, Inc.³ | Houston, TX | *** | *** | *** | *** |
| Command Energy Services International Ltd. ("Command")⁴ | Barbados, WI | *** | *** | *** | *** |
| Downhole Pipe & Equipment, L.P. ("Downhole") | Sugar Land, TX | *** | *** | *** | *** |
| Drill Pipe Industries | Texarkana, TX | *** | *** | *** | *** |
| Great White Directional Services | Oklahoma City, OK | *** | *** | *** | *** |
| Hunt Oil Tool Company⁷ | Lafayette, LA | *** | *** | *** | *** |
| John Lawrie Inc.¹⁰ | Houston, TX | *** | *** | *** | *** |
| Longbright (American), Inc. | Alhambra, CA | *** | *** | *** | *** |
| Precision Casting and Design | Midland, TX | *** | *** | *** | *** |
| Reco | Lanzkirchen, Austria | *** | *** | *** | *** |
| Savanna Energy Services | Calgary, AB | *** | *** | *** | *** |
| Schoeller-Bleckmann America, Inc. | Houston, TX | *** | *** | *** | *** |
| Sentry Pumping Units Int’l., Inc.⁸ | Wichita, KS | *** | *** | *** | *** |
| Thyssen Krupp Materials North American Inc. | Southfield, MI | *** | *** | *** | *** |
| Tiger Trading, Inc. | Conroe, TX | *** | *** | *** | *** |

Table continued on next page.
Drill pipe and drill collars: U.S. importers, sources of imports, U.S. headquarters, and shares of imports in 2009

<table>
<thead>
<tr>
<th>Firm</th>
<th>Headquarters</th>
<th>Source of imports</th>
<th>Share of imports (percent)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>China</td>
<td>Other</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>VAM</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Viking Drilling, LLC</td>
<td>Odessa, TX</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Weatherford International, Inc.</td>
<td>Houston, TX</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Note.–Some importers did not report imports in 2009 but did so in other periods, and therefore have been listed.

U.S. IMPORTS

Table IV-2a presents data for U.S. imports of unfinished drill pipe from China and all other sources. The leading sources of nonsubject imports are Austria, France, and Germany. 

1. None of the larger U.S. manufacturers of finished drill collars reported any direct imports or purchases of imports of unfinished drill collars, and as noted later in Part IV, there were only limited quantities of U.S. imports of unfinished drill collars from China reported by *** and imports from all other sources reported by ***.

10. Less than 0.05 percent.

Source: Compiled from data submitted in response to Commission questionnaires.

7. ***'s most recently submitted questionnaire, revised on December 23, 2010, indicated that the company was unable to segregate imports of drill pipe and drill collars from China in 2007 valued at more than $***. *** stated that it believes that well over *** percent are drill pipe and that it imported drill collars during that period largely from nonsubject sources. In addition, U.S. importer *** submitted a revision on December 7, 2010, to its 2007-08 import data to remove ***, which were previously reflected in its import and U.S. shipment data. Other changes since the prehearing report include import data reported by ***.
Table IV-2a

* * * * * * * *

Table IV-2b presents data for U.S. imports of finished drill pipe from China and all other sources. The leading sources of nonsubject imports are ***. Of the firms that were reported imports from China in 2007, only *** reported increased imports in 2009. The largest importer of subject finished drill pipe in 2009 (and January-June 2010), *** reported a *** of imports between 2007 and 2008, followed by a decline in 2009, though ending *** percent higher than in 2007.

Table IV-2b

* * * * * * * *

There are believed to be relatively limited quantities of U.S. imports of unfinished drill collars throughout the period for which data were collected. Accordingly table IV-2c is not presented. Table IV-2d presents data for U.S. imports of finished drill collars from China and all other sources. The leading nonsubject sources of finished drill pipe collars are Austria and France.

---

8 Imports reported as originating from Mexico under statistical reporting number 8431.43.8040 included in the compilation of finished drill pipe imports were ***. The value presented in the report for these imports are based on ***. According to a company representative, ***. Staff telephone interview with ***, January 27, 2010, and November 16, 2010, and email from ***, January 10, 2011.

9 While many importers were active in 2007, *** first reported imports of finished drill pipe from China in periods after 2007. *** initially reported imports based on a contract date which was prior to the import entry date. Import data for *** have been adjusted to reflect import entry date.

10 *** reported importing unfinished “standard” drill collars from China *** in 2007 and *** in 2008. ***, acting as a middleman in a special one-time situation, imported unfinished “standard” drill collars from *** in 2007 ***. Similarly, *** reported importing *** unfinished drill collars from China *** in 2009 made from non-magnetic steel.

Among U.S. producers, ***. *** reported imports of unfinished drill collars from China ***. Staff interview with ***. *** reported importing ***.

In addition, *** reported importing unfinished drill collars from China *** in 2008 which were made from non-magnetic Monel (a nickel alloy) for use in the firm's drilling operations.

11 Data do not include *** reported imports of finished drill collars from *** because the company was unable to provide consistent quantity and value data. Staff notes, however, that the partial data provided by this company suggest that it might account for a sizeable share of the value of finished drill collar sales from nonsubject countries (**), as it specializes in high value *** drill collars. Email from ***, February 5, 2010.

*** reported importing from China sensor housings resembling drill collars made from high nickel alloy steel for use in MWD/LWD ***. In addition, *** reported imports in 2007-09 of non-magnetic non-steel finished drill collars which are not included in the data.
Table IV-2d

* * * * * * * * *

CRITICAL CIRCUMSTANCES

On January 11, 2011 Commerce issued its final determination of sales at LTFV with respect to imports from China that critical circumstances exist for imports from China of drill pipe and drill collars for the PRC-wide entity, but does not exist for the DP–Master Group or the separate rate applicants in its antidumping duty investigations. However, in its final determination of countervailable subsidies for producers and exporters of drill pipe and drill collars from China, Commerce found that critical circumstances exist for subject imports from China for the DP–Master Group and “all other” exporters. In its final determination of sales at LTFV, Commerce noted that it collected four months of additional shipment data, and that based on these additional data it no longer found an increase in imports greater than 15 percent compared with the base period for the DP-Master Group.12

Publication note: These descriptions reflect only information available prior to the closing of the Commission’s record in these investigations.

In these investigations, if both Commerce and the Commission make affirmative final critical circumstances determinations, certain subject imports may be subject to antidumping duties retroactive by 90 days from March 13, 2010, the effective date of Commerce’s preliminary affirmative CVD determination, and from August 18, 2010, the effective date of Commerce’s preliminary affirmative LTFV determination. Imports of subject merchandise (drill pipe and drill collars) where *** short tons ($***) for January-June 2010 compared with *** short tons ($***$) in July-December 2009.13

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.14 Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from

12 76 FR 1966 and 76 FR 1971, January 11, 2011, presented in app. A. When petitioners file timely allegations of critical circumstances, Commerce examines whether there is a reasonable basis to believe or suspect that (1) either there is a history of dumping and material injury by reason of dumped imports in the United States or elsewhere of the subject merchandise, or the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the subject merchandise at LTFV and that there was likely to be material injury by reason of such sales; and (2) there have been massive imports of the subject merchandise over a relatively short period.

13 Imports of subject merchandise, by type, are presented in the following tabulation. ***.

14 Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).
such countries are deemed not to be negligible.\textsuperscript{15} Imports from China accounted for one-third (\textsuperscript{16} percent) of total quantity of imports of drill pipe and drill collars by quantity during the most recent 12-month period prior to the petition (January 2009-December 2009).

**APPARENT U.S. CONSUMPTION**

Data concerning apparent U.S. consumption of unfinished drill pipe, finished drill pipe, unfinished drill collars, and finished drill collars during the period for which data were collected are shown in tables IV-3a, IV-3b, IV-3c, and IV-3d. Apparent U.S. consumption of finished drill pipe, unfinished drill collars, and finished drill collars declined in 2008 and, to a greater extent in 2009, and was lower in January-June 2010 compared with January-June 2010, in both quantity and value terms. Apparent U.S. consumption unfinished drill pipe increased \textsuperscript{16} in 2008, then declined in 2009, and was lower in January-June 2010 compared with January-June 2010 (though U.S. producers’ shipments increased while imports declined).

**Table IV-3a**


<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Table IV-3b**


<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Table IV-3c**


<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**Table IV-3d**


<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

\textsuperscript{15} Section 771(24) of the Act (19 U.S.C. § 1677(24)).

\textsuperscript{16} Imports of unfinished drill pipe from China accounted for \textsuperscript{16} percent of total imports of unfinished drill pipe by quantity during the most recent 12-month period. Imports of finished drill pipe from China accounted for \textsuperscript{16} percent of total finished drill pipe by quantity during the most recent 12-month period. Imports of finished drill collars from China accounted for \textsuperscript{16} percent of total imports of drill collars by quantity during the most recent 12-month period. There are believed to be no U.S. imports of unfinished drill collars.
U.S. MARKET SHARES

U.S. market share data are presented in tables IV-4a, IV-4b, IV-4c, and IV-4d. The share of U.S. producers’ U.S. shipments of unfinished drill pipe increased *** in 2008 before falling in 2009, but was higher in January-June 2010 compared with January-June 2009. The share of imports from China increased in 2008 and to a greater extent in 2009, but was lower in January-June 2010 compared with January-June 2009. The share of U.S. producers’ U.S. shipments of both finished drill pipe and finished drill collars declined in 2008 but increased in 2009 to above 2007 levels, and was higher in January-June 2010 compared with January-June 2009. The share of imports from China followed an opposite trend increasing in 2008, falling in 2009 though above 2007 levels, and was lower in January-June 2010 compared with January-June 2009.

Table IV-4a
Unfinished drill pipe: Apparent U.S. consumption and market shares, 2007-09, January-June 2009, and January-June 2010

*   *   *   *   *   *   *   *

Table IV-4b
Finished drill pipe: Apparent U.S. consumption and market shares, 2007-09, January-June 2009, and January-June 2010

*   *   *   *   *   *   *   *

Table IV-4c
Unfinished drill collars: Apparent U.S. consumption and market shares, 2007-09, January-June 2009, and January-June 2010

*   *   *   *   *   *   *   *

Table IV-4d
Finished drill collars: Apparent U.S. consumption and market shares, 2007-09, January-June 2009, and January-June 2010

*   *   *   *   *   *   *   *
RATIO OF IMPORTS TO U.S. PRODUCTION

Information concerning the ratio of imports to U.S. production of unfinished drill pipe is presented in table IV-5a.

Table IV-5a

* * * * * * * *

Information concerning the ratio of imports to U.S. production of finished drill pipe is presented in table IV-5b.

Table IV-5b

* * * * * * *

Information concerning the ratio of imports to U.S. production of unfinished drill collars is presented in table IV-5c.

Table IV-5c

* * * * * * *

Information concerning the ratio of imports to U.S. production of finished drill collars is presented in table IV-5d.

Table IV-5d

* * * * * * *

IV-10
PART V: PRICING AND RELATED INFORMATION

FACTORS AFFECTING PRICES

Raw Material Costs

The key raw materials for drill pipe and drill collar production include steel billets, bars, tube bodies, and tool joints. Raw materials as a share of cost of goods sold for U.S. producers of finished drill pipe increased slightly from 64.6 percent in 2007 to 68.6 percent in 2008, decreased to 67.1 percent in 2009, and then increased to 68.9 percent in the first half of 2010. Finished drill collars’ cost share of raw materials was 60.9 percent in 2007, 65.1 percent in 2008, 60.6 percent in 2009, and 62.9 percent in the first half of 2010. The cost share of raw materials is higher for unfinished drill pipe and drill collars than for finished. The price of scrap used to make billets and bars was relatively stable during 2007, doubled over the first three quarters of 2008 before decreasing below early 2007 levels in the final quarter of 2008, and then increased irregularly in 2009 and 2010 (figure V-1). Natural gas, electricity, and iron ore prices rose between 2007 and 2008, with noticeable increases for each in 2008; in 2009 the prices of electricity and iron ore were stable while gas prices fell sharply before stabilizing in 2010 (table V-1).

Figure V-1
Ferrous scrap prices: No. 1 heavy melt, Chicago and Pittsburgh average consumer prices, monthly, January 2007-December 2010

Source: American Metal Market LLC.

1 See Part VI of this report for further details.
Table V-1
Drill pipe and drill collars: Energy and input prices--U.S. natural gas, electricity, and iron ore average annual prices, 2007-10 (partial)

<table>
<thead>
<tr>
<th>Item</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. natural gas industrial price1</td>
<td>$7.68</td>
<td>$9.67</td>
<td>$5.28</td>
<td>$5.42</td>
</tr>
<tr>
<td>Electricity industrial price2</td>
<td>6.39¢</td>
<td>6.83¢</td>
<td>6.70¢</td>
<td>6.85¢</td>
</tr>
<tr>
<td>Iron ore3</td>
<td>$59.64</td>
<td>$70.43</td>
<td>$70.00</td>
<td>NA</td>
</tr>
</tbody>
</table>

1 Price to industrial users in dollars per thousand cubic feet. 2010 data are for January–October 2010.
2 Price to industrial users in cents per kilowatt-hour. 2010 data are for January–September 2010.
3 Price per metric ton. 2010 data were unavailable as of the closing of the record.


U.S. Inland Transportation Costs

U.S. producers and importers generally reported that U.S. inland transportation costs of drill pipe and drill collars are up to 5 percent of the delivered price. Two of 13 responding U.S. producers reported that the majority of their sales were within 100 miles of their facility, 5 reported half or more of their sales were between 101 and 1,000 miles from their facility, and 4 reported the majority of their sales were beyond 1,000 miles from their facility. Nine of 19 responding importers of product from China reported that the majority of their sales were within 100 miles of their facilities, 6 reported selling the majority between 101 and 1,000 miles, and 4 sold half or more over 1,000 miles.

PRICING PRACTICES

Pricing Methods

Twelve of 13 U.S. producers use transaction-by-transaction negotiations. One U.S. producer, ***, reported using price lists. Fourteen of 17 responding importers of products from China use transaction-by-transaction negotiations and three use contracts. Eleven of 13 responding U.S. producers quote prices on an f.o.b. basis, while one quotes prices on both an f.o.b. and on a delivered basis, and one reported selling mainly on a delivered basis. Eight of 16 responding importers quote prices of drill pipe and drill collars on an f.o.b. basis, 7 quote on a delivered basis, and 1 quotes on an ex-warehouse basis.

---

2 Two importers reported costs higher than 5 percent.
3 One firm sold at least 25 percent in each of the distance ranges.
4 One U.S. producer, ***, reported using price lists.
Sales Terms and Discounts

The majority of producers and importers reporting selling drill pipe on a spot basis.5 Similarly, all U.S. producers of drill collars reported either spot or short-term contract sales and all six responding importers reported selling drill collars only on a spot basis.6

U.S. producers’ short-term contracts range in length from 30 days to 12 months. Three of five responding producers allow for price renegotiation during a contract; all reported that contracts fixed prices while three reported fixed quantities; and two of 4 responding producers reported meet or release provisions. Importers’ short-term contract length averaged 3 months while long-term contracts averaged *** months. All importers reported that their contracts do not allow price renegotiation, fix both price and quantity, and do not contain meet or release provisions. U.S. producers typically sell using non-cancellation clauses; cancellations only occur if the purchaser is unable to sell.7 Respondents report that importers have non-cancellation clauses for special orders but are more lenient for API grade material.8

Seven of 13 responding U.S. producers offer no discounts; 3 offer quantity discounts or annual total quantity discounts; and 3 reported other discounts.9 Fifteen of 18 responding importers of product from China reported no discounts; the remaining 3 reported quantity discounts or annual total quantity discounts. Respondents report that smaller customers are quoted published prices which can be 25 to 50 percent higher than prices offered to large customers.10

Price Leaders

Twenty-five purchasers reported one or more firms to be price leaders.11 Most often cited were U.S. producers, including NOV Grant Prideco (19 purchasers), Smith (14), and VAM (7). Chinese producers DP Master (5) and Hilong (2) were also cited. Purchasers were asked if U.S., Chinese, or other foreign produced drill pipe and drill collars were offered to them at the lowest prices since January 2007. Eleven of 34 responding purchasers reported that U.S. product was offered at the lowest price, 15 reported Chinese product was offered at the lowest price, and 8 gave other responses.12 Of the largest

---

5 Specifically, seven of 12 U.S. producers 2009 drill pipe sales were solely spot sales, 3 sold *** on short-term contracts and the remainder ***; 1 sold *** percent spot and *** percent short-term contracts; and 1 sold *** percent long-term contracts, *** percent short-term contracts, and *** percent spot. *** of nine responding importers sold all drill pipe from China in spot sales; *** sold only using short-term contracts; and *** reported selling *** percent of drill pipe in spot sales and the remainder using long-term contracts.

6 Specifically, three of seven U.S. producers of drill collars reported that *** of their sales are spot sales; one sold *** drill collar using short-term contracts; one reported *** percent of its sales were on a short-term contract basis; one reported selling *** percent using short-term contracts and *** percent using spot sales; and one firm sold *** percent of its collar using spot sales and *** percent using short-term contracts.

7 Hearing transcript, pp. 105-106, 203 (Brand, Fields, and Murphy).
8 Hearing transcript, pp. 286-288 (Garvey and Lesco).
9 These other discounts were those based on market conditions, dealer discounts, and lower prices for distributors.
10 Hearing transcript, p. 225 (Mostoway).
11 The questionnaire defined price leaders as “(1) one or more firms that initiate a price change, either upward or downward, that is followed by other firms, or (2) one or more firms that have a significant impact on prices. A price leader does not necessarily have to be the lowest priced supplier.” Price leaders cited only once are not reported.
12 One purchaser reported that Austria offered the lowest price for drill pipe, and the remaining purchasers reported that there was no single country offering the lowest prices. Of the 15 purchasers that purchased Chinese product, 9 reported that Chinese product was lowest priced, 1 reported U.S. was lowest price, 2 reported the market determined price, 1 did not answer the question, and for 2, ***. Three purchasers imported, rather than purchased,
eight purchasers, two reported U.S. prices were lowest, one reported that U.S. and European prices were lowest, two reported that Chinese prices were lowest, one, ***, reported that prices were the same regardless of the country of origin, one, ***, reported that lowest prices “varied with demand, with high demand Chinese price was lower,” and one, ***.13

Add-Ons

Drill pipe is sold with a range of different add-ons.14 The most important are interior plastic coating or lining and hard banding. By the time drill pipe is used in downhole applications, it typically has both plastic coating and hard banding. Add-ons may be either applied by the manufacturer or by a sub-contractor for the manufacturer, or the purchaser may contract to have them applied after purchase. These add-ons are estimated to increase a manufacturer’s selling price by about $*** per foot for plastic coating and $*** per foot for hard banding.15 Make-or-break treatment,16 which is designed to make connecting drill pipe sections in the field easier, can increase the selling price by about $*** per foot; increased tong space on the connections may add from $*** per foot; differences in product inspection may add *** per foot; and differences in the tool joints add an estimated *** percent to the weight of the finished drill pipe with every quarter inch decrease in the interior diameter of the tool joint.17 Firms report that these add-ons frequently explain quarter-to-quarter variations in their prices as well as differences among different firms’ prices in any quarter.18 Producers and importers report that they typically do not track these add-ons and would have to go back to the original invoices to provide detailed information.19 Respondents report that add-ons may be completed either in China or in the United States. Importers ordering product for inventory, however, are less likely have the add-ons completed in China so that they can provide individual purchasers with the add-ons they prefer.20 The following tabulation reports the estimated share of product sold by firms with the listed add-ons.21

* * * * * * * * *

12 (...continued)

13 *** of the eight largest purchasers purchased both domestic and Chinese products. ***.

14 Heavy-weight drill pipe, unfinished drill pipe, and finished and unfinished drill collars are not typically sold with these add-ons.

15 Staff telephone interview with ***; email from counsel for petitioners, November 17, 2010; and email from counsel for respondents, November 17, 2010.

16 Finished drill collars may have make-or-break treatment.

17 Staff telephone interview with ***.

18 The abrupt decline in demand in mid-2008 also contributed to price variability. Some purchasers, faced with lengthening delivery dates in the first half of 2008, contracted for future deliveries at relatively high prices. The actual delivery, however, occurred in the second half of 2008 and in the first quarter of 2009, when the spot price had fallen. At the same time, demand for drill pipe and drill collars fell to such an extent that these earlier contracts in some cases represented a large share of all sales in these later quarters. While few firms reported quantity discounts, prices set on a transaction by transaction basis may vary with the size of purchase/purchaser without any explicit quantity discounts. Importer ***.

19 Staff telephone interview with ***.

20 Hearing transcript, p. 307 (Lesco).

21 Staff telephone interview with ***; email from counsel for petitioners, November 17, 2010; and email from counsel for respondents, November 17, 2010.
Price Lags

Non-cancellation clauses in purchase contracts require the purchase of ordered product at the agreed-upon price. Without such clauses, either the price or the quantity (or both) of drill pipe and drill collars purchased could be expected to react relatively quickly to changes in demand. However, with non-cancellation clauses, purchasers are required to continue purchasing orders placed when prices reflected higher or lower demand. In addition, in a sharp downturn, purchasers would generally have fewer opportunities to offset higher-priced purchases with orders reflecting the lower spot prices.

Petitioners report that U.S. producers do not produce for inventories but produce to order using non-cancellation clauses which are enforced unless the purchaser is actually unable to pay. Respondents report that at the time of the 2008 market disruption, U.S. producers NOV Grant Prideco and VAM had at least a 10-month order backlogs with non-cancellation clauses. In addition, respondents report that during periods of high demand, U.S. producers required purchasers to agree to price escalators for raw material and energy costs. Respondents report that importers also use non-cancellation clauses for some, but not for all, orders.

In 2008, purchasers had contracts to buy U.S. and Chinese products into the future subject to non-cancellation clauses. This initially limited the decline in U.S. and Chinese sales and prices, after the economic downturn, while these contracts were in force.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of selected finished and unfinished products shipped to unrelated U.S. customers during January 2007-June 2010. The products for which pricing data were requested are as follows:

Product 1.—Drill pipe, finished, 5" O.D., 19.5 lbs./ft., grade G-105 with tool joints attached. (For this product a common tool joint would be API NC 50 with 6 5/8 in. O.D., 3 ¼ in. ID.)

---

22 Hearing transcript, pp. 104-106 (Fields and Brand).
23 Hearing transcript, p. 203 (Leibowitz).
24 Hearing transcript, p. 203 (Murphy). **. Staff correspondence with *** and staff interview with ***.
25 Hearing transcript, pp. 286-287 (Garvey and Lesco).
26 Firms were requested to provide both quantity in feet and in short tons. Feet are presented rather than short tons as these data appear to be more accurately provided, and two firms provided feet data only.
27 Product definitions included a common type of tool joint or connector attached to finished drill pipe or finished drill collar. Firms were requested to report if the tool joints or connectors attached to drill pipe or drill collar differed from that in the definition and to report what type of tool joint or connection was attached. Responses on tool joint or connection were limited.
28 Pricing items 1, 2, 5, and 6 were drawn from the petition, p. 12. Price item 3 was provided by petitioners following the preliminary phase of these investigations (petitioners’ response to the questionnaire, p. 30). Price item 4 was identified with ***, staff telephone interview, September 10 and 15, 2010. Also see Drill Pipe and Drill Collars from China, Investigation Nos. 701-TA-474 and 731-TA-1176 (Preliminary), USITC Publication 4127, March 2010, p. 30, n. 227. No pricing data were requested for unfinished drill collars or premium drill pipe since these imports were extremely limited.
**Product 2.**—Drill pipe, finished, 4 ½" O.D., 16.6 lbs./ft., grade G-105 with tool joints attached. (For this product a common tool joint would be API NC 46 with 6 1/4 in. O.D., 3 in. ID.)

**Product 3.**—Drill pipe, finished 5" O.D. 19.5 lbs./ft., grade S-135 with tool joints attached. (For this product a common tool joint would be API NC 50 with 6 5/8 in. O.D., 2 ¾ in. ID.)

**Product 4.**—Drill pipe, unfinished, 5" O.D., 18.85 lbs./ft., 0.382" wall, specification 301 chemistry.

**Product 5.**—Heavy -weight drill pipe, 5" O.D., 50.1 lbs./ft., with tool joints attached. (For this product a common tool joint would be API NC 50 with 6 5/8 in. O.D., 3 in. ID.)

**Product 6.**—Drill collars, 6 ½" O.D., x 2 13/16" ID with connections attached. (For this product a common connection would be API NC 46.)


Data segregated by companies selling primarily to end users and those selling primarily to distributors is provided in appendix G. In addition, to examine the relationship between purchase size and drill pipe prices, purchaser price data for product 1 were requested. Ten purchasers provided usable data; these data are presented in appendix G. *** of these 10 purchasers reported prices for product from both the United States and China; these data are also shown separately in appendix G.

### Price Trends

Weighted-average f.o.b. prices and quantities reported for U.S. producers and importers are presented in tables V-2 through V-7 and in figures V-2 through V-7. The price of all four finished drill pipe products, products 1-3 and 5, declined over the period examined, as did the price of finished drill collars. The price of U.S. produced unfinished drill pipe, product 4, in contrast, increased over the period examined, although there was ***. Table V-8 summarizes the number of quarters, high and low prices, and change in prices over the period.

---

29 The Commission also requested pricing data on sales of imports from nonsubject sources (appendix H).
30 U.S. producers’ coverage is calculated using ***.
31 ***.
32 ***.
In addition to weighted-average sales prices, tables V-2 through V-7 also show Command’s purchase prices and quantities for its direct imports from China. Staff requested Command to report its landed, duty paid prices because the company was not only the importer of finished drill pipe from China in 2009 but also, ***. Although co-respondent Downhole also was importer, by 2007 ***.

Table V-2
Drill pipe: Weighted-average f.o.b. prices and quantities of domestic and imported product and margins of underselling/overselling, by quarters, January 2007-June 2010

<table>
<thead>
<tr>
<th>Period</th>
<th>Sales data</th>
<th>Command’s purchase data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United States</td>
<td>China</td>
</tr>
<tr>
<td></td>
<td>Price (per foot)</td>
<td>Quantity (feet)</td>
</tr>
<tr>
<td>2007:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>$55.42</td>
<td>376,397</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>July-Sept.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Oct.-Dec.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2008:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>55.13</td>
<td>183,050</td>
</tr>
<tr>
<td>July-Sept.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Oct.-Dec.</td>
<td>57.02</td>
<td>143,482</td>
</tr>
<tr>
<td>2009:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>July-Sept.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Oct.-Dec.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2010:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>--</td>
<td>0</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

1 Drill pipe, finished, 5” O.D., 19.5 lbs./ft., grade G-105 with tool joints attached. (For this product a common tool joint would be API NC 50 with 6 5/8 in. O.D., 3 ¼ in. ID.)
2 This includes some product ***.

Source: Compiled from data submitted in response to Commission questionnaires.

---

33 In addition to its direct imports, Command also reported that ***.
34 Command reported that the majority of the drill pipe it brought into the United States had add-ons provided in the United States. Hearing transcript, p. 308 (Garvey).
Table V-3
Drill pipe: Weighted-average f.o.b. prices and quantities of domestic and imported product 2¹ and margins of underselling/(overselling), by quarters, January 2007-June 2010

<table>
<thead>
<tr>
<th>Period</th>
<th>Sales data China</th>
<th>Command's purchase data China</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United States²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Price (per foot)</td>
<td>Quantity (feet)</td>
</tr>
<tr>
<td>2007:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>$41.98</td>
<td>195,680</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>July-Sept.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Oct.-Dec.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2008:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>July-Sept.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Oct.-Dec.</td>
<td>48.94</td>
<td>296,759</td>
</tr>
<tr>
<td>2009:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>July-Sept.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Oct.-Dec.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2010:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan.-Mar.</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Apr.-June</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

¹ Drill pipe, finished, 4 ½" O.D., 16.6 lbs./ft., grade G-105 with tool joints attached. (For this product a common tool joint would be API NC 46 with 6 1/4 in. O.D., 3 in. ID.)
² This includes some product ***.

Source: Compiled from data submitted in response to Commission questionnaires.

Table V-4
Drill pipe: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarters, January 2007-June 2010

* * * * * * *

Table V-5
Unfinished drill pipe: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarters, January 2007-June 2010

* * * * * *
Table V-6
Drill pipe: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 and margins of underselling/(overselling), by quarters, January 2007-June 2010

Table V-7
Drill collars: Weighted-average f.o.b. prices and quantities of domestic and imported product 6 and margins of underselling/(overselling), by quarters, January 2007-June 2010

Figure V-2
Drill pipe: Weighted-average f.o.b prices and quantities of domestic and imported product 1, by quarters, January 2007-June 2010

Figure V-3
Drill pipe: Weighted-average f.o.b prices and quantities of domestic and imported product 2, by quarters, January 2007-June 2010

Figure V-4
Drill pipe: Weighted-average f.o.b prices and quantities of domestic and imported product 3, by quarters, January 2007-June 2010

Figure V-5
Unfinished drill pipe: Weighted-average f.o.b prices and quantities of domestic and imported product 4, by quarters, January 2007-June 2010

Figure V-6
Drill pipe: Weighted-average f.o.b prices and quantities of domestic and imported product 5, by quarters, January 2007-June 2010

Figure V-7
Drill collars: Weighted-average f.o.b prices and quantities of domestic and imported product 6, by quarters, January 2007-June 2010

Table V-8
Drill pipe and drill collars: Summary of weighted-average f.o.b. prices for products 1-6 by source

V-9
Price Comparisons

Margins of underselling and overselling for the period are presented by product category in table V-9. Prices of imports from China were lower than the U.S. producers’ prices in 25 out of 62 quarterly comparisons, by margins ranging from 0.2 percent to 31.1 percent. Prices of imports from China were higher than U.S. producers’ prices in 37 quarterly comparisons, by margins ranging from 0.5 to 45.9 percent.

Table V-9
Drill pipe and drill collars: Instances of underselling/overselling and the range and average of margins for products 1-6, January 2007-June 2010

<table>
<thead>
<tr>
<th>Product or Period</th>
<th>Number of quarters of underselling</th>
<th>Number of quarters of overselling</th>
<th>Margins of underselling</th>
<th>Margins of (overselling)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Average (percent)</td>
<td>Range (percent)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
</tr>
<tr>
<td>By product:</td>
<td></td>
<td></td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>9</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>8</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>3</td>
<td>8</td>
<td>4</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>11</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>4</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>By period:</td>
<td></td>
<td></td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2007</td>
<td>7</td>
<td>12</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2008</td>
<td>5</td>
<td>14</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>2009</td>
<td>8</td>
<td>9</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Jan.-June 2010</td>
<td>6</td>
<td>2</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total¹</td>
<td>25</td>
<td>37</td>
<td>10.8</td>
<td>0.2</td>
</tr>
</tbody>
</table>

¹ Total number of instances for all cited products, range of margins for all cited products, and average margin for all cited products.

Note.—Chinese data for product 1 (5” G-105 drill pipe) in the first quarter of 2010 correspond to sales to *** by ***, including ***,. In this same quarter, U.S. producers reported no sales to customers of product 1; accordingly, no price comparison can be calculated.

Source: Compiled from data submitted in response to Commission questionnaires.

*** 35

35 ***
Prices can vary from quarter to quarter because of differences in product specifications such as internal coatings, hard banding, and other adders. Half year prices are presented in table V-10 to reduce this quarter to quarter variation caused by differences in adders. However, this aggregation does not address other sources of price variation.

Table V-10
Drill pipe and drill collars: Half yearly weighted-average f.o.b. prices and quantities reported by the purchasers of domestic and imported product 1-6, January 2007-June 2010

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

**LOST SALES AND LOST REVENUES**

U.S. producers reported *** lost sales allegations\(^{38}\) valued at a total of $*** and *** lost revenues allegations\(^{39}\) valued at a total of $***, due to competition from imports from China since January 2006.\(^{40}\) Staff received responses from purchasers regarding *** lost sales allegations valued at $*** and *** lost revenues allegations valued at $***. The responding firms confirmed *** allegations totaling $***\(^{41}\) and denied *** allegations totaling $***. In the *** remaining allegations, purchasers did not respond to the specific transactions cited but provided other responses. The specific allegations are shown in tables V-11 and V-12, and purchasers’ detailed responses are discussed below.

*** was cited in a lost *** allegation involving *** short tons of drill *** valued at $*** allegedly occurring in ***. It disagreed with the allegation, stating that ***.

*** was cited in an *** lost *** allegation involving *** short tons of drill pipe valued at $***. It disagreed with the allegation, stating that ***.

Table V-11
Drill pipe and drill collars: U.S. producers’ and converters’ lost sales allegations

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

Table V-12
Drill pipe and drill collars: U.S. producers’ and converters’ lost revenue allegations

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>

*** was cited in *** allegations involving *** short tons of *** valued at $*** allegedly occurring in 2006 through 2009 and *** involving *** short tons of drill pipe valued at $*** allegedly occurring in ***.

---

\(^{36}\) According to one large market participant, differences in product mix between and among suppliers were more pronounced on a quarter-to-quarter basis but would tend to smooth out over longer periods of time. Staff telephone interview with ***, November 15, 2010.

\(^{37}\) Respondents offer several observations regarding the aggregation of price data into six-month periods, which they correctly note is not typical in Commission investigations. First, price variability is simply a feature of certain markets examined by the Commission. Second, aggregation further compresses an already-limited number of price observations. Third, price variations reflect quarter-by-quarter changes in product mix. Fourth, half yearly prices continue to exhibit a high level of period-to-period variability. Respondents’ prehearing brief, Appendix IV.

\(^{38}\) *** of the lost sales allegations involved drill pipe and the remaining *** involved drill collars.

\(^{39}\) *** of the lost revenues allegations involved drill pipe and the remaining *** involved drill collars.

\(^{40}\) The lost revenues allegations provided involved sales of ***.

\(^{41}\) All eight lost sales allegations to which purchasers agreed were for drill pipe.

V-11
occurring in ***. *** agreed to *** lost *** allegations involving *** short tons of drill pipe valued at $***. It also reported that it has switched from purchasing drill pipe from U.S. producers to Chinese import suppliers and that U.S. producers have reduced their prices to compete with subject imports.

*** was cited in a *** involving *** short tons of drill pipe valued at $*** and *** involving more than *** short tons of drill pipe valued at $***. It reported that ***, but that it disagreed with ***. It reported that it had switched *** percent of its purchases from U.S. producers to Chinese import suppliers since *** because U.S. producers could not meet its demand. It further reported that ***.

*** was cited in a *** allegation involving *** of drill pipe valued at nearly $***. It did not respond to the specific allegation but reported that ***.

*** was cited in one lost *** allegation involving *** drill pipe at $***. It disagreed with the allegation, reporting that ***.

*** was cited in *** lost *** allegations involving ***. ***, it reported that ***.

*** was cited in a *** allegation involving *** short tons of drill pipe valued at nearly $***. It disagreed with the allegation, stating that it switched from purchasing U.S.-produced to imports from China because lead times from U.S. producers were *** months, whereas the imported product from China was readily available.

*** was cited in *** valued at $***. It disagreed with *** allegations reporting that ***.

*** was cited in a *** allegation involving *** short tons of drill pipe valued at $***. It disagreed with the allegation, stating that it did not purchase any imports from China during the time period cited and that it ***. It further reported that it ***. ***.

*** was cited in *** lost sales allegations involving *** short tons of drill pipe valued at $***. It agreed with the allegations. It further reported that ***.

*** was cited in a *** allegation involving *** short tons of drill pipe valued at $***. It reported that it has switched its purchases from U.S. producers to Chinese import suppliers due to price and that U.S. producers have reduced prices to compete with subject imports.

*** was cited in a *** allegation involving *** short tons of drill pipe valued at more than $***. It agreed with the allegation, stating that it has switched purchases of drill pipe from U.S. producers to Chinese import suppliers due to price but that ***.

*** was cited in *** lost sales allegations involving *** short tons of drill pipe valued at $*** allegedly occurring in ***. It disagreed with ***, reporting that ***.

*** was cited in *** lost sales allegations, *** involving *** short tons of *** valued at $*** and ***. It disagreed with *** reporting that it paid $*** and purchased Chinese product because ***. It purchased ***.

*** was cited in *** lost sales allegations involving *** short tons of drill pipe valued at $***. It did not respond to the specific allegations; however, it reported that it does not import drill pipe from China and that it has ***. It further reported ***.

*** was cited in *** lost sales allegations involving *** short tons of drill pipe valued at $***. It *** with the allegation.

*** was cited in one lost sales allegation involving *** short tons of drill pipe valued at $***. It *** with the allegation, reporting that ***. It reported that ***. It further reported that ***.

***.

***.

***.

V-12

---

42 ***.

43 ***.
PART VI: FINANCIAL EXPERIENCE OF THE U.S. PRODUCERS

BACKGROUND

Twelve U.S. producers reported financial results related to drill pipe and drill collar operations.1 With two exceptions, U.S. producers reported their financial results based on U.S. generally accepted accounting principles (“GAAP”) with annual periods reported on a calendar-year basis.2 3 Because the majority of revenue reflects commercial sales, a single total sales line item is presented in the tables below.4 Staff verified VAM’s response to the U.S. producers’ questionnaire on November 3-4, 2010. Changes pursuant to verification are reflected in the relevant sections of the Staff Report, as are adjustments to eliminate *** of drill pipe ***.

The finished and unfinished portions of the U.S. industry generally differ in terms of the relative importance of drill pipe and drill collar operations to their overall and facility-specific operations. Timken, TMK, and U.S. Steel reported that casing, tubing, and/or other tubular products represent the substantial majority of the sales generated from the facilities where unfinished drill pipe is produced. In contrast and with some exceptions, finished drill pipe and drill collar producers generally reported that finished drill pipe and drill collars represent the majority of sales generated from the facilities where these products are produced.

The scale of operations is a primary difference among the various companies. NOV Grant Prideco, Smith, and VAM are part of large multinational companies such that their finished drill pipe sales, as reported to the Commission, reflect a relatively small share of consolidated sales.5 In contrast, the other finished drill pipe and drill collar producers are generally stand-alone entities in which finished drill pipe and drill collars represent the majority of overall sales. These stand-alone producers, particularly with respect to finished drill pipe operations, also tend to be relatively newer entrants.

While all finished drill pipe and drill collar producers other than *** reported export sales, the absolute value and share of exports reported by ***. With respect to ***, in varying degrees in each period, the majority of finished drill pipe export sales consisted of ***.

---

1 *** did not report complete financial results and therefore are not reflected in this section of the report.
2 ***. USITC auditor final-phase notes. ***.
3 Sales of unfinished drill pipe are generally invoiced in feet. VAM verification report, p. 6. As a result, reporting the aggregate weight of corresponding finished drill pipe was a challenge for responding companies; e.g., ***. USITC auditor final-phase notes. Staff generally believes that U.S. producers provided reasonable estimates of sales volume in short tons.
4 ***. Staff telephone interview with ***, January 20, 2010 (USITC auditor notes (preliminary phase)). ***. USITC auditor final-phase notes.
5 The operations reported by NOV Grant Prideco are reflected in NOV’s Petroleum Services & Supplies segment. Grant Prideco 2008 10-K, p. 2. During the period examined Smith’s drill pipe operations were included in its Oilfield segment, while VAM Drilling USA, along with a number of other entities, is part of Vallourec’s Oil and Gas division. Smith 2009 10-K, p. 3. Vallourec registered document 2009, p. 31. VAM’s U.S. operations on finished drill pipe and drill collars represent the former operations of OMSCO which were purchased by Vallourec in 2006. Hearing transcript, p. 32 (Fields). As noted in part III, Smith was acquired by Schlumberger in August 2010 and Grant Prideco was purchased by NOV in April 2008.
Each U.S. producer is also unique in terms of items such as underlying product mix, manufacturing, cost classification, and marketing. Specific operational differences which distinguish U.S. producers also include, among other features, the extent to which inputs are purchased from related parties, as well as in-house heat treatment capacity.

Notwithstanding the above differences, a number of U.S. producers reported similar cost-cutting measures (in large part consisting of employee layoffs and/or reduced hours and corresponding reduced production activity) in response to notably lower sales volume in 2009.

**OPERATIONS ON DRILL PIPE AND DRILL COLLARS**

Income-and-loss data for operations on unfinished drill pipe, finished drill pipe, unfinished drill collars, and finished drill collars are presented in tables VI-1a, VI-1b, VI-1c, and VI-1d. Tables VI-2a and VI-2b present selected company-specific financial information with subtotals for operations on unfinished and finished drill pipe and unfinished and finished drill collars, respectively. A variance analysis of the financial results of each of the above-referenced categories is presented in tables VI-3a, VI-3b, VI-3c, and VI-3d.

---

6 Underlying product mix is presumed to be a primary factor which explains differences in company-specific average sales value and average cost of goods sold (“COGS”). In addition to differences such as the extent to which tool joints are manufactured from tool joint forgings or purchased in essentially completed form, the components of reported COGS also reflect differences in cost accounting systems which are variously based on standard cost (predominant), job order, process cost, modified actual cost, and hybrid job order. As noted in the relevant tables below, several companies were unable to report the components of COGS separately.

7 With respect to prospective changes in marketing activity, the 10-year agreement pursuant to which Smith sold TCS’s finished drill pipe and drill collars was terminated in early December 2010. Hearing transcript, p. 39 (Brand). Smith, which was described as selling a full-line of drill stem products, was purchased by Schlumberger in August 2010. Ibid. ***.

8 Four companies reported input purchases from related parties: ***. USITC auditor final-phase notes.

With respect to finished drill pipe financial results and inputs from related parties, ***. E-mail from *** to USITC auditor, January 19, 2011. ***. USITC auditor final-phase notes.

Supplemental information in table VI-1b presents the industry’s overall finished drill pipe operating income ***.


10 Overall consolidations of unfinished drill pipe and unfinished drill collar operations and finished drill pipe and finished drill collar operations, respectively, are presented in appendix C. Financial results on subcategories of finished drill pipe operations identified as “premium finished drill pipe” and “non-premium finished drill pipe” are presented in appendix D.

11 The Commission’s variance analysis is calculated in three parts: sales variance, cost of sales variance, and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost variance (in the case of the cost of sales and SG&A expense variance) and a volume variance. The sales or cost variance is calculated as the change in unit price times the new volume, while the volume variance is calculated as the change in volume times the old unit price. Summarized at the bottom of the respective tables, the price variance is from sales, the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the lines under price and cost/expense variance.

As indicated below, while some producers reported that their product mix was essentially unchanged during the period examined, others indicated that product mix changed. All things being equal, a stable overall product mix generally enhances the utility of the Commission’s variance analysis.
Unfinished and Finished Drill Pipe Operations

As shown in table VI-2a, Timken, TMK, and U.S. Steel reported financial results on unfinished drill pipe, while Charles Machine, Drill Pipe International, NOV Grant Prideco, RDT, Smith, Superior, TSC, and VAM reported usable financial results on finished drill pipe. NOV Grant Prideco accounts for a substantial share of overall finished drill pipe activity. With the exception of a relatively small volume of exports, the unfinished drill pipe produced and sold by U.S. mills (see table VI-1a) is consumed in U.S. finished drill pipe production. As indicated in footnote 8 above, *** represent a large share of the remaining unfinished drill pipe consumed in the production of finished drill pipe in the United States.

Sales Volume and Value

A notable trend reflected in the financial results of both drill pipe product categories is the pattern of sales volume; peaking in 2007 and 2008 for finished drill pipe and unfinished drill pipe, respectively, followed by substantial declines in sales volume in 2009. As shown in the variance analysis tables for unfinished drill pipe and finished drill pipe (tables VI-3a and VI-3b), both categories reported overall net negative volume variances between 2007 and 2009. In the case of unfinished drill pipe, the entire net negative volume variance is attributable to the decline in sales volume between 2008 and 2009, while for finished drill pipe part of the overall net negative volume variance is also attributable to a decline in sales volume between 2007 and 2008. With several exceptions, company-specific information presented in table VI-2a shows that U.S. producers of unfinished and finished drill pipe reported the same basic pattern of substantially lower sales volume in 2009.

On an overall basis average sales value for unfinished and finished drill pipe exhibited different trends; unfinished drill pipe reached its highest level in 2008 while finished drill pipe reached its highest level in the first half of 2009. This divergence is reflected in the variance analysis tables of both categories which indicate that unfinished drill pipe operations generated a relatively smaller positive price variance between 2007 and 2009 compared to finished drill pipe. This difference is also reflected in the averages sales values on a company and category-specific basis shown in table VI-3a.

With regard to unfinished drill pipe, *** average sales value in 2009 compared to 2008, while *** reported lower average sales value. ***. While the overall unfinished drill pipe category generated a higher average sales value in interim 2010 compared to 2009, ***.

With respect to finished drill pipe, *** in average sales value between 2007 and 2009 which the company generally attributed to a combination of changes in average sales value and product mix. ***. *** average sales value during the full-year period. According to the company, its average sales value ***. 16 ***.

---

12 As indicated above, ***.
13 ***. Conference transcript (Morris), pp. 21-22. USITC auditor final-phase notes.
14 According to TMK, ***. E-mail with attachment from *** to USITC auditor, October 25, 2010. U.S. Steel stated that ***. E-mail with attachment *** to USITC auditor, October 26, 2010. According to Timken, ***. E-mail with attachment from *** to USITC auditor, November 16, 2010.
15 E-mail with attachments from *** to USITC auditor, November 9, 2010.
16 VAM verification report, pp. 6-7.
Table VI-1a
Unfinished drill pipe: Results of operations, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td><strong>Quantity (short tons)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total net sales quantity</td>
<td>78,561</td>
<td>90,178</td>
</tr>
<tr>
<td><strong>Value ($1,000)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total net sales value</td>
<td>117,250</td>
<td>178,647</td>
</tr>
<tr>
<td>Cost of goods sold:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials</td>
<td>38,686</td>
<td>58,876</td>
</tr>
<tr>
<td>Direct labor</td>
<td>12,007</td>
<td>14,402</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>21,781</td>
<td>35,190</td>
</tr>
<tr>
<td>Total cost of goods sold</td>
<td>72,474</td>
<td>108,468</td>
</tr>
<tr>
<td>Gross profit</td>
<td>44,776</td>
<td>70,179</td>
</tr>
<tr>
<td>Selling expenses</td>
<td>447</td>
<td>573</td>
</tr>
<tr>
<td>General and administrative expenses</td>
<td>8,821</td>
<td>10,465</td>
</tr>
<tr>
<td>Total SG&amp;A expenses</td>
<td>9,268</td>
<td>11,038</td>
</tr>
<tr>
<td>Operating income or (loss)</td>
<td>35,508</td>
<td>59,141</td>
</tr>
<tr>
<td>Interest expense</td>
<td>(1,020)</td>
<td>(1,826)</td>
</tr>
<tr>
<td>Other expenses</td>
<td>175</td>
<td>11</td>
</tr>
<tr>
<td>Other income items</td>
<td>247</td>
<td>163</td>
</tr>
<tr>
<td>Net income or (loss)</td>
<td>36,600</td>
<td>61,119</td>
</tr>
<tr>
<td>Depreciation/amortization</td>
<td>3,252</td>
<td>7,549</td>
</tr>
<tr>
<td>Estimated cash flow from operations</td>
<td>39,852</td>
<td>68,668</td>
</tr>
</tbody>
</table>

Table continued on next page.

Profitability

As shown in table VI-3a, company-specific changes in the average raw material cost of finished drill pipe producers were mixed; some producers reported their highest average raw material cost in 2008, while others reported their highest average raw material cost in 2009. In contrast, unfinished drill pipe producers all reported their highest average raw material cost in 2008. With respect to conversion costs, several companies confirmed Staff’s general conclusion that the increase in average direct labor and other factory costs, in large part, reflects reduced fixed cost absorption due to lower production/sales.
## Table VI-1a--Continued

Unfinished drill pipe: Results of operations, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>2007</th>
<th>2008</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
<td>2009</td>
<td>2009</td>
</tr>
<tr>
<td><strong>Ratio to net sales (percent)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw material</td>
<td>33.0</td>
<td>33.0</td>
<td>29.5</td>
<td>28.8</td>
</tr>
<tr>
<td>Direct labor</td>
<td>10.2</td>
<td>8.1</td>
<td>16.3</td>
<td>17.3</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>18.6</td>
<td>19.7</td>
<td>44.0</td>
<td>42.0</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>61.8</td>
<td>60.7</td>
<td>89.8</td>
<td>88.1</td>
</tr>
<tr>
<td>Gross profit</td>
<td>38.2</td>
<td>39.3</td>
<td>10.2</td>
<td>11.9</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>7.9</td>
<td>6.2</td>
<td>12.4</td>
<td>12.4</td>
</tr>
<tr>
<td>Operating income or (loss)</td>
<td>30.3</td>
<td>33.1</td>
<td>(2.2)</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Net income or (loss)</td>
<td>31.2</td>
<td>34.2</td>
<td>(1.8)</td>
<td>(0.7)</td>
</tr>
<tr>
<td><strong>Unit value (dollars per short ton)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total net sales</td>
<td>1,492</td>
<td>1,981</td>
<td>1,622</td>
<td>1,625</td>
</tr>
<tr>
<td>Cost of goods sold:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw material</td>
<td>492</td>
<td>653</td>
<td>478</td>
<td>468</td>
</tr>
<tr>
<td>Direct labor</td>
<td>153</td>
<td>160</td>
<td>264</td>
<td>282</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>277</td>
<td>390</td>
<td>714</td>
<td>682</td>
</tr>
<tr>
<td>Total cost of goods sold</td>
<td>923</td>
<td>1,203</td>
<td>1,456</td>
<td>1,431</td>
</tr>
<tr>
<td>Gross profit</td>
<td>570</td>
<td>778</td>
<td>165</td>
<td>193</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>118</td>
<td>122</td>
<td>200</td>
<td>201</td>
</tr>
<tr>
<td>Operating income or (loss)</td>
<td>452</td>
<td>656</td>
<td>(35)</td>
<td>(8)</td>
</tr>
</tbody>
</table>

| Number of producers reporting |        |        |               |        |      |
| Operating losses             | 0      | 0      | 2             | 2      | 0    |
| Data                         | 3      | 3      | 3             | 3      | 3    |

Source: Compiled from data submitted in response to Commission questionnaires.

In addition, two companies indicated that lower production volumes also impacted variable costs. Table VI-1a (unfinished drill pipe financial results) compared to table VI-1b (finished drill pipe financial results) shows that in 2009 the COGS-to-sales ratio for unfinished drill pipe was substantially

---

17 E-mail with attachments from *** to USITC auditor, November 9, 2010. E-mail with attachment from *** to USITC auditor, October 25, 2010. E-mail with attachment from *** to USITC auditor, October 26, 2010. E-mail with attachments from *** to USITC auditor, October 27, 2010. E-mail with attachment from *** to USITC auditor, November 16, 2010.

18 TMK stated that its ***. E-mail with attachment from *** to USITC auditor, October 25, 2010. According to Timken, ***. E-mail with attachment from *** to USITC auditor, November 16, 2010.
### Table VI-1b
Finished drill pipe: Results of operations, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity (short tons)</th>
<th>Value ($1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total net sales quantity</strong></td>
<td>214,579 197,580 119,837 59,153</td>
<td>60,597</td>
</tr>
<tr>
<td><strong>Total net sales value</strong></td>
<td>1,151,659 1,155,499 791,095 393,558</td>
<td>319,166</td>
</tr>
<tr>
<td><strong>Cost of goods sold:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials</td>
<td>460,514 495,295 371,183 193,957</td>
<td>151,365</td>
</tr>
<tr>
<td>Direct labor</td>
<td>23,150 31,789 26,240 13,579</td>
<td>11,160</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>229,579 194,883 155,445 75,371</td>
<td>57,119</td>
</tr>
<tr>
<td>Total cost of goods sold</td>
<td>713,243 721,967 552,867 282,907</td>
<td>219,644</td>
</tr>
<tr>
<td>Gross profit</td>
<td>438,416 433,532 238,227 110,651</td>
<td>99,522</td>
</tr>
<tr>
<td>Selling expenses</td>
<td>24,606 35,675 35,960 16,189</td>
<td>18,542</td>
</tr>
<tr>
<td>General and administrative expenses</td>
<td>10,716 16,528 16,421 8,615</td>
<td>8,624</td>
</tr>
<tr>
<td>Total SG&amp;A expenses</td>
<td>35,322 52,202 52,380 24,804</td>
<td>27,166</td>
</tr>
<tr>
<td>Operating income(^1)</td>
<td>403,094 381,330 185,847 85,847</td>
<td>72,357</td>
</tr>
<tr>
<td>Interest expense</td>
<td>1,786 1,919 1,932 841</td>
<td>928</td>
</tr>
<tr>
<td>Other expenses</td>
<td>1,821 1,455 7,285 7,912</td>
<td>(1,428)</td>
</tr>
<tr>
<td>Other income items</td>
<td>555 1,043 2,154 91</td>
<td>272</td>
</tr>
<tr>
<td>Net income</td>
<td>400,042 378,998 178,784 77,185</td>
<td>73,129</td>
</tr>
<tr>
<td>Depreciation/amortization</td>
<td>16,322 18,489 19,132 13,278</td>
<td>14,296</td>
</tr>
<tr>
<td>Estimated cash flow from operations</td>
<td>416,364 397,487 197,916 90,464</td>
<td>87,425</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ratio to net sales (percent)</th>
<th>Raw material</th>
<th>40.0 42.9 46.9 49.3</th>
<th>47.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct labor</td>
<td>2.0 2.8 3.3 3.5</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Other factory costs</td>
<td>19.9 16.9 19.6 19.2</td>
<td>17.9</td>
<td></td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>61.9 62.5 69.9 71.9</td>
<td>68.8</td>
<td></td>
</tr>
<tr>
<td>Gross profit</td>
<td>38.1 37.5 30.1 28.1</td>
<td>31.2</td>
<td></td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>3.1 4.5 6.6 6.3</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Operating income(^1)</td>
<td>35.0 33.0 23.5 21.8</td>
<td>22.7</td>
<td></td>
</tr>
<tr>
<td>Net income</td>
<td>34.7 32.8 22.6 19.6</td>
<td>22.9</td>
<td></td>
</tr>
</tbody>
</table>

Table continued on next page.
### Table VI-1b—Continued

**Finished drill pipe: Results of operations, 2007-09, January-June 2009, and January-June 2010**

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td><strong>Unit value (dollars per short ton)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total net sales</td>
<td>5,367</td>
<td>5,848</td>
</tr>
<tr>
<td>Cost of goods sold:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw material</td>
<td>2,146</td>
<td>2,507</td>
</tr>
<tr>
<td>Direct labor</td>
<td>108</td>
<td>161</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>1,070</td>
<td>986</td>
</tr>
<tr>
<td>Total cost of goods sold</td>
<td>3,324</td>
<td>3,654</td>
</tr>
<tr>
<td>Gross profit</td>
<td>2,043</td>
<td>2,194</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>165</td>
<td>264</td>
</tr>
<tr>
<td>Operating income(^1)</td>
<td>1,879</td>
<td>1,930</td>
</tr>
</tbody>
</table>

#### Number of producers reporting

<table>
<thead>
<tr>
<th>Operating losses(^1)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8.0</td>
</tr>
</tbody>
</table>

\(^1\)**

Source: Compiled from data submitted in response to Commission questionnaires and supplemental information provided by NOV Grant Prideco.

### Table VI-1c

**Unfinished drill collars: Results of operations, 2007-09, January-June 2009, and January-June 2010**

higher compared to finished drill pipe operations. This pattern is generally consistent with the much larger percentage decline in sales volume reported by unfinished drill pipe producers (88.8 percent between 2007 and 2009) compared to finished drill pipe producers (48.4 percent between 2007 and 2009) and its greater impact on corresponding average costs.

\(^{**}\)\(^{19}\) **

---

\(^{19}\) VAM verification report, pp. 7-8.

VI-7
### Table VI-1d
Finished drill collars: Results of operations, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Total net sales quantity (short tons)</td>
<td>46,908</td>
<td>37,865</td>
</tr>
<tr>
<td>Total net sales value ($1,000)</td>
<td>153,993</td>
<td>148,745</td>
</tr>
<tr>
<td>Cost of goods sold:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials</td>
<td>60,281</td>
<td>65,371</td>
</tr>
<tr>
<td>Direct labor</td>
<td>8,964</td>
<td>8,516</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>29,731</td>
<td>26,495</td>
</tr>
<tr>
<td>Total cost of goods sold</td>
<td>98,976</td>
<td>100,382</td>
</tr>
<tr>
<td>Gross profit</td>
<td>55,017</td>
<td>48,363</td>
</tr>
<tr>
<td>Selling expenses</td>
<td>7,230</td>
<td>8,766</td>
</tr>
<tr>
<td>General and administrative expenses</td>
<td>1,456</td>
<td>1,794</td>
</tr>
<tr>
<td>Total SG&amp;A expenses</td>
<td>8,686</td>
<td>10,560</td>
</tr>
<tr>
<td>Operating income¹</td>
<td>46,331</td>
<td>37,803</td>
</tr>
<tr>
<td>Interest expense</td>
<td>167</td>
<td>286</td>
</tr>
<tr>
<td>Other expenses</td>
<td>570</td>
<td>838</td>
</tr>
<tr>
<td>Other income items</td>
<td>61</td>
<td>92</td>
</tr>
<tr>
<td>Net income</td>
<td>45,655</td>
<td>36,771</td>
</tr>
<tr>
<td>Depreciation/amortization</td>
<td>3,074</td>
<td>3,648</td>
</tr>
<tr>
<td>Estimated cash flow from operations</td>
<td>48,729</td>
<td>40,419</td>
</tr>
<tr>
<td>Ratio to net sales (percent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw material</td>
<td>39.1</td>
<td>43.9</td>
</tr>
<tr>
<td>Direct labor</td>
<td>5.8</td>
<td>5.7</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>19.3</td>
<td>17.8</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>64.3</td>
<td>67.5</td>
</tr>
<tr>
<td>Gross profit</td>
<td>35.7</td>
<td>32.5</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>5.6</td>
<td>7.1</td>
</tr>
<tr>
<td>Operating income¹</td>
<td>30.1</td>
<td>25.4</td>
</tr>
<tr>
<td>Net income</td>
<td>29.6</td>
<td>24.7</td>
</tr>
</tbody>
</table>

Table continued on next page.
### Table VI-1d—Continued

**Finished drill collars: Results of operations, 2007-09, January-June 2009, and January-June 2010**

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>January-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2008</td>
</tr>
<tr>
<td>Unit value (dollars per short ton)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total net sales</td>
<td>3,283</td>
<td>3,928</td>
</tr>
<tr>
<td>Cost of goods sold:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw material</td>
<td>1,285</td>
<td>1,726</td>
</tr>
<tr>
<td>Direct labor</td>
<td>191</td>
<td>225</td>
</tr>
<tr>
<td>Other factory costs</td>
<td>634</td>
<td>700</td>
</tr>
<tr>
<td>Total cost of goods sold</td>
<td>2,110</td>
<td>2,651</td>
</tr>
<tr>
<td>Gross profit</td>
<td>1,173</td>
<td>1,277</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>185</td>
<td>279</td>
</tr>
<tr>
<td>Operating income(^1)</td>
<td>988</td>
<td>998</td>
</tr>
</tbody>
</table>

**Number of producers reporting**

<table>
<thead>
<tr>
<th>Operating losses</th>
<th>0</th>
<th>0</th>
<th>1</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

\(^1\) ***.

**Source:** Compiled from data submitted in response to Commission questionnaires and supplemental information provided by NOV Grant Prideco.

### Table VI-2a

**Unfinished and finished drill pipe: Results of operations, by firm, 2007-09, January-June 2009, and January-June 2010**

* * * * * * * *

### Table VI-2b

**Unfinished and finished drill collars: Results of operations, by firm, 2007-09, January-June 2009, and January-June 2010**

* * * * * * * *
Table VI-3a
Unfinished drill pipe: Variance analysis of financial results, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>Jan.-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007-09</td>
<td>2007-08</td>
</tr>
<tr>
<td>Total net sales:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price variance</td>
<td>1,140</td>
<td>44,059</td>
</tr>
<tr>
<td>Volume variance</td>
<td>(104,067)</td>
<td>17,338</td>
</tr>
<tr>
<td>Total net sales variance</td>
<td>(102,927)</td>
<td>61,397</td>
</tr>
<tr>
<td>Cost of sales:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>127</td>
<td>(14,469)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>34,336</td>
<td>(5,721)</td>
</tr>
<tr>
<td>Net raw material variance</td>
<td>34,463</td>
<td>(20,190)</td>
</tr>
<tr>
<td>Direct labor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(985)</td>
<td>(619)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>10,657</td>
<td>(1,776)</td>
</tr>
<tr>
<td>Net direct labor variance</td>
<td>9,672</td>
<td>(2,395)</td>
</tr>
<tr>
<td>Other factory costs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(3,857)</td>
<td>(10,188)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>19,332</td>
<td>(3,221)</td>
</tr>
<tr>
<td>Net other factory cost</td>
<td>15,475</td>
<td>(13,409)</td>
</tr>
<tr>
<td>Net cost of sales:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(4,715)</td>
<td>(25,277)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>64,325</td>
<td>(10,717)</td>
</tr>
<tr>
<td>Total net cost of sales</td>
<td>59,610</td>
<td>(35,994)</td>
</tr>
<tr>
<td>Gross profit variance</td>
<td>(43,317)</td>
<td>25,403</td>
</tr>
<tr>
<td>SG&amp;A expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expense variance</td>
<td>(728)</td>
<td>(400)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>8,226</td>
<td>(1,370)</td>
</tr>
<tr>
<td>Total SG&amp;A variance</td>
<td>7,498</td>
<td>(1,770)</td>
</tr>
<tr>
<td>Operating income variance</td>
<td>(35,819)</td>
<td>23,633</td>
</tr>
<tr>
<td>Summarized as:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price variance</td>
<td>1,140</td>
<td>44,059</td>
</tr>
<tr>
<td>Net cost/expense variance</td>
<td>(5,443)</td>
<td>(25,677)</td>
</tr>
<tr>
<td>Net volume variance</td>
<td>(31,516)</td>
<td>5,251</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.
### Table VI-3b
Finished drill pipe: Variance analysis of financial results, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>Jan.-June</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-09</td>
<td>2007-08</td>
<td>2008-09</td>
</tr>
<tr>
<td><strong>Value ($1,000)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total net sales:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price variance</td>
<td>147,922</td>
<td>95,080</td>
</tr>
<tr>
<td>Volume variance</td>
<td>(508,486)</td>
<td>(91,239)</td>
</tr>
<tr>
<td>Total net sales variance</td>
<td>(360,564)</td>
<td>3,841</td>
</tr>
<tr>
<td><strong>Cost of sales:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(113,997)</td>
<td>(71,265)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>203,329</td>
<td>36,484</td>
</tr>
<tr>
<td>Net raw material variance</td>
<td>89,331</td>
<td>(34,781)</td>
</tr>
<tr>
<td>Direct labor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(13,311)</td>
<td>(10,473)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>10,221</td>
<td>1,834</td>
</tr>
<tr>
<td>Net direct labor variance</td>
<td>(3,090)</td>
<td>(8,639)</td>
</tr>
<tr>
<td>Other factory costs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(27,231)</td>
<td>16,507</td>
</tr>
<tr>
<td>Volume variance</td>
<td>101,365</td>
<td>18,188</td>
</tr>
<tr>
<td>Net other factory cost</td>
<td>74,134</td>
<td>34,696</td>
</tr>
<tr>
<td><strong>Net cost of sales:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(154,539)</td>
<td>(65,231)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>314,914</td>
<td>56,506</td>
</tr>
<tr>
<td>Total net cost of sales</td>
<td>160,375</td>
<td>(8,725)</td>
</tr>
<tr>
<td>Gross profit variance</td>
<td>(200,188)</td>
<td>(4,884)</td>
</tr>
<tr>
<td>SG&amp;A expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expense variance</td>
<td>(32,654)</td>
<td>(19,679)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>15,595</td>
<td>2,798</td>
</tr>
<tr>
<td>Total SG&amp;A variance</td>
<td>(17,059)</td>
<td>(16,880)</td>
</tr>
<tr>
<td>Operating income variance</td>
<td>(217,247)</td>
<td>(21,764)</td>
</tr>
<tr>
<td><strong>Summarized as:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price variance</td>
<td>147,922</td>
<td>95,080</td>
</tr>
<tr>
<td>Net cost/expense variance</td>
<td>(187,193)</td>
<td>(84,909)</td>
</tr>
<tr>
<td>Net volume variance</td>
<td>(177,976)</td>
<td>(31,935)</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.
In the final phase of these investigations, ***.20 The company also confirmed that, with respect to both the preliminary and final phase, its reported financial results ***.21 According to the company and as indicated above, the primary reason for ***. Based on supplemental information provided by NOV Grant Prideco, ***.22

For both product categories, as indicated above, the net negative volume variance between 2007 and 2009 was the largest single factor explaining full-year declines in absolute profitability, while the price and cost/expense variances varied in relative importance.23 In large part, differences in category-specific relative profitability can be attributed to varying magnitudes of price variances; i.e., while average sales values for both finished and unfinished drill pipe were higher in 2009 compared to 2007, the relatively larger increase in finished drill pipe average sales value offset more of the corresponding increase in average COGS and SG&A expenses. This in turn is reflected in smaller increases in the COGS-to-sales ratio for finished drill pipe as the period progressed and a smaller contraction in corresponding profitability margins. In contrast, with respect to unfinished drill pipe, a smaller increase in average sales value in 2008 compared to 2007, followed by an overall decline in 2009, resulted in only a minimal offset to average COGS and SG&A expenses. This pattern in turn is reflected in the sharp jump in the unfinished drill pipe COGS-to-sales ratio and the corresponding deterioration of that category’s profitability to an operating loss in 2009.24

---

20 E-mail with attachment from *** to USITC auditor, January 11, 2011. Staff notes that NOV’s 2008 10-K distinguishes between fair value acquisition step up adjustments which increased the value of inventory ($89.1 million), as well as established preliminary values for intangible assets. The intangible assets represented trade names, patents, and customer relationships which were collectively valued at $3.7 billion. NOV 2008 10-K, pp. 70-71. While a portion of the amount assigned to trade names was identified as having an indefinite life, the remaining items generally had definite lives and were therefore subject to amortization.

21 According to NOV’s 2009 10-K, “{b}ased on the Company’s indefinite-lived intangible asset impairment analysis performed during the second quarter of 2009, the Company incurred an impairment charge of $147 million in the Petroleum Services & Supplies segment related to a partial impairment of the Company’s Grant Prideco trade name. The impairment charge was primarily the result of the substantial decline in worldwide rig counts through June 2009, declines in forecasts in rig activity for the remainder of 2009, 2010, and 2011 compared to rig count forecast at the beginning of 2009 and a decline in the revenue forecast for the drill pipe business unit for the remainder of 2009, 2010, and 2011.” NOV 2009 10-K, pp. 47. ***. USITC auditor final-phase notes.

22 ***. A review of segment information reported in NOV Grant Prideco’s 2009 10-K also indicates that the asset impairment, while identified in a separate line item, was included in operating income. NOV 2009 10-K, p. 93.

23 The net negative volume variance represents the amount by which operating income declined due to lower sales volume. In addition to the change in underlying sales volume, the net negative volume variance is based on the initial average unit values for sales and costs/expenses.

24 If the combined adjustments reflected in the note to table VI-1b were incorporated into the finished drill pipe variance analysis (table VI-3b), the operating income variance summary would be as follows: ***.

---

VI-12
Table VI-3d
Finished drill collars: Variance analysis of financial results, 2007-09, January-June 2009, and January-June 2010

<table>
<thead>
<tr>
<th>Item</th>
<th>Calendar year</th>
<th>Jan.-June</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007-09</td>
<td>2007-08</td>
</tr>
<tr>
<td>Value ($1,000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total net sales:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price variance</td>
<td>(10,311)</td>
<td>24,439</td>
</tr>
<tr>
<td>Volume variance</td>
<td>(65,244)</td>
<td>(29,687)</td>
</tr>
<tr>
<td>Total net sales variance</td>
<td>(75,555)</td>
<td>(5,248)</td>
</tr>
<tr>
<td>Cost of sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raw materials:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(273)</td>
<td>(16,711)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>25,540</td>
<td>11,621</td>
</tr>
<tr>
<td>Net raw material variance</td>
<td>25,267</td>
<td>(5,090)</td>
</tr>
<tr>
<td>Direct labor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(369)</td>
<td>(1,280)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>3,798</td>
<td>1,728</td>
</tr>
<tr>
<td>Net direct labor variance</td>
<td>3,429</td>
<td>448</td>
</tr>
<tr>
<td>Other factory costs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(109)</td>
<td>(2,496)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>12,596</td>
<td>5,732</td>
</tr>
<tr>
<td>Net other factory cost</td>
<td>12,487</td>
<td>3,236</td>
</tr>
<tr>
<td>Net cost of sales:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost variance</td>
<td>(751)</td>
<td>(20,487)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>41,934</td>
<td>19,081</td>
</tr>
<tr>
<td>Total net cost of sales</td>
<td>41,183</td>
<td>(1,406)</td>
</tr>
<tr>
<td>Gross profit variance</td>
<td>(34,372)</td>
<td>(6,654)</td>
</tr>
<tr>
<td>SG&amp;A expenses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expense variance</td>
<td>298</td>
<td>(3,549)</td>
</tr>
<tr>
<td>Volume variance</td>
<td>3,680</td>
<td>1,675</td>
</tr>
<tr>
<td>Total SG&amp;A variance</td>
<td>3,978</td>
<td>(1,874)</td>
</tr>
<tr>
<td>Operating income variance</td>
<td>(30,394)</td>
<td>(8,528)</td>
</tr>
<tr>
<td>Summarized as:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price variance</td>
<td>(10,311)</td>
<td>24,439</td>
</tr>
<tr>
<td>Net cost/expense variance</td>
<td>(453)</td>
<td>(24,035)</td>
</tr>
<tr>
<td>Net volume variance</td>
<td>(19,630)</td>
<td>(8,932)</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.
Unfinished and Finished Drill Collar Operations

As shown in table VI-2b, unfinished drill collar financial results represent the operations of two companies, Sunbelt and Timken, while finished drill collar financial results were reported by four U.S. producers: NOV Grant Prideco, RDT, Smith, and VAM.\(^{25}\)

Sales Volume and Value

The sales volume for both unfinished and finished drill collars was highest in 2007 and subsequently declined throughout the rest of the period. As shown in table VI-2b, for unfinished drill collars, this pattern was \(*\). With regard to finished drill collars and \(*\), company-specific finished drill collars sales volume followed a pattern of overall decline throughout the period.\(^{26}\)

Average sales values for unfinished drill collars and finished drill collars reflect positive price variances between 2007 and 2008. While both categories reported declines in average sales value in 2009 compared to 2008, finished drill collars generated a substantially larger negative price variance between 2008 and 2009 compared to unfinished drill collars. With some exceptions, company-specific average sales values followed a similar trend. As shown in table VI-2b, \(*\).\(^{27}\)

Profitability

Similar to the pattern reported for drill pipe operations, absolute operating income for both categories of drill collars declined substantially during the full-year period. As shown in the corresponding variance analysis tables (table VI-3c (unfinished drill collars) and table VI-3d (finished drill collars)), negative net volume variances were the principal components contributing to the absolute decline in operating income. In contrast, the relative importance of the other two variances (price and cost/expenses) differed; unfinished drill collars exhibited a net positive price variance between 2007 and 2009, while finished drill collars exhibited a net negative price variance. Although both categories generated net negative cost/expense variances between 2007 and 2009, the combined average COGS and SG&A expenses for unfinished drill collars peaked in 2008 and subsequently declined; \(*\).\(^{28}\) The combined average COGS and SG&A expenses for finished drill collars, on the other hand, continued to increase throughout the period. \(*\).\(^{29}\)\(^{30}\)\(^{31}\)

\(^{25}\)\(^{***}\). USITC auditor final-phase notes.
\(^{26}\)\(^{***}\).
\(^{27}\)\(^{***}\). E-mail with attachment from \(*\) to USITC auditor, November 16, 2010.
\(^{28}\)\(^{***}\).
\(^{29}\) As shown in table VI-1d, the \(*\) unfinished drill collar sales represent tolling activity. Corresponding tolling costs represent conversion costs (direct labor and other factory costs) and therefore would be expected to be lower than average non-tolling COGS which also include raw materials.
\(^{30}\) As indicated in the finished drill pipe section above, \(*\).
\(^{31}\) If the adjustments reflected in the note to table VI-1d were incorporated into the finished drill collar variance analysis (table VI-3d), the operating income variance summary would be as follows: \(*\).
Data on capital expenditures and research and development (“R&D”) expenses related to drill pipe (unfinished and finished) and drill collars (finished and unfinished) are presented in table VI-4. Table VI-5 presents data on assets and return on investment related to unfinished drill pipe and drill collars (aggregated) and finished drill pipe and drill collars (aggregated), respectively.32

As shown in table VI-4, the majority of capital expenditures were reported in the finished drill pipe category with company-specific trends generally reflecting material expansions/upgrades undertaken during the period. The overall decline in the level of capital expenditures during the period examined is also consistent with a decline in corresponding estimated cash flow from operations.33 RDT, with *** of cumulative finished drill pipe capital expenditures, reported that, because of poor market conditions at the end of the full-year period, the installation of equipment related to a second welding line was postponed pending the outcome of these investigations.34

The Commission requested U.S. producers to describe any actual or anticipated negative effects of imports of drill pipe and drill collars, respectively, from China on their firms’ growth, investment, ability to raise capital, existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), or the scale of capital investments. The U.S. producers’ responses are presented in appendix I.

---

32 While additional information on premium finished drill pipe operations (i.e., a subset of overall finished drill pipe) is presented in appendix D, responding companies were generally unable to distinguish capital expenditures specific to this subset of operations. Therefore capital expenditures on premium finished drill pipe, while reflected in the overall finished drill pipe capital expenditures presented here, are not presented separately in appendix D.

33 VAM verification report, p. 8.

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

The Commission analyzes a number of factors in making threat determinations (see 19 U.S.C. § 1677(7)(F)(I)). Information on the nature of the subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V; and information on the effects of imports of the subject merchandise on U.S. producers’ existing development and production efforts is presented in Part VI. Information on inventories of the subject merchandise; foreign producers’ operations, including the potential for “product-shifting;” any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries and the global market.

THE INDUSTRY IN CHINA

Overview

According to the World Steel Association (WSA), China was the leading global producer of seamless tubular products in 2007, accounting for nearly 62 percent (20.0 million short tons) of global production (table VII-1). The WSA reported that, in 2009, China produced 16 times more seamless tubular products than Japan and almost 23 times more than the United States. Regionally, Asia accounted for almost 70 percent of global production of seamless tubular products in 2007.

According to ***, China passed the United States in 2001 to become the world’s leading producer of seamless OCTG, accounting for *** of the world’s production. By 2007, China’s total production of seamless OCTG was *** short tons, more than *** times that of the United States, the world’s second largest producer. *** reported that among the most important developments in the OCTG global supply has been the steady rise of China’s production, especially in seamless OCTG. Industry sources estimated that China’s current capacity for finished drill pipe is approximately 652,000 - *** net tons per year.

---

1 In this section, “seamless tube” refers to a broad range of seamless tubular products, including the subject merchandise. “Seamless OCTG” covers a smaller group of steel tubular goods, such as casing, tubing, coupling stock, and drill pipe. See part I for more details on different categories of steel tubular goods.

2 The WSA, formerly known as the International Iron and Steel Institute (IISI), is an international organization representing approximately 180 steel producers, national and regional steel industry associations, and steel research institutes. WSA members produced about 85 percent of the world’s steel in 2007. WSA provides data for all seamless tubular products, a much broader category than the subject products. The year of 2007 is used here as a benchmark because more countries reported to the WSA in 2007 than in 2008 and 2009 (when several EU countries, including Germany and France, did not provide data to the WSA).

3 ***.

4 *** provides data for seamless OCTG, a category that is broader than the subject products.

5 ***.

<table>
<thead>
<tr>
<th>Region</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>North America</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>1,908</td>
<td>2,338</td>
<td>1,053</td>
</tr>
<tr>
<td>Mexico</td>
<td>732</td>
<td>750</td>
<td>645</td>
</tr>
<tr>
<td>Canada</td>
<td>(1)</td>
<td></td>
<td>280</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>2,640</td>
<td>3,368</td>
<td>1,866</td>
</tr>
<tr>
<td><strong>South America</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>925</td>
<td>553</td>
<td>1,006</td>
</tr>
<tr>
<td>All others</td>
<td>(1)</td>
<td>3</td>
<td>(1)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>925</td>
<td>556</td>
<td>1,006</td>
</tr>
<tr>
<td><strong>European Union (15)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>492</td>
<td>377</td>
<td>335</td>
</tr>
<tr>
<td>Brazil</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td>All others</td>
<td>(1)</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td>Germany</td>
<td>2,011</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td>Italy</td>
<td>933</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td>France</td>
<td>929</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td>All others</td>
<td>522</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>4,886</td>
<td>377</td>
<td>335</td>
</tr>
<tr>
<td><strong>Asia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>20,039</td>
<td>21,152</td>
<td>21,786</td>
</tr>
<tr>
<td>Japan</td>
<td>2,281</td>
<td>2,106</td>
<td>1,342</td>
</tr>
<tr>
<td>All others</td>
<td>22</td>
<td>(1)</td>
<td>(1)</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>22,341</td>
<td>23,258</td>
<td>23,128</td>
</tr>
<tr>
<td><strong>All others</strong></td>
<td>1,595</td>
<td>1,033</td>
<td>2,534</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>32,388</td>
<td>28,592</td>
<td>28,869</td>
</tr>
</tbody>
</table>

¹ Not reported.

Note.—Data originally reported in metric tons, which were converted to short tons by multiplying by 1.1023.

China is the world’s second-leading consumer of oil after the United States, and the third-largest net importer of oil following the United States and Japan.\(^7\) The Chinese government reportedly plans to increase the share of natural gas as part of total national energy consumption to 10 percent by 2030.\(^8\) Currently, most Chinese oil and gas drilling activities are concentrated in onshore fields in the western provinces of Xinjiang, Gansu, and Inner Mongolia.\(^9\) Approximately 65 percent of China’s natural gas production is concentrated in Sichuan Province in the southwest (Changqing Basin), Shaanganning Province (Ordos Basin), the Xinjiang Uygur Autonomous Region, and Qinghai in the northwest (Tarim, Chungeer, and Caidamu Basins).\(^10\)

Shale gas drilling is being explored in many regions in cooperation with global companies. Hess Corp., a Houston-based global energy company, signed a memorandum of understanding with PetroChina to explore shale potentials in Daqing region.\(^11\) In January 2010, PetroChina and Shell announced that they had begun jointly assessing a shale gas field in the Sichuan province.\(^12\) Sunwing Energy Ltd. (a subsidiary of Canada-based Ivanhoe Energy Inc.) recently discovered additional natural gas in Sichuan.\(^13\) Another Canadian energy company, Husky Energy Inc., recently agreed to formally cooperate with China National Offshore Oil Corp. (CNOOC) to explore deepwater gas fields in the South China Sea.\(^14\) In late 2010, Tenaris, the world’s largest producer of seamless pipes, declared that it planned to play a key role in unconventional gas projects in China.\(^15\)

Global leading drill pipe makers have also formed joint ventures with Chinese companies. As indicated in table VII-2, a leading U.S. importer of unfinished drill pipe and producer of finished drill pipe, NOV Grant Prideco, either owns or has formed joint ventures with three Chinese operations. Another leading global drill pipe maker, France’s Vallourec Group, recently purchased a 19.5-percent

---


stake in Tianda Oil Pipe Co., a Chinese producer of seamless line pipe, casing, and tubing (but not drill pipe or drill collars) in order to supply the Chinese market with proprietary-threaded product.16

**Operations on Drill Pipe and Drill Collars**

According to the petitioners, China has excess capacity to produce seamless pipe products (which include unfinished drill pipe).17 Petitioners further report that *** catalogue the existence of *** producers with at least *** friction welding lines (many with a capacity of at least *** tons).18 *** estimates that many of these producers are ***, with an average utilization rate of *** percent.19 Respondents argue that the capacity reported by the Petitioners is overstated as many of the new producers are produce inferior product which they are unqualified to sell in the Chinese or U.S. markets, and that these producers have ceased production or are expected to shut down over the next year.20 Respondents furthermore maintain that Chinese capacity is limited by the supply of “good” green tubes, and other technical factors.21 Respondents contend that the Chinese home market and third-country demand has and will continue to absorb the majority of Chinese production capacity,22 pointing to the increase in China’s exports to markets other than the United States.23 Respondents also note that the largest oil producer in the world, Saudi Aramco, recently made a significant refinery investment in China because of China’s strong demand for oil and its robust economic recovery.24 Petitioners, however, counter that China produces only one-ninth as much natural gas as the United States and less than half as much oil.25

Table VII-2 presents the responding manufacturers/exporters in China, along with their estimated total production and estimated total exports to the United States of drill pipe and drill collars.26 These firms claimed to account for approximately *** percent of total production of unfinished drill pipe in China, *** percent of finished drill pipe production in China, *** percent of unfinished drill collar production in China, and *** percent of finished drill collar production in China.27

---


17 Petition, p. 21.

18 Petitioners’ postconference brief, p. 41 and exh. 6; Petitioners’ posthearing brief, exh. 2. Friction weld lines join the tool joints to the tube body, creating finished drill pipe. Ibid.

19 Petitioners’ posthearing brief, exh. 2.

20 Hearing transcript, pp. 204-208 (Murphy), and Respondents’ posthearing brief, exh. 24.

21 Hearing transcript, p. 294 (Wu) and Respondents’ posthearing brief, pp.11-12.

22 Hearing transcript, p. 200 (Leibowitz) and Respondents’ postconference brief, p. 26.

23 Respondents’ posthearing brief, p. 12.

24 Ibid.

25 Petitioners’ postconference brief, p. 42.

26 *** provided unusable data for unfinished drill pipe. *** reported production of approximately *** tons of unfinished drill pipe, *** of which was exported to the United States.

27 The Commission received 7 of the 12 firms identified by responding Chinese producers as the largest producers of drill pipe in China, and 5 of the 12 firms identified as the largest producers of drill collars in China.
Table VII-2
Drill pipe and drill collars: Reporting manufacturers/exporters in China, and quantities and shares of reported production and exports to the United States, 2009

<table>
<thead>
<tr>
<th>Foreign producer/exporter</th>
<th>2009 Production</th>
<th>2009 Exports to the United States</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantity (short tons)</td>
<td>Share (percent)</td>
</tr>
<tr>
<td>Unfinished drill pipe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jiangyin ¹</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Grant Prideco ²</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Shengli ³</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Wuxi ⁴</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Finished drill pipe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baoshan ⁵</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>DP Master ⁶</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Henan ⁷</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Jiangsu ⁸</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Jiangyin ¹</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>NOV Grant Prideco ²</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Shanxi Fenglei ⁹</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Shanxi Huanjie ¹⁰</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Shengli ³</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Wuxi ⁴</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unfinished drill collars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Henan ⁷</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Jiangsu ⁸</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Finished drill collars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DP Master ⁶</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Henan ⁷</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Jiangsu ⁸</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Jiangyin ¹</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Shanxi Fenglei ⁹</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Shanxi Huanjie ¹⁰</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

Table continued on next page.
Table VII-2--Continued
Drill pipe and drill collars: Reporting manufacturers/exporters in China, and quantities and shares of reported production and exports to the United States, 2009

<table>
<thead>
<tr>
<th>1 ***</th>
<th>2 ***</th>
<th>3 ***</th>
<th>4 ***</th>
<th>5 ***</th>
<th>6 ***</th>
<th>7 ***</th>
<th>8 ***</th>
<th>9 ***</th>
<th>10 ***</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Undefined.</strong></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

Note.– Because of rounding, figures may not add to totals shown.

Source: Compiled from data submitted in response to Commission questionnaires.

Tables VII-3a, VII-3b, VII-3c, and VII-3d present information on Chinese producers’ unfinished drill pipe, finished drill pipe, unfinished drill collars, and finished drill collars operations, respectively, as compiled from responses to the Commission’s questionnaires. Three companies reported production of unfinished drill pipe, although only one, ***, reported exports to the United States, and then only in ***.28 *** accounted for all reported internal consumption of unfinished drill pipe.29 In 2009, internal consumption of drill pipe accounted for *** percent of total shipments of Chinese unfinished drill pipe. All foreign producers reported production of finished drill pipe, with only three firms, ***, reporting no exports to the United States.30 Two firms reported production of unfinished drill collars; both reporting exports to the United States.31 32 The largest producer, ***, reported low capacity utilization rate ranging from *** percent.33 Six firms responded that they produce finished drill collars, with all but one, ***, reporting exports to the United States during 2007-09. A greater percentage of China’s exports of finished drill pipe and finished drill collars were to markets other than the United States. Chinese exports of finished drill pipe to non-U.S. markets increased from 2007 through 2009 by *** percent. During the

---

28 *** reported production of unfinished drill pipe, but did not provide useable data.

29 *** reported that its drill pipe volumes include semi-finished (upset to grade) drill pipe produced and then sold to a related firm, ***, where it is finished. *** foreign producer questionnaire response. *** reported production capacity greater than 100 percent in 2007 and 2008 as a result of ***. Email from ***, November 17, 2010.

30 One firm *** reported capacity utilization greater that 100 percent in 2007, and to a lesser extent in 2008 as a result of being able to add a second shift, in conjunction with an abundance of skilled workers, large number of drill pipe orders, and a good supply of acceptable tool joints. *** noted that this situation was unusual and currently it does not have sufficient skilled workers to full shifts on their existing weld lines. Email from ***, January 20, 2011.

31 *** reported as its U.S. importers, ***, reported importing ***. *** reported as its U.S. importers of unfinished drill collars (****) reported importing ***.

32 Staff believes that a substantial portion of the difference between the reported exports from China to the United States of (1) unfinished drill pipe and (2) finished drill pipe and the reported U.S. imports from China of unfinished drill pipe and finished drill pipe consists of exports by Chinese producers ***, which failed to provide responses to the Commission’s foreign producers’ questionnaire.

33 *** reported the same production capacity for unfinished drill collars and finished drill collars (for which capacity utilization ranged from *** percent).

VII-6
same period, Chinese exports of finished drill pipe to the United States decreased by 28.6 percent. Chinese exports of finished drill collars to non-U.S. markets increased from 2007 through 2009 by *** percent. During the same period, Chinese exports of finished drill pipe to the United States decreased by *** percent.

Table VII-3a

*  *  *  *  *  *  *

---

34 Reported exports from China to the United States during January 2007 - June 2010 were equivalent to approximately 70.7 percent of reported U.S. imports from China during this same period (as opposed to exports of finished drill collars, equivalent to only 28.6 percent of U.S. imports). This calculation excludes imports by *** which consisted of ***.
## Table VII-3b
**Finished drill pipe: Chinese production capacity, production, shipments, and inventories, 2007-09, January-June 2009, January-June 2010, and projected 2010-11**

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity (short tons)</th>
<th>Ratios and shares (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
<td>146,054</td>
<td>200,775</td>
</tr>
<tr>
<td>Production</td>
<td>143,437</td>
<td>163,498</td>
</tr>
<tr>
<td>End of period inventories</td>
<td>14,015</td>
<td>29,750</td>
</tr>
<tr>
<td>Shipments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal consumption</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Home market</td>
<td>75,563</td>
<td>70,064</td>
</tr>
<tr>
<td>Exports to--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The United States</td>
<td>22,327</td>
<td>24,447</td>
</tr>
<tr>
<td>European Union</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Russia</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other markets</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total exports</td>
<td>55,488</td>
<td>76,744</td>
</tr>
<tr>
<td>Total shipments</td>
<td>131,051</td>
<td>146,808</td>
</tr>
<tr>
<td>Capacity utilization</td>
<td>98.2</td>
<td>81.4</td>
</tr>
<tr>
<td>Inventories to production</td>
<td>9.8</td>
<td>18.2</td>
</tr>
<tr>
<td>Inventories to total shipments</td>
<td>10.7</td>
<td>20.3</td>
</tr>
<tr>
<td>Share of total shipments:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal consumption</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Home market</td>
<td>57.7</td>
<td>47.7</td>
</tr>
<tr>
<td>Exports to--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The United States</td>
<td>17.0</td>
<td>16.7</td>
</tr>
<tr>
<td>European Union</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Russia</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other markets</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All export markets</td>
<td>42.3</td>
<td>52.3</td>
</tr>
</tbody>
</table>

Source: Compiled from data submitted in response to Commission questionnaires.
U.S. IMPORTERS’ INVENTORIES OF DRILL PIPE AND DRILL COLLARS

Data collected in these investigations on U.S. importers’ end-of-period inventories of finished drill pipe, unfinished drill pipe, and finished drill collars are presented in tables VII-4a, VII-4b, and VII-4d respectively. There are believed to only relatively small quantities of U.S. imports of unfinished drill collars. Accordingly, table VII-4c is not presented. No U.S. importers reported holding inventories of unfinished drill pipe from China in December 2009, or in June 2010.35 Five U.S. importers reported holding inventories of finished drill pipe from China in December 2009, and seven in June 2010.36 Six U.S. importers reported holding inventories of finished drill collars from China in December 2009 and six in June 2010.

35 Two importers reported inventories in December 2009 and June 2010 of unfinished drill pipe from nonsubject sources, four importers reported inventories of finished drill pipe from nonsubject sources, and one importer reported inventories of finished drill collars from nonsubject sources.

36 *** attributed the increase in inventories in January-June 2010 relative to January-June 2009 to anticipated demand resulting from higher oil prices and the U.S. objective of obtaining self-sufficiency, as well as the perfecting of fracking technology. *** U.S. importers’ questionnaire response. *** pointed to recent announcements by oil companies predicting the doubling of rig capacity in 2011. *** U.S. importers’ questionnaire response.
U.S. IMPORTERS’ CURRENT ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of drill pipe and drill collars from China after June 30, 2010. Table VII-5 presents these data.

Table VII-5
Drill pipe and drill collars: U.S. importers’ current orders of imports, July 2010-June 2011

* * * * * * * *

ANTIDUMPING INVESTIGATIONS IN THIRD-COUNTRY MARKETS

The European Union conducted an investigation on seamless pipe (including drill pipe) from China, and in April 2009, imposed provisional antidumping duties with margins ranging from 35 to 51 percent on seamless pipe “used in a wide variety of applications, like for mechanical uses (including automotive and engineering), in the construction business for piling, for power generation like boiler tubes, as oil country tubular goods (“OCTG”) used for drilling, casing and tubing in the oil industry, and as line pipes to transport liquids or gases.” Subsequently, the European Union imposed definitive antidumping duties ranging from 17 to 39 percent.

Argentina instituted an antidumping duty investigation on steel pipe from China on November 4, 2009. The scope of the investigation includes seamless and welded steel pipe with an external diameter less than 10¾ inches. Alloy, carbon, spiral, and straight-seam steel pipe and CR and HR pipes are included in the investigation. However, Argentine sources indicate that the scope of the investigations is limited to casing and tubing.

41 In addition, Russia reportedly concluded its own antidumping duty investigation on steel pipe from China in October 2009. The investigation found that Chinese market share in Russia of steel pipe increased from 8.9 percent in 2007 to 14 percent in 2008. A five-year antidumping duty of 29.4 percent has been proposed. “Russia May Impose an Anti-dumping Tariff on China’s Steel Pipe.” Alibaba. October 19, 2009, http://news.alibaba.com/article/detail/metalworking/100186174-1-russia-may-impose-an-anti-dumping.html, retrieved on February 4, 2010. No Chinese producer or exporter reported, nor can Staff find evidence of a final action covering drill pipe from China.
INFORMATION ON NONSUBJECT COUNTRIES

Supply Considerations

Seamless tube is produced throughout the world, as noted previously in table VII-1. Between 2005 and 2007, global production of all seamless tubular products increased by 30 percent to 32.4 million short tons. China’s growth in the production of seamless tube has outpaced that of all other global producers. As indicated by WSA data, China’s share of world seamless tubular production increased from about 50 percent in 2005 to 62 percent in 2007. In addition, China seamless production rose by 3 percent during 2008-09. By contrast, U.S. production of seamless tubular products decreased by almost 55 percent in 2009 (table VII-1).

*** publishes historical and forecasted production of seamless OCTG, by region. According to this source, world seamless OCTG production is projected to decline in 2010 from 2008 (table VII-6).

Table VII-6
Seamless OCTG: Projected production, by region, 2008-10

| * | * | * | * | * | * | * | * |

Demand Considerations

Changes in energy prices affect new drilling activities that, in turn, influence worldwide demand for drill pipe. As shown in table VII-7, worldwide drilling fell by almost 31 percent between 2008 and 2009, but recovered by over 30 percent year-on-year in 2010, led primarily by growth in drilling in the United States. *** maintains that drilling activities are mostly concentrated in the big oil and gas producing regions, especially in those countries where oil production is more efficient. In terms of consumption for OCTG, North America has been the world’s leading region. ***, however, contends that the Far East is the next most important region as its share of global consumption is increasing. In this region, China has become the increasingly dominant market.

Industry sources expect domestic shale gas developments to energize drill pipe demand in North America. Companies such as VAM-Drilling, Sumitomo Corp, and several energy companies have invested aggressively in shale gas activities in anticipation of strong demand growth in exploration in North America and in other parts of the world. In addition, leading energy companies including Exxon, ConocoPhillips, and Chevron have also committed to natural-gas exploration activity. MBR, however, cautions that while shale gas play activities remain strong and North America’s rig count high, the prolonged weakness in natural gas prices still persist and may extend into 2011.

---

42 As indicated previously, 2007 is chosen as a benchmark year because many countries failed to report to the WSA for its annual reports published in subsequent years.
43 ***.
44 ***.
45 “VAM Drilling and the Vallourec Group Are Investing to Be Closer to Clients,” VAM Newsletter No. 8, June 2010. Energy companies that have been aggressively involved in shale gas activities reportedly include Exxon, Chevron, Devon Energy, Total, and Hess.
47 MBR-Seamless, November 19, 2010, pp. 1-5.
Table VII-7
Operating rigs: Global and regional annual averages, 2006–10

<table>
<thead>
<tr>
<th>Region</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin America</td>
<td>324</td>
<td>355</td>
<td>384</td>
<td>356</td>
<td>385</td>
</tr>
<tr>
<td>Europe</td>
<td>77</td>
<td>78</td>
<td>98</td>
<td>84</td>
<td>105</td>
</tr>
<tr>
<td>Africa</td>
<td>58</td>
<td>66</td>
<td>65</td>
<td>62</td>
<td>79</td>
</tr>
<tr>
<td>Middle East</td>
<td>238</td>
<td>265</td>
<td>280</td>
<td>252</td>
<td>267</td>
</tr>
<tr>
<td>Far East</td>
<td>228</td>
<td>241</td>
<td>252</td>
<td>243</td>
<td>282</td>
</tr>
<tr>
<td>Canada</td>
<td>470</td>
<td>343</td>
<td>379</td>
<td>221</td>
<td>398</td>
</tr>
<tr>
<td>United States</td>
<td>1,648</td>
<td>1,768</td>
<td>1,878</td>
<td>1,086</td>
<td>1,711</td>
</tr>
<tr>
<td>Total</td>
<td>3,043</td>
<td>3,116</td>
<td>3,336</td>
<td>2,304</td>
<td>3,227</td>
</tr>
</tbody>
</table>

Note.—Baker Hughes data do not include operations in China. However, Respondents provided documentation that places the number of rigs in China at *** in December 2010, and estimate the current rig count to be ***. Respondents’ posthearing brief, exh. 25. While Petitioners estimated that the rig count in 2010 to be *** and *** in 2011. Petitioners’ posthearing brief, exh. 1.

Source: Baker Hughes, Inc., Worldwide Rig Count, January 2011.

Overall worldwide drilling activity is expected to be strong as several leading energy companies, encouraged by the rising crude prices, plan to spend almost half a trillion dollars to explore oil and natural gas in 2011, according to Barclays Capital, an investment bank.48

Leading Nonsubject Countries

The leading producers and exporters of drill pipe and drill collars are Austria, France, Germany, Mexico, and Japan. Table VII-8 summarizes the primary suppliers while table VII-9 presents rig count as a measure of demand.

---

<table>
<thead>
<tr>
<th>Country/Company</th>
<th>Location</th>
<th>Tube capacity (short tons)¹</th>
<th>Related API products</th>
<th>Key products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schoeller Bleckmann Oilfield Technology</td>
<td>Ternitz</td>
<td>NA</td>
<td>7-1</td>
<td>Drill collar, drill stem sub</td>
</tr>
<tr>
<td>GmbH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voestalpine Tubulars</td>
<td>Kinberg Aumehl</td>
<td>*** tons²</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drillstar Industries</td>
<td>Lons</td>
<td>NA</td>
<td>5CT, 7-1</td>
<td>Drill collar, drill stem sub</td>
</tr>
<tr>
<td>Lainé Mécanique</td>
<td>Lescar</td>
<td>NA</td>
<td>7-1</td>
<td>Drill stem sub</td>
</tr>
<tr>
<td>Serco S.A.</td>
<td>Lons</td>
<td>NA</td>
<td>7-1</td>
<td>Drill stem sub</td>
</tr>
<tr>
<td>VAM Drilling-France</td>
<td>Aulnoye</td>
<td>1 million tons³</td>
<td>5DP, 5CT</td>
<td>Green tube, drill pipe, tool joints</td>
</tr>
<tr>
<td>S.A.S.</td>
<td>Cosne-sur-Loire</td>
<td>NA</td>
<td>7-1</td>
<td>Drill collar, drill stem sub, heavy-weight drill pipe</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baker Hughes Inteq GmbH</td>
<td>Celle</td>
<td>NA</td>
<td>7-1</td>
<td>Drill collar, drill stem sub</td>
</tr>
<tr>
<td>Bentec GmbH</td>
<td>Bad Bentheim</td>
<td>NA</td>
<td>5CT, 7-1</td>
<td>Drill stem sub</td>
</tr>
<tr>
<td>Benteler Staht/Rohr GmbH</td>
<td>Dinlaken</td>
<td>*** tons⁴</td>
<td>5DP, 5CT, 5L</td>
<td>Green tube, drill pipe</td>
</tr>
<tr>
<td>ESW - Röhrenwerke GmbH</td>
<td>Eschweiler</td>
<td>*** tons⁴</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
<tr>
<td>Itag L&amp;R GmbH</td>
<td>Celle</td>
<td>NA</td>
<td>5CT, 7-1</td>
<td>Drill collar, drill stem sub, heavy-weight drill pipe</td>
</tr>
<tr>
<td>Itag Valves and Oil Field</td>
<td>Celle</td>
<td>NA</td>
<td>7-1</td>
<td>Drill stem sub</td>
</tr>
<tr>
<td>Perforator GmbH</td>
<td>Wakenried</td>
<td>NA</td>
<td>5DP, 7-1</td>
<td>Drill pipe, tool joint</td>
</tr>
<tr>
<td>Smith Services (Schlumberger)</td>
<td>Celle</td>
<td>NA</td>
<td>7-1</td>
<td>Drill stem sub</td>
</tr>
<tr>
<td>TPS-Technitube Rohrenwerke GmbH</td>
<td>Nerdlon</td>
<td>NA</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
<tr>
<td>V&amp;M Deutschland GmbH</td>
<td>Muelheim an der Ruhr</td>
<td>*** tons⁴</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
</tbody>
</table>

Table continued on next page.
### Table VII-8—Continued

Drill pipe and drill collars: Producers of drill pipe (API-5D) in certain nonsubject countries

<table>
<thead>
<tr>
<th>Country/Company</th>
<th>Location</th>
<th>Tube capacity (short tons)</th>
<th>Related API products</th>
<th>Key products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Japan</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arai Iron Works Co., Ltd.</td>
<td>Edogawa</td>
<td>NA</td>
<td>5CT, 5DP, 5L, 7-1</td>
<td>Drill pipe, tool joint, drill collar, drill stem sub</td>
</tr>
<tr>
<td>JFE Steel Corp.</td>
<td>Handa City</td>
<td>*** tons^5</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
<tr>
<td>Nippon Steel Corp.</td>
<td>Tokyo</td>
<td>*** tons^6</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
<tr>
<td>Petromaterials Corp.</td>
<td>Wakayama</td>
<td>NA</td>
<td>5DP, 5CT, 5L, 7-1</td>
<td>Green tube, drill pipe, tool joint, drill collar, drill stem sub, heavy-weight drill pipe</td>
</tr>
<tr>
<td>Sumitomo Metal Industries Ltd.</td>
<td>Wakayama</td>
<td>*** tons^6</td>
<td>5DP, 5CT, 5L</td>
<td>Drill pipe</td>
</tr>
<tr>
<td>Tenaris/ NKK</td>
<td>Kawasaki</td>
<td>*** tons^6</td>
<td>5DP, 5CT, 5L</td>
<td>Green tube, drill pipe</td>
</tr>
<tr>
<td>Tenaris/Arai Iron Works Co.</td>
<td>Egodawa</td>
<td>NA</td>
<td>5DP</td>
<td>Drill pipe, tool joint</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOV Grant Prideco</td>
<td>Veracruz</td>
<td>NA</td>
<td>5DP, 7-1</td>
<td>Drill pipe, tool joint, drill collar, drill stem sub</td>
</tr>
<tr>
<td>Tenaris Tamsa</td>
<td>Veracruz</td>
<td>*** tons^5</td>
<td>5DP, 5CT, 5L</td>
<td>Green tube, drill pipe</td>
</tr>
</tbody>
</table>

^1 Capacity covers subject and nonsubject products and may overstate the actual data for drill pipe.

^2 ***.


^4 ***.

^5 ***.

^6 ***.

^7 ***.

Note.--API standards: 5DP is for drill pipe; 5L for line pipe; 5CT for casing and tubing; and 7-1 for related equipment including tool joint, heavy-weight drill pipe, and drill collar.

Note.–NA: Not available.

Source: Except as shown in footnotes, all data are from the API Composite List, 2010, found at http://compositlist.api.org/companylist.asp/, retrieved November 10, 2010.
### Table VII-9
Operating rigs: Baker Hughes International Rig Count for selected countries, 2004-10

<table>
<thead>
<tr>
<th>Country</th>
<th>Highest (date)</th>
<th>Lowest (date)</th>
<th>December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>3 (12/09)</td>
<td>0 (8/09)</td>
<td>3</td>
</tr>
<tr>
<td>France</td>
<td>2 (3/08)</td>
<td>0 (10/10)</td>
<td>0</td>
</tr>
<tr>
<td>Germany</td>
<td>12 (11/08)</td>
<td>2 (12/04)</td>
<td>7</td>
</tr>
<tr>
<td>Mexico</td>
<td>130 (9/09)</td>
<td>112 (8/04)</td>
<td>80</td>
</tr>
<tr>
<td>Japan</td>
<td>6 (6/08)</td>
<td>1 (3/10)</td>
<td>1</td>
</tr>
<tr>
<td>Canada</td>
<td>715 (2/06)</td>
<td>72 (5/09)</td>
<td>398</td>
</tr>
<tr>
<td>United States</td>
<td>2,014 (9/08)</td>
<td>895 (6/09)</td>
<td>1,711</td>
</tr>
</tbody>
</table>

Note.—Highest and lowest rig counts are for the last 7 years. Data for China and Korea are not available.


### Austria

Voest-Alpine Tubulars ("VAT") is the leading seamless OCTG manufacturer in Austria. At the end of 2009, Voest-Alpine employed 22,000 workers in its 28 subsidiaries, of which approximately *** are employed at VAT.49

VAT is a joint venture between the NOV Grant Prideco Company and the Austria-based Voestalpine Group. NOV has a 50.01 percent investment in the joint venture which is located in Kindberg, Austria. VAT owns a tubular mill with an annual capacity of approximately 420,000 short tons and is the primary supplier of green tubes for NOV’s U.S. production.50 VAT manufactures drill pipe and line pipe with outside diameters up to 7 inches.51 U.S.-based NOV Grant Prideco is one of the world’s largest manufacturers of drill pipe and related products.52 According to an industry source, VAT is a

---


50 In addition to producing green tubes, VAT also produces seamless tubular products for the OCTG market and other tubular products for the automotive, petrochemical, construction, mining, tunneling, and transportation industries.

51 Voestalpine’s website, found at [http://www.vatubulars.com](http://www.vatubulars.com), retrieved May 4, 2009; and staff telephone interview with ***, May 1, 2009.

high-quality producer focused on the upper end of the market and its production lines are equipped with modern automatic manufacturing facilities.\textsuperscript{53}

Currently, as with many other countries in the EU, Austria must rely on imports for its energy needs and Austria’s domestic drill pipe market is limited since the country has few active rotary rigs. However, some experts believe that, in the future, increasing drilling for shale gas reserve from Austria’s Mikulov plays will help make Austria self-sufficient in natural gas.\textsuperscript{54}

**France**

The WSA reported that France produced approximately 930,000 short tons of seamless tubes in 2007, as shown in table VII-1. According to *** estimate, France produced *** short tons of seamless OCTG in that year.\textsuperscript{55}

Currently, VAM Drilling-France (VAM) is the only drill pipe producer in France. VAM Drilling is part of the oil and gas division of Vallourec & Mannesmann Tubes, a subsidiary of the Vallourec Group. VAM is a global seamless producer supported by annual production of 2.5 million short tons of steel pipe worldwide. This global network includes 15 production facilities for seamless OCTG production in many countries, including the United States.\textsuperscript{56}

VAM claims to be one of the world’s largest fully integrated manufacturers of a wide range of seamless tubular products including drill pipe, tool joint, line pipe, and casing and tubing.\textsuperscript{57} In the United States, VAM Drilling-United States receives green tubes for processing from VAM’s mills in France, Germany, and Brazil. Tool joint forgings are made in France and the United States and are machined and phosphated before friction welding in VAM Drilling’s facilities in Houston and Aulnoye, France.\textsuperscript{58}

Similar to Austria, France currently has no significant oil or natural gas resources and thus no domestic drilling activities (table VII-9). However, shale gas drilling is being explored in France. Recently, Hess Corporation, a U.S. oil company, and its partner, Paris-based Toreador Resources Corp., announced plans to start drilling in the Paris Basin region for shale oil.\textsuperscript{59} In addition, Total, a French energy company, has acquired lands in southern France for shale gas exploration. The National Petroleum Council expects that France will increase the exploration of its shale gas reserve in its national drive for energy self-efficiency in the future.\textsuperscript{60}

\textsuperscript{53} Staff telephone interview with ***, May 1, 2009.


\textsuperscript{55} ***.


\textsuperscript{57} VAM Drilling Catalogue, p. 2.

\textsuperscript{58} VAM Drilling Catalogue, p. 2.


Germany

According to WSA, Germany produced approximately 2 million short tons of seamless pipe and tube in 2007, ranking third in the world, behind China and Japan (table VII-1). Estimates that the country produced 1.5 million short tons of seamless OCTG in that year. There are five known producers of drill pipe in Germany: Benteler Stahl/Rohr GmbH, ESW-Röhrenwerke GmbH, Perforator GmbH, TPS-Technitube Rohrenwerke, and VAM Deutschland GmbH (“VMD”). They also produce other seamless tubular products, including OCTG, boiler tubing, tubing suitable for ball or roller bearings, mechanical tubing, structural tubing, and tube hollows on the same equipment.

Similar to many EU countries, although Germany must currently rely on imports for its energy needs, increasing the search for shale gas deposits in Germany’s Posidonia play could reduce dependence on imported supplies, according to the National Petroleum Council.

Japan

Although Japan is the third largest oil consumer behind the United States and China, it has very limited oil and natural gas resources and is only 16 percent energy self-sufficient. As of December 2010, Japan had only 1 active rotary rig (table VII-9). As such, Japan exports almost all of its drill pipe production and Japanese companies have invested extensively in the search for deposits, including shale gas, in many countries. According to estimates, Japan produced 1.2 million short tons of seamless OCTG in 2007, ranking fourth, behind China, the United States, and Russia. Japan has six manufacturers of drill pipe, including Arai Iron Works, Sumitomo Metal Industries, Nippon Steel, JFE Steel Corp., Petromaterials Corp., and Tenaris, a facility jointly owned by Tenaris and NKK. Most Japanese tube capacity is controlled by major integrated mills.

---

61 ***.
62 VMD is affiliated with seamless pipe producers VAM Star (United States), VAM Brazil (Brazil), VAM France (France), and VA Tubes. These companies are wholly-owned by Vallourec (France).
67 ***.
68 ***.
Mexico

According to WSA, Mexico produced 732,000 short tons of seamless pipe and tube in 2007, as noted in table VII-1. *** estimates that the country produced almost *** short tons of seamless OCTG in that year.69

Tubos de Acero de Mexico (“TAMSA”) is wholly owned by Tenaris and located in Veracruz. It has an annual production capacity of approximately 875,000 short tons of finished products, which include seamless pipe (excluding OCTG), OCTG casing, drill pipe, fittings, mechanical tubing, and automotive components.70 In September 2008, TAMSA announced plans to increase production capacity by installing a new facility capable of producing seamless pipe up to 7 inches in outside diameter.71 The new $1.6 billion pipe mill, which will reportedly include iron and steelmaking facilities, will have an annual production capacity of approximately 500,000 short tons of finished tubular products, and is expected to begin production in 2011.72 Also in Veracruz, a U.S. company, NOV Grant Prideco, has a facility producing drill pipe and accessories as indicated in table VII-8.

According to the U.S. Department of Energy, Mexico is a major non-OPEC oil producer, and state-owned Petroleos Mexicanos (Pemex) is one of the world’s largest oil companies. However with the recent decline in oil production, Pemex is evaluating shale gas exploration in the northern state of Coahuila to reduce its natural gas imports from the United States.73

69 ***.
APPENDIX A

FEDERAL REGISTER NOTICES
Drill Pipe and Drill Collars From China


ACTION: Scheduling of the final phase of countervailing duty and antidumping investigations.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of countervailing duty investigation No. 701–TA–474 (Final) under section 705(b) of the Tariff Act of 1930 (19 U.S.C. 1671d(b)) (the Act) and the final phase of antidumping investigation No. 731–TA–1176 (Final) under section 735(b) of the Act (19 U.S.C. 1673d(b)) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of subsidized and less-than-fair-value imports from China of drill pipe and drill collars, primarily provided for in subheadings 7304.22, 7304.23, and 8431.43 of the Harmonized Tariff Schedule of the United States.

1 For purposes of these investigations, the Department of Commerce has defined the subject
For further information concerning the conduct of this phase of the investigations, hearing procedures, and rules of general application, consult the Commission’s Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

**DATES:** Effective Date: August 18, 2010.


General information concerning the Commission may also be obtained by accessing its Internet server (http://www.usitc.gov). The public record for these investigations may be viewed on the Commission’s electronic docket (EDIS) at http://edis.usitc.gov.

**SUPPLEMENTARY INFORMATION:**

**Background.** The final phase of these investigations is being scheduled as a result of affirmative preliminary determinations by the Department of Commerce that certain benefits which constitute subsidies within the meaning of section 703 of the Act (19 U.S.C. 1671b) are being provided to manufacturers, producers, or exporters in China of drill pipe and drill collars, and that such products are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigations were requested in a petition filed effective December 31, 2009, by VAM Drilling USA Inc., Houston, TX; Rotary Drilling Tools, Beaasley, TX; Texas Steel Conversions, Inc., Houston, TX; TMK IPSCO, Downers Grove, IL; and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL–CIO–CLC, Pittsburgh, PA.

Participation in the investigations and public service list. Persons, including industrial users of the subject merchandise and, if the merchandise is sold at the retail level, representative consumer organizations, wishing to participate in the final phase of these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission’s rules, no later than 21 days prior to the hearing date specified in this notice. A party that filed a notice of appearance during the preliminary phase of the investigations need not file an additional notice of appearance during this final phase. The Secretary will maintain a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list. Pursuant to section 207.7(a) of the Commission’s rules, the Secretary will make BPI gathered in the final phase of these investigations available to authorized applicants under the APO issued in the investigations, provided that the application is made no later than 21 days prior to the hearing date specified in this notice. Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigations. A party granted access to BPI in the preliminary phase of the investigations need not reapply for such access. A BPI service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

**Staff report.** The prehearing staff report in the final phase of these investigations will be placed in the nonpublic record on December 8, 2010, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission’s rules.

**Hearing.** The Commission will hold a hearing in connection with the final phase of these investigations beginning at 9:30 a.m. on January 5, 2011, at the U.S. International Trade Commission Building. Requests to appear at the hearing will be filed in writing with the Secretary to the Commission on or before December 21, 2010. A nonparty who has testimony that may aid the Commission’s deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on December 27, 2010, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.24 of the Commission’s rules. Parties must submit any request to present a portion of their hearing testimony in camera no later than 7 business days prior to the date of the hearing.

**Written submissions.** Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.25 of the Commission’s rules; the deadline for filing is December 15, 2010. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.24 of the Commission’s rules, and posthearing briefs, which must conform with the provisions of section 207.25 of the Commission’s rules. The deadline for filing posthearing briefs is January 12, 2011; witness testimony must be filed no later than three days before the hearing. A person who has not entered an appearance as a party to the investigations may submit a written statement of information pertinent to the subject of the investigations, including statements of support or opposition to the petition, on or before January 11, 2011. On January 31, 2011, the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before February 2, 2011, but such final comments must not contain new factual information and must otherwise comply with section 207.30 of the Commission’s rules. All written submissions must conform with the provisions of section 201.8 of the Commission’s rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission’s rules. The Commission’s rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission’s rules, as amended, 67 FR 68036 (November 8, 2002). Even where electronic filing of a document is permitted, certain documents must also be filed in paper form, as specified in II (C) of the Commission’s Handbook on Electronic Filing Procedures, 67 FR 68168, 68173 (November 8, 2002).

Additional written submissions to the Commission, including requests pursuant to section 201.12 of the Commission’s rules, shall not be accepted unless good cause is shown for accepting such submissions, or unless...
the submission is pursuant to a specific request by a Commissioner or Commission staff.

In accordance with sections 201.16(c) and 207.3 of the Commission’s rules, each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: These investigations are being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission’s rules.

Issued: September 2, 2010.

By order of the Commission.

Marilyn R. Abbott,
Secretary to the Commission.

[FR Doc. 2010–22215 Filed 9–8–10; 8:45 am]

BILLING CODE 7020–02–P
DEPARTMENT OF COMMERCE
International Trade Administration
[A–570–965]

Drill Pipe From the People’s Republic of China: Final Determination of Sales at Less Than Fair Value and Critical Circumstances

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

DATES: Effective Date: January 11, 2011.

SUMMARY: On August 18, 2010, the Department of Commerce (the “Department”) published in the Federal Register the Preliminary Determination of sales at less-than-fair-value (“LTFV”) and critical circumstances, in part, in the antidumping investigation of drill pipe from the People’s Republic of China (“PRC”).1 The period of investigation (“POI”) is April 1, 2009, through September 30, 2009. Based on our analysis of the comments received, we have made changes to the margin calculation for DP-Master Manufacturing Co., Ltd. and Jiangyin Liangda Drill Pipe Co., Ltd. (collectively “the DP-Master Group”), Baoshan Iron & Steel Co., Ltd. (“Baoshan”), and Shaanxi Yida Special Steel Imp. & Exp. Co., Ltd. (“Yida”). We continue to find that drill pipe from the PRC is being, or is likely to be, sold in the United States at LTFV as provided in section 735 of the Tariff Act of 1930, as amended (“the Act”). The estimated margins of sales at LTFV are shown in the “Final Determination Margins” section of this notice.

FOR FURTHER INFORMATION CONTACT: Toni Dach, Susan Pulongbarit, or Matthew Renkey, AD/CVD Operations, Office 9, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 482–1655, (202) 482–4031, or (202) 482–2312, respectively.

SUPPLEMENTARY INFORMATION:

Background

The Department conducted sales and factors of production (“FOP”) verifications for the DP-Master Group and Yida, and an FOP verification for Baoshan, from September 20 through October 1, 2010, and sales verification for Baoshan on October 13 and 14, 2010.2 See the “Verification” section below for additional information.3

On November 16, 2010, the Department placed labor wage rate data on the record and invited parties to comment on the Department’s labor wage rate methodology.4

Between November 5, 2010 and November 12, 2010, we received case and rebuttal briefs from Petitioners,5 the government of the PRC (“GOC”), the DP-Master Group, Baoshan, and Yida.

On December 3, 2010, the Department placed additional surrogate value (“SV”) information on the record and invited parties to comment on the Department’s selection of an SV for tool joints,6 and received comments on this data from the DP-Master Group and Petitioners between December 8 and 10, 2010. On December 14, 2010, the Department placed additional SV information on the record regarding galvanizing and zinc values,7 and received comments on this data from Baoshan on December 20, 2010. Also on December 14, 2010, the Department requested additional shipment data from Baoshan, the DP-Master Group, and Yida,8 and received their responses on December 17, 2010.

Analysis of Comments Received

All issues raised in the case and rebuttal briefs by parties to this investigation are addressed in the “Drill Pipe from the People’s Republic of China: Issues and Decision Memorandum for the Final Determination” (“I&D Memo”), dated concurrently with this notice and which is hereby adopted by this notice. A list of the issues which parties raised, and to which we respond in the I&D Memo, are attached to this notice as Appendix I. The I&D Memo is a public document and is on file in the Central Records Unit, Room 7046, and is accessible on the World Wide Web at http://trade.gov/ia/index.asp. The paper copy and electronic version of the memorandum are identical in content.

Changes Since the Preliminary Determination

Based on our analysis of information on the record of this investigation, we have made changes to the DP–Master Group’s, Baoshan’s, and Yida’s margin calculations for the final determination.

The DP–Master Group

• Subsequent to the Preliminary Determination, at the Department’s request, the DP–Master Group provided a revised FOP database, including data from the six-month period immediately prior to the POI. Because this database more accurately reflects the FOPs consumed by the DP–Master Group in producing the merchandise under investigation than the database on the record prior to the Preliminary Determination, we have determined that it is appropriate to use FOP data from the period October 1, 2008, to September 30, 2009, in calculating the DP–Master Group’s margin for the final determination.9
• We have changed the SV for green tubes used in the DP–Master Group’s margin calculation.9

3 The petitioners are VAM Drilling USA, Inc., and Yida, and an FOP verification for Baoshan, from September 20 through October 1, 2010, and sales verification for Baoshan on October 13 and 14, 2010. See the “Verification” section below for additional information.
4 See I&D Memo at Comment 7.
5 See Letters to Baoshan, the DP-Master Group, and Yida dated December 14, 2010.
6 See the DP–Master Group’s September 9, 2010, response to the Department’s 8th supplemental questionnaire (“8th Supplemental Response”).
7 See I&D Memo at Comment 7.
• We have changed the SV for tool joints used in the DP–Master Group’s margin calculation.10
• We have disallowed a by-product offset for brown aluminum oxide in the DP–Master Group’s internal plastic coating process.11
• Based on our findings at verification,12 we are applying partial adverse facts available ("AFA") to the DP–Master Group’s phosphate treatment toller’s consumption of direct materials in its production of the merchandise under investigation.13

Baoshan
• We have used Baoshan’s inputs to its intermediate inputs consumed in the production of the merchandise under investigation, instead of valuing Baoshan’s intermediate inputs.14
• We have determined that it is more appropriate to use only the Jindal Saw, Ltd. ("Jindal Saw") financial statement as the basis for Baoshan’s surrogate financial ratios rather than the average of the Jindal Saw and Tata Steel Limited financial statements.15
• We have not granted Baoshan a by-product offset for its production of pulverized ash, because it did not receive income for the by-product given free of charge to unaffiliated parties.16
• To calculate the SV of iron ore, we have included Baoshan’s purchases of iron ore pellets from its affiliated supplier based on our determination that the affiliate’s prices are reflective of unaffiliated market economy ("ME") prices. Including these purchases will increase Baoshan’s ME purchases to above the 25% threshold. Accordingly, we have weight-averaged Baoshan’s ME purchase prices to value all of its iron ore purchases.17
• At verification, we found that certain of Baoshan’s indirect selling expenses ("ISEs") were not included in its ISEs ratio. We have corrected this for the final determination.18
• At verification, we found that Baoshan did not report credit expenses for the payments it received from its U.S. customer. We have included these credit expenses in Baoshan’s margin for the final determination.19

Yida
• At verification, we found that Yida consumed rubber pads in its production of the merchandise under investigation.20 Therefore, we are including rubber pads as an FOP in calculating Yida’s final margin.21

Scope of Investigation
The products covered by the investigation are steel drill pipe, and steel drill collars, whether or not conforming to American Petroleum Institute ("API") or non-API specifications. Included are finished drill pipe and drill collars without regard to the specific chemistry of the steel (i.e., carbon, stainless steel, or other alloy steel), and without regard to length or outer diameter. Also included are unfinished drill collars (including all drill collar green tubes) and unfinished drill pipe (including drill pipe green tubes, which are tubes meeting the following description: seamless tubes with an outer diameter of less than or equal to 6 ½ inches (168.28 millimeters), containing between 0.16 and 0.75 percent molybdenum, and containing between 0.75 and 1.45 percent chromium). The scope does not include tool joints not attached to the drill pipe, nor does it include unfinished tubes for casing or tubing covered by any other antidumping or countervailing duty order.

The subject products are currently classified in the following Harmonized Tariff Schedule of the United States ("HTSUS") categories: 7304.22.0030, 7304.22.0040, 7304.22.0060, 7304.23.0000, 7304.23.0100, 7304.23.0400, 7304.23.0500, 7304.23.0600, 7304.23.0645, 7304.23.6060, 8431.43.8040 and may also enter under 8431.43.8060, 8431.43.4000, 7304.39.0028, 7304.39.0032, 7304.39.0036, 7304.39.0040, 7304.39.0044, 7304.39.0048, 7304.39.0052, 7304.39.0056, 7304.49.0015, 7304.49.0060, 7304.59.8020, 7304.59.8025, 7304.59.8030, 7304.59.8035, 7304.59.8040, 7304.59.8045, 7304.59.8050, and 7304.59.8055.

While HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of the investigation is dispositive.

Scope Comments
In the Preliminary Determination, the Department indicated that it would solicit additional comments from parties regarding the specifications of drill pipe green tube. Between September 13 and 23, 2010, Petitioners and the DP–Master Group placed additional information on the record of this investigation regarding the characteristics of drill pipe green tube. Additionally, Petitioners and the DP–Master Group commented on the scope of the investigation in their case briefs. Based on analysis of this information and argument, the Department has modified the scope of the investigation to define drill pipe green tubes which were previously described as “green tubes suitable for drill pipe.”22

Verification
As provided in section 782(f) of the Act, we conducted verification of the information submitted by the DP–Master Group, Baoshan, and Yida for use in our final determination.23 We used standard verification procedures, including examination of relevant accounting and production records, as well as original source documents provided by the respondents.

Use of Facts Available
Section 776(a) of the Act provides that if, necessary information is not available on the record, or an interested party: (A) Withholds information that has been requested by the Department; (B) fails to provide such information in a timely manner or in the form or manner requested, subject to subsections 782(c)(1) and (e) of the Act; (C) significantly impedes a determination under the antidumping statute; or (D) provides such information but the information cannot be verified, the Department shall, subject to subsection 782(d) of the Act, use facts otherwise available in reaching the applicable determination.

Section 782(c)(1) of the Act provides that if an interested party “promptly after receiving a request from {the Department} for information, notifies {the Department} that such party is unable to submit the information in the requested form and manner, together with a full explanation and suggested alternative form in which such party is able to submit the information,” the Department may modify its information request requirements to avoid imposing an unreasonable burden on that party.

20 See I&D Memo at Comment 2.
21 See Final Analysis Memorandum for Yida, issued concurrently with this notice; see also I&D Memo at Comment 15.
22 See I&D Memo at Comment 2.
Section 782(d) of the Act provides that, if the Department determines that a response to a request for information does not comply with the request, the Department will inform the person submitting the response of the nature of the deficiency and shall, to the extent practicable, provide that person the opportunity to remedy or explain the deficiency. If that person submits further information that continues to be unsatisfactory, or this information is not submitted within the applicable time limits, the Department may, subject to section 782(e), disregard all or part of the original and subsequent responses, as appropriate.

In reaching a determination under section 735 of the Act, section 782(e) of the Act states that the Department shall not decline to consider information deemed “deficient” under section 782(d) if: (1) The information is submitted by the established deadline; (2) the information can be verified; (3) the information is not so incomplete that it cannot serve as a reliable basis for reaching the applicable determination; (4) the interested party has demonstrated that it acted to the best of its ability; and (5) the information can be used without undue difficulties.

Furthermore, section 776(b) of the Act states that if the administering authority finds that an interested party has not acted to the best of its ability to comply with a request for information, the administering authority may, in reaching its determination, use an inference that is adverse to that party. The adverse inference may be based upon: (1) The petition, (2) a final determination in the investigation under this title, (3) any previous review under section 751 of the Act or determination under section 753 of the Act, or (4) any other information placed on the record.

Baoshan

Following the Preliminary Determination, Baoshan provided additional information to the Department concerning which of its FOPs were consumed to produce intermediate products. Based on this additional information, the Department has decided to value the FOPs Baoshan consumed in producing intermediate inputs in this final determination. However, because Baoshan provided an insufficient description of certain inputs to electricity, namely “power coal” and “light oil,” the Department has determined that, pursuant to section 776(a)(B), it is appropriate to use facts available to value these inputs. Thus, for power coal, the Department has averaged publically-available, contemporaneous, India-wide GTA values for anthracite coal, bituminous coal, and steam coal. We note that, although Baoshan requested that the Department use 2007 Tata Energy Research Institute’s Energy Data Directory & Yearbook (“TERI Data”) to value this input, Baoshan provided neither the source data or the useful heat value of power coal necessary to use TERI Data in valuing this input. Additionally, for light oil, the Department has valued this input using the publicly-available, contemporaneous, and India-wide GTA value for “heavy oil” because it is also used in the electricity production process and no information concerning the value of “light oil” was placed on the record of this investigation.

The DP-Master Group

As noted above, based on findings at verification, the Department is applying partial AFA to the FOPs reported by the D-Master Group’s phosphate treatment toller. Specifically, the DP-Master Group’s unaffiliated phosphate treatment toller’s consumption of FOPs could not be verified by the Department and, pursuant to section 776(a)(2)(B) and (D) of the Act, we have determined that the application of facts available is appropriate. Further, we find that the application of partial AFA is also appropriate because the DP-Master Group failed to act to the best of its ability in responding to the Department’s requests for information and significantly impeded the Department’s ability in responding. Accordingly, we have used the maximum monthly reported consumption for each material input in calculating the total consumption of inputs by the DP-Master Group’s phosphate treatment toller.

Surrogate Country

In the Preliminary Determination, we stated that we selected India as an appropriate surrogate country to use in this investigation because: (1) Pursuant to section 773(c)(4) of the Act, we determined that it is a significant producer of comparable merchandise and it is at a similar level of economic development to the PRC; and (2) we have reliable data from India on the record of this investigation that we can use to value the FOPs. For the final determination, we received no comments and made no changes to our findings with respect to the selection of a surrogate country.

Critical Circumstances

In the Preliminary Determination, the Department determined that, in accordance with section 733(e)(1) of the Act, critical circumstances existed with respect to the DP-Master Group, the separate rate respondents, and the PRC-wide entity. For the final determination, we collected additional shipment data from each of the three respondents being individually investigated. We collected four months of additional shipment data (two months for the base period and two months for the comparison period). Based on this additional data we continue to find that critical circumstances do not exist for Yida and Baoshan.

With respect to the DP-Master Group, we find that the additional data no longer supports a finding of critical circumstances. Specifically, we no longer find that there has been an increase in imports greater than 15 percent when comparing the base period to the comparison period. See Memorandum to The File, from Matthew Renkey, Senior Analyst, through Paul Walker, Acting Program Manager, regarding “Investigation of Drill Pipe from the People’s Republic of China: Final Determination Critical Circumstances Analysis,” dated concurrently with this notice (“Final Critical Circumstances Memo”). Consistent with our Preliminary Determination, the Department relied upon import data from the three individually investigated companies in determining whether there have been massive imports for the separate rate respondents. See Preliminary Determination, 75 FR at 51013. Based on the analysis of the additional data submitted for each of the three individually investigated companies, we no longer find that critical circumstances exist for the separate rate respondents. See Final Critical Circumstances Memo, Attachment 1. Specifically, we no longer find that

---

25 Global Trade Atlas ("GTA").
26 See Id & Memo at Comment 12.
27 See Sections 776(a)(2)(C) and (D) and 776(b) of the Act; see also Certain Circular Welded Carbon Quality Steel Line Pipe from the People’s Republic of China: Final Determination of Sales at Less Than Fair Value, 74 FR 14461, 14456 (March 31, 2009).
28 See Id & Memo at the “Changes from Verification” section, part A.
29 See Preliminary Determination, 75 FR at 51005.
30 As noted in the “Separate Rates” section below, these include Shaxi Fenglei Drilling Tools Co., Ltd.; Jiangsu Shuguang Huayang Drilling Tool, Co. Ltd.; and Jiangyin Long-Bright Drill Pipe Manufacturing Co., Ltd.
31 See Preliminary Determination, 75 FR at 51011.
there has been an increase in imports greater than 15 percent when comparing the base period to the comparison period, which is based on a weighted-average of data for the three individually investigated companies.

Finally, consistent with our Preliminary Determination, and as described below, the PRC-wide entity continues to receive AFA. See Preliminary Determination, 75 FR at 51013. Thus, as AFA, we find that the critical circumstances exist for the PRC-wide entity.

Separate Rates

In proceedings involving non-market-economy ("NME") countries, the Department begins with a rebuttable presumption that all companies within the country are subject to government control and, thus, should be assigned a single antidumping duty deposit rate. It is the Department’s policy to assign all exporters of merchandise subject to an investigation in an NME country this single rate unless an exporter can demonstrate that it is sufficiently independent so as to be entitled to a separate rate. See, e.g., Synthetic Indigo From the People’s Republic of China: Final Determination of Sales at Less Than Fair Value, 62 FR 11825 (March 13, 1997). In the Preliminary Determination, we found that Shaxi Fenglei Drilling Tools Co., Ltd.; Jiangsu Shuguang Huayang Drilling Tool Co., Ltd.; and Jiangyin Long-Bright Drill Pipe Manufacturing Co., Ltd., demonstrated their eligibility for, and were hence assigned, separate-rate status. No party has commented on the eligibility of these companies for separate rate status. Consequently, for the final determination, we continue to find that the evidence placed on the record of this investigation by these companies demonstrates both a de jure and de facto absence of government control with respect to their exports of the merchandise under investigation. Thus, we continue to find that the separate rate respondents are eligible for separate-rate status.

PRC-Wide Entity

In the Preliminary Determination, we treated PRC exporters/producers that did not respond to the Department’s request for information as part of the PRC-wide entity because they did not demonstrate that they operate free of government control. No additional information has been placed on the record with respect to these entities after the Preliminary Determination.

The PRC-wide entity has not provided the Department with the requested information; therefore, pursuant to section 776(a)(2)(A) of the Act, the Department continues to find that the use of facts available is appropriate to determine the PRC-wide rate. Section 776(b) of the Act provides that, in selecting from among the facts otherwise available, the Department may employ an adverse inference if an interested party fails to cooperate by not acting to the best of its ability to comply with requests for information. See, e.g., Synthetic Indigo From the People’s Republic of China: Notice of Final Determination of Sales at Less Than Fair Value, 65 FR 25706, 25707 (May 3, 2000). We find that, because the PRC-wide entity did not respond to our request for information, it has failed to cooperate to the best of its ability and that, in selecting from among the facts otherwise available, an adverse inference is appropriate for the PRC-wide entity. Because we begin with the presumption that all companies within an NME country are subject to government control, and because only the companies listed under the “Final Determination Margins” section below have overcome that presumption, we are applying a single antidumping rate, i.e., the PRC-wide rate, to all other exporters of the merchandise under consideration from the PRC. Such companies did not demonstrate entitlement to a separate rate. The PRC-wide rate applies to all entries of the merchandise under consideration, except for those companies which have received a separate rate.

Corroboration

Section 776(c) of the Act provides that, when the Department relies on secondary information rather than on information obtained in the course of an investigation as facts available, it must, to the extent practicable, corrobamate that information from independent sources reasonably at its disposal. Secondary information is described as “information derived from the petition that gave rise to the investigation or review, the final determination concerning merchandise subject to this investigation, or any previous review under section 751 concerning the merchandise subject to this investigation.” To “corrobamate” means simply that the Department will satisfy itself that the secondary information to be used has probative value. Independent sources used to corrobamate may include, for example, published price lists, official import statistics and customs data, and information obtained from interested parties during the particular investigation. To corrobamate secondary information, the Department will, to the extent practicable, examine the reliability and relevance of the information used.

The AFA rate that the Department used is from the petition; however, we have updated the labor wage rate used to calculate the petition rates. The Department’s practice is not to recalculate dumping margins provided in petitions, but rather to corrobamate the applicable petition rate when applying that rate as AFA. In this case, however, the surrogate wage rate used in the petition was based upon the Department’s methodology under 19 CFR 351.408(c)(3) that the United States Court of Appeals for the Federal Circuit (“CAFC”) found unlawful in Dorbest Ltd. v. United States, 604 F.3d 1363 (Fed. Cir. 2010). In light of the CAFC’s decision, the Department has adjusted the petition rate using the updated SV for labor used in this final determination.

Petitioners’ methodology for calculating the United States price and normal value in the petition is discussed in the Initiation Notice. To corrobamate the AFA margin that we have selected, we compared this margin to the margins we found for the DP-Master Group. We found that the margin of 429.95 percent has probative value because it is in the range of the model-specific margins that we found for the DP-Master Group. Accordingly, we...
find that the rate of 429.95 percent has probative value and is, therefore, corroborated within the meaning of section 776(c) of the Act.

<table>
<thead>
<tr>
<th>Exporter</th>
<th>Producer</th>
<th>Weighted-average margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>The DP-Master Group</td>
<td>The DP-Master Group</td>
<td>69.32</td>
</tr>
<tr>
<td>Baoshan Iron &amp; Steel Co., Ltd</td>
<td>Baoshan Iron &amp; Steel Co., Ltd</td>
<td>de minimis</td>
</tr>
<tr>
<td>Shaxi Yida Special Steel Imp. &amp; Exp. Co., Ltd</td>
<td>Shaxi Yida Special Steel Group Co., Ltd</td>
<td>de minimis</td>
</tr>
<tr>
<td>Shaxi Fenglei Drilling Tools Co., Ltd</td>
<td>Shaxi Fenglei Drilling Tools Co., Ltd</td>
<td>69.32</td>
</tr>
<tr>
<td>Jiangsu Shuguang Huayang Drilling Tool, Co. Ltd</td>
<td>Jiangsu Shuguang Huayang Drilling Tool, Co. Ltd</td>
<td>69.32</td>
</tr>
<tr>
<td>Jiangyin Long-Bright Drill Pipe Manufacturing Co., Ltd</td>
<td>Jiangyin Long-Bright Drill Pipe Manufacturing Co., Ltd</td>
<td>69.32</td>
</tr>
<tr>
<td>PRC-wide Entity</td>
<td></td>
<td>429.95</td>
</tr>
</tbody>
</table>

Disclosure

We will disclose the calculations performed within five days of the date of publication of this notice to parties in this proceeding in accordance with 19 CFR 351.224(b).

Continuation of Suspension of Liquidation

Pursuant to section 735(c)(1)(B) of the Act, we will instruct U.S. Customs and Border Protection (“CBP”) to continue to suspend liquidation of all entries of the merchandise under consideration from the PRC entered, or withdrawn from warehouse, for consumption on or after May 20, 2010, before August 18, 2010, with respect to the DP-Master Group and the separate rate respondents. With regard to the DP-Master Group and the separate rate respondents, we will instruct CBP to continue to require a cash deposit or the posting of a bond equal to the estimated amount by which the normal value exceeds the U.S. price as shown above. These instructions suspending liquidation will remain in effect until further notice.

Additionally, the Department determined in its final determination for the companion countervailing duty (“CVD”) investigation that the DP-Master Group’s merchandise benefited from export subsidies. Therefore, we will instruct CBP to require a cash deposit or posting of a bond equal to the weighted-average amount by which normal value exceeds U.S. price for the DP-Master Group, as indicated above, minus the amount determined to constitute an export subsidy.

With respect to the separate rate respondents, we note that the rate applied in this proceeding as a separate rate is the calculated rate received by the DP-Master Group. As noted above, in the companion CVD investigation, the Department found that the DP-Master Group’s merchandise benefited from export subsidies. Therefore, we will instruct CBP to require a cash deposit or posting of a bond equal to the weighted-average amount by which normal value exceeds U.S. price for the DP-Master Group, as indicated above, minus the amount determined to constitute an export subsidy.

ITC Notification

In accordance with section 735(d) of the Act, we have notified the International Trade Commission (“ITC”) of our final determination of sales at LTFV. Because our final LTFV determination is affirmative, in accordance with section 735(b)(2) of the Act, within 45 days the ITC will determine whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports or sales [or the likelihood of sales] for importation of the merchandise under consideration. If the ITC determines that material injury or threat of material injury does not exist, the proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury exists, the Department will issue an


42 See, e.g., Notice of Final Determination of Sales at Less Than Fair Value: Carbazole Violet Pigment 23 From India, 69 FR 67306, 67307 [November 17, 2004].
antidumping duty order directing CBP to assess antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation.

Notification Regarding APO

This notice also serves as a reminder to the parties subject to administrative protective order (“APO”) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305. Timely notification of return or destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination and notice is issued and published in accordance with sections 735(d) and 777(i)(1) of the Act.

Dated: January 3, 2011.

Ronald K. Lorentzen,
Deputy Assistant Secretary for Import Administration.

Appendix I

General Issues
Comment 1: Double Remedy
Comment 2: Scope of the Investigation
Comment 3: Whether the Department Should Correct the Preliminary Determination
  A. Whether the Department Correctly Calculated the Surrogate Value for Green Tubes
  B. Whether the Department Correctly Calculated Sealer ("SEALRES")
  C. Whether the Department Overlooked Surrogate Values on the Record for Tool Joints
Comment 4: Labor Rate
Comment 5: Selection of Surrogate Financial Ratios
  A. The DP–Master Group
  B. Baoshan

Company-Specific Issues

The DP–Master Group
Comment 6: Selection of a Surrogate Value for Tool Joints
Comment 7: Selection of a Surrogate Value for Green Tubes
Comment 8: Selection of a Surrogate Value for Alloy Steel Bars for Tool Joints
Comment 9: Critical Circumstances

Baoshan
Comment 10: Date of Sale
Comment 11: Market Economy Purchases of Iron Ore Pellet Made through Affiliated Companies
Comment 12: Self-Produced Inputs
Comment 13: By-Product Offsets for Pulverized Fuel Ash
Comment 14: Valuation of Baoshan’s Copper Plating Tolling Factors of Production

Yida
Comment 15: Yida’s Reporting of Rubber Pads as a Packing Material
Comment 16: Yida’s Unreported Overhead Materials Discovered at Verification

Changes From Verification
A. DP–Master Group’s Phosphate Treatment Tolling Factors of Production
B. Baoshan’s Indirect Selling Expenses
C. Baoshan’s Credit Expenses

FR Doc. 2011–390 Filed 1–10–11; 8:45 am
BILLING CODE 3510–DS–P
DEPARTMENT OF COMMERCE

International Trade Administration
[C–570–966]

Drill Pipe From the People’s Republic of China: Final Affirmative
Countervailing Duty Determination, Final Affirmative Critical
Circumstances Determination

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (the Department) determines that countervailable subsidies are being provided to producers and exporters of drill pipe from the People’s Republic of China (the PRC). For information on the estimated subsidy rates, see the “Suspension of Liquidation” section of this notice.

DATES: Effective Date: January 11, 2011.

FOR FURTHER INFORMATION CONTACT: Kristen Johnson or Eric B. Greynolds, AD/CVD Operations, Office 3, Import Administration, U.S. Department of Commerce, Room 4014, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 482–4793 and (202) 482–6071, respectively.

SUPPLEMENTARY INFORMATION:

Background

This investigation covers 40 programs. The respondent in this investigation is the DP Master Group, which consists of the following companies: DP Master Manufacturing Co., Ltd. (DP Master), Jiangyin Sanliang Petroleum Machinery Co., Ltd. (SPM), Jiangyin Liangda Drill Pipe Co., Ltd. (Liangda), Jiangyin Sanliang Steel Pipe Trading Co., Ltd. (SSP), and Jiangyin Chuangxin Oil Pipe Fittings Co., Ltd. (Chuangxin) (collectively, the DP Master Group). Xigang Seamless Steel Tube Co., Ltd. (Xigang) and Wuxi Seamless Pipe Co., Ltd. (WSP) were also selected mandatory respondents; however, both companies reported to the Department that they did not export subject merchandise to the United States during the period of investigation (POI). The petitioners in this investigation are VAM Drilling USA, Inc., Texas Steel Conversion, Inc., Rotary Drilling Tools, TMK IPSCO, and United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL–CIO.

Period of Investigation

The POI for which we are measuring subsidies is January 1, 2009, through December 31, 2009, which corresponds to the PRC’s most recently completed fiscal year at the time we initiated this investigation. See 19 CFR 351.204(b)(2).

Case History

The following events have occurred since the Department signed the Preliminary Determination on June 7, 2010. See Drill Pipe From the People’s Republic of China: Preliminary Affirmative Countervailing Duty Determination, 75 FR 33245 (June 11, 2010) (Preliminary Determination). On June 18, 2010, we issued second supplemental questionnaires to the DP Master Group and the Government of the People’s Republic of China (GOC).1 On June 21, 2010, the Department published in the Federal Register the notice to align this final countervailing duty (CVD) determination with the final antidumping duty determination. See Drill Pipe From the People’s Republic of China: Alignment of Final Countervailing Duty Determination with Final Antidumping Duty Determination, 75 FR 34974 (June 21, 2010).

On June 30, 2010, the DP Master Group made a factual submission regarding technical specifications of casing, tubing, and drill pipe. We received the DP Master Group’s second supplemental questionnaire response on July 7, 2010, and the GOC’s second supplemental questionnaire response on July 9, 2010. On July 7, 8, and 12, 2010, we received requests to hold a hearing from the DP Master Group, petitioners, and the GOC, respectively.


1A public version of these documents and all public documents are available on the public file located in the Department’s Central Records Unit (CRU), Room 7046 of the main Commerce building.

On August 6, 2010, we issued the verification outline to the DP Master Group. On August 17, 2010, petitioners submitted the Department pre-verification comments. On August 19, 2010, we placed on the record of this investigation our analysis of entry documentation obtained from U.S. Customs and Border Protection (CBP) for the products that Xigang and WSP exported to the United States during the POI. Based on our analysis of the entry packages, we found that the documentation supports the claims of non-shipment of subject merchandise to the United States during the POI by Xigang and WSP and, therefore, we did not issue verification outlines to or conduct verification of either company.

On August 20, 2010, we issued a fourth supplemental questionnaire to both the GOC and DP Master Group. We received responses from the GOC and the DP Master Group on September 2, 2010.

On September 3, 2010, petitioners submitted additional factual information regarding green tubes used for drill pipe and certain finished casing and tubing products. On September 6, 2010, the DP Master Group submitted factual information related to income tax information, green tube benchmark, and bank loan benchmark. Subsequently, on September 14, 2010, the DP Master Group filed rebuttal comments to petitioners’ September 3, 2010, factual submission.

We conducted verification of the questionnaire responses submitted by the GOC on September 10, 2010, and by the DP Master Group from September 13 through 15, 2010, in Jiangyin City, Jiangsu Province.

On September 13, 2010, petitioners submitted comments regarding the inclusion of green tubes used in producing drill pipe within the scope of the investigation. On September 23, 2010, the DP Master Group submitted rebuttal comments in regard to petitioners’ scope comments. See Scope Comments section below for additional information.

On October 13, 2010, the DP Master Group requested an extension of time for the filing of new factual information and submitted on the record information regarding the Department’s scope determination of green tubes in this investigation. On October 18 and 21, 2010, we released the verification reports for the meetings we held with the GOC and the DP Master Group, respectively. On October 26, 2010, we issued a post-preliminary determination memorandum and preliminarily found that the following programs provided countervailable export subsidies to the DP Master Group during the POI: Technology to Improve Trade Research and Development and Outstanding Growth Private Enterprise and Small and Medium-sized Enterprises in Jiangyin Fund. Additionally, we preliminarily determined that none of the DP Master Group companies acquired land-use rights for less than adequate remuneration (LTAR) based on being located within a special, economic, or development zone or area during the period December 11, 2001, through December 31, 2009.

Interested parties submitted the case and rebuttal briefs on November 3, 2010, and November 10, 2010, respectively. In their respective case briefs, the GOC, DP Master Group, and petitioners withdrew their requests for a hearing and, therefore, a public hearing was not held in this investigation. On November 29, 2010, Department officials met with counsel for the DP Master Group, who gave a verbal presentation of case/rebuttal brief arguments regarding the following issues: construction of green tube benchmark, calculation of the benefit under the Two Free/Three Half Tax Exemption program, and a grant received by Chuangxin. On December 6, 2010, Department officials met with petitioners’ counsel, who gave a verbal presentation of case/rebuttal brief arguments regarding the following issues: use of tier-one or tier-two benchmark for the provision of green tubes for LTAR program, bestowal of benefit under the Two Free/Three Half Tax program, and sales denominator to use in the calculations for the provision of inputs for LTAR programs.

Scope of Investigation

The products covered by the investigation are steel drill pipe and steel drill collars, whether or not conforming to American Petroleum Institute (API) or non-API specifications. Included are finished drill pipe and drill collars without regard to the specific chemistry of the steel (i.e., carbon, stainless steel, or other alloy steel), and without regard to length or outer diameter. Also included are unfinished drill collars (including all drill collar green tubes) and unfinished drill pipe (including drill pipe green tubes), which are tubes meeting the following description: seamless tubes with an outer diameter of less than or equal to 6 inches (168.28 millimeters), containing between 0.16 and 0.75 percent molybdenum, and containing between 0.75 and 1.45 percent chromium). The scope does not include tool joints not attached to the drill pipe, nor does it include unfinished tubes for casing or tubing covered by any other antidumping (AD) or CVD order.

The subject products are currently classified in the following Harmonized Tariff Schedule of the United States (HTSUS) categories: 7304.22.0030, 7304.22.0045, 7304.22.0060, 7304.23.3000, 7304.23.6030, 7304.23.6045, 7304.23.6060, 8431.43.8040 and may also enter under 8431.43.8060, 8431.43.4000, 7304.39.0028, 7304.39.0032, 7304.39.0036, 7304.39.0040, 7304.39.0044, 7304.39.0048, 7304.39.0052, 7304.39.0056, 7304.49.0015, 7304.49.0060, 7304.59.8020, 7304.59.8025, 7304.59.8030, 7304.59.8035, 7304.59.8040, 7304.59.8045, 7304.59.8050.

See Memorandum to the File through Melissa Skinner, Director, AD/CVD Operations, Office 3, from Eric B. Greynolds, Program Manager, AD/CVD Operations, Office 3 and Kristen Johnson, Trade Analyst, AD/CVD Operations, Office 3, regarding “Verification of Information Submitted by the DP Master Group During the POI: Technology to Improve Trade Research and Development and Outstanding Growth Private Enterprise and Small and Medium-sized Enterprises in Jiangyin Fund” (October 26, 2010).

See Memorandum to Ronald K. Lorentzen, Deputy Assistant Secretary for Import Administration, from Susan H. Kuhbach, Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, regarding “Post-Preliminary Determination Memorandum.” (October 21, 2010).

See Memorandum to Melissa Skinner, Director, AD/CVD Operations, Office 3, from Kristen Johnson, Trade Analyst, AD/CVD Operations, Office 3, regarding “Meeting with Counsel for the DP Master Group.” (November 29, 2010).

See Memorandum to the File through Melissa Skinner, Director, AD/CVD Operations, Office 3, from Kristen Johnson, Trade Analyst, AD/CVD Operations, Office 3, regarding “Meeting with Counsel for Petitioners.” (December 6, 2010).
While HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of the investigation is dispositive.

**Scope Comments**

In the preliminary determination of the concurrent AD investigation, the Department indicated that it would solicit additional comments from parties regarding the specifications of drill pipe green tube. See *Drill Pipe From the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value and Affirmative Determination of Critical Circumstances, and Postponement of Final Determination*, 75 FR 51004, 51005–06 (August 18, 2010); and *Drill Pipe From the People's Republic of China: Notice of Correction to the Preliminary Determination of Sales at Less Than Fair Value and Affirmative Determination of Critical Circumstances, and Postponement of Final Determination*, 75 FR 51014 (August 18, 2010). Between September 13 and 23, 2010, petitioners and the DP Master Group placed additional information on the record of the AD and CVD investigations regarding the characteristics of drill pipe green tube. Additionally, petitioners and the DP Master Group commented on the scope of the investigation in their case briefs submitted on the record of the AD investigation. Based on analysis of that information and arguments, the Department has modified the scope of the AD and CVD investigations to define drill pipe green tubes which were previously described as “green tubes suitable for drill pipe.”

**Injury Test**

Because the PRC is a “Subsidies Agreement Country” within the meaning of section 701(b) of the Tariff Act of 1930, as amended (the Act), the International Trade Commission (the ITC) is required to determine whether imports of the subject merchandise from the PRC materially injure, or threaten material injury to, a U.S. industry. On March 8, 2010, the ITC published its preliminary determination finding that there is a reasonable indication that an industry in the United States is threatened with material injury by reason of imports of drill pipe and drill collars from the PRC that are alleged to be sold in the United States at less than fair value and subsidized by the GOC. See *Drill Pipe and Drill Collars From China*, Investigation Nos. 701–TA–474 and 731–TA–1176 (Preliminary), 75 FR 10501 (March 8, 2010).

**Critical Circumstances**

In the *Preliminary Critical Circumstances Determination*, the Department concluded that critical circumstancess exist with respect to imports of drill pipe from the PRC from the DP Master Group, in accordance with section 703(e)(1) of the Act. We also preliminarily determined, based on the shipment experience of the DP Master Group, that critical circumstances exist as well for imports of drill pipe from the PRC from “all other” exporters, in accordance with section 703(e)(1) of the Act. Our analysis of the results of verification and the comments submitted by interested parties have not lead us to change our preliminary affirmative finding of critical circumstances for the DP Master Group and “all other” exporters. Therefore, in accordance with section 705(a)(2) of the Act, we continue to find that critical circumstances exist with respect to imports of subject merchandise from the PRC from the DP Master Group and “all other” exporters.

**Analysis of Comments Received**

All issues raised in the case and rebuttal briefs by parties to this investigation are addressed in the Memorandum from Christian Marsh, Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, to Ronald K. Lorentzen, Deputy Assistant Secretary for Import Administration, entitled “Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of Drill Pipe from the People’s Republic of China,” [January 3, 2011] (Decision Memorandum), which is hereby adopted by this notice. Attached to this notice as an Appendix is a list of the issues that parties raised and to which we have responded in the Decision Memorandum. Parties can find a complete discussion of all issues raised in this investigation and the corresponding recommendations in this public memorandum, which is on file in the Department’s Central Records Unit, room 7046 of the main Department of Commerce building. In addition, a complete version of the Decision Memorandum can be accessed directly on the Internet at http://trade.gov/ia.

**Suspension of Liquidation**

In accordance with section 705(c)(1)(B)(i)(II) of the Act, we have calculated an individual rate for the DP Master Group. Section 705(c)(5)(A) of the Act states that for companies not investigated, we will determine an all others rate by weighting the individual company subsidy rate of each of the companies investigated by each company’s exports of the subject merchandise to the United States. The all others rate may not include zero and de minimis net subsidy rates, or any rates based solely on the facts available.

Because we have calculated a rate for only the DP Master Group, the rate for the DP Master Group is the all others rate.

We determine the total estimated net countervailable subsidy rates to be:

<table>
<thead>
<tr>
<th>Producer/Exporter</th>
<th>Net subsidy / Ad Valorem rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP Master Manufacturing Co., Ltd. (DP Master), Jiangyin Sanliang Petroleum Machinery Co., Ltd. (SPM); Jiangyin Liangda Drill Pipe Co., Ltd. (Liangda); Jiangyin Sanliang Steel Pipe Trading Co., Ltd. (SSP), and Jiangyin Chuangxin Oil Pipe Fittings Co., Ltd. (Chuangxin) (collectively, DP Master Group)</td>
<td>18.18</td>
</tr>
<tr>
<td>All Others</td>
<td>18.18</td>
</tr>
</tbody>
</table>

As a result of our *Preliminary Determination* and pursuant to section 703(d) of the Act, we instructed CBP to suspend liquidation of all entries of subject merchandise from the PRC which were entered or withdrawn from warehouse, for consumption on or after June 11, 2010, the date of the decision memorandum at comment 2, issued concurrently with this notice.

---

*See companion antidumping duty final determination and accompanying issues and publication of the *Preliminary Determination* in the *Federal Register*. Subsequently, as a result of our *Preliminary Critical Circumstances*
Determination, we instructed CBP to suspend liquidation of all entries of subject merchandise from the PRC which were entered or withdrawn from warehouse, for consumption on or after March 13, 2010, which is 90 days prior to the date of publication in the Federal Register of the Preliminary Determination. In accordance with section 703(d) of the Act, we later issued instructions to CBP to discontinue the suspension of liquidation for CVD purposes for subject merchandise entered, or withdrawn from warehouse, on or after October 9, 2010, but to continue the suspension of liquidation of all entries from June 11, 2010, through October 8, 2010.

We will issue a CVD order and reinstate the suspension of liquidation under section 706(a) of the Act if the ITC issues a final affirmative injury determination, and will require a cash deposit of estimated CVDs for such entries of merchandise in the amounts indicated above. If the ITC determines that material injury, or threat of material injury, does not exist, this proceeding will be terminated and all estimated duties deposited or securities posted as a result of the suspension of liquidation will be refunded or canceled.

ITC Notification

In accordance with section 705(d) of the Act, we will notify the ITC of our determination. In addition, we are making available to the ITC all non-privileged and non-proprietary information related to this investigation.

We will allow the ITC access to all privileged and business proprietary information in our files, provided the ITC confirms that it will not disclose such information, either publicly or under an administrative protective order (APO), without the written consent of the Assistant Secretary for Import Administration.

Return or Destruction of Proprietary Information

In the event that the ITC issues a final negative injury determination, this notice will serve as the only reminder to parties subject to an APO of their responsibility concerning the destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

This determination is published pursuant to sections 705(d) and 777(i) of the Act.

Dated: January 3, 2011.

Ronald K. Lorentzen,
Deputy Assistant Secretary for Import Administration.

Appendix

List of Comments and Issues in the Decision Memorandum

Comment 1: Application of CVD Law to the PRC

Comment 2: Whether Application of the CVD Law to Chinese Imports Violates the Administrative Procedure Act

Comment 3: Double Counting/Double Remedy

Comment 4: Cutoff Date for Identifying Subsidies

Comment 5: Critical Circumstances

Comment 6: Attribute Benefits From Tied Subsidies Only to the Products That Benefit

Comment 7: Apply 2009 Short-Term Interest Rate Benchmark and Adjust Benefit Calculation Based on China’s Inflation Rate

Comment 8: Preferential Loans to the Drill Pipe Industry

Comment 9: Construction of the Green Tube Benchmark

Comment 10: Ministerial Error In the Green Tube Benefit Calculation

Comment 11: The Department Should Account For the Premium Quality of Steel Rounds

Comment 12: Timing of Receipt of the Benefit Under the Two Free, Three Half Tax Exemption for Foreign Invested Enterprises

Comment 13: Tying and Attribution Issues Regarding the Grant Received Under the Outstanding Growth Private Enterprise and Small and Medium-sized Enterprises Development in Jiangxin Fund

[FR Doc. 2011–392 Filed 1–10–11; 8:45 am]
APPENDIX B

HEARING WITNESSES
CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission’s hearing:

**Subject:** Drill Pipe and Drill Collars from China

**Inv. Nos.:** 701-TA-474 and 731-TA-1176 (Final)

**Date and Time:** January 5, 2011 - 9:30 a.m.

Sessions were held in connection with these investigations in the Main Hearing Room (room 101), 500 E Street, S.W., Washington, D.C.

**CONGRESSIONAL APPEARANCES:**

The Honorable Peter J. Visclosky, U.S. Representative, 1st District, Indiana
The Honorable Gene Green, U.S. Representative, 29th District, Texas
The Honorable Jason Altmire, U.S. Representative, 4th District, Pennsylvania

**OPENING REMARKS:**

Petitioners (Roger B. Schagrin, Schagrin Associates)
Respondents (Irene H. Chen, Chen Law Group)

**In Support of the Imposition of**

**Antidumping and Countervailing Duty Orders:**

Schagrin Associates
Washington, D.C.
on behalf of

VAM Drilling USA
Texas Steel Conversion, Inc.
Rotary Drilling Tools
TMK IPSCO
The United Steelworkers
In Support of the Imposition of Antidumping and Countervailing Duty Orders (continued):

**Thomas M. Conway**, Vice President, The United Steel Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union

**Bertrand de Rotalier**, Sales and Marketing Director, VAM Drilling

**Doug Fields**, President, VAM Drilling USA

**Kevin Parks**, Vice President of Sales, VAM Drilling USA

**J. Steve Williamson**, Strategic Developments Director, VAM Drilling USA

**Jim Brand**, Product Manager, Texas Steel Conversion, Inc.

**Kathy Rutledge**, Vice President of Marketing and Business Development, Sunbelt Steel LLC

**Sealy Morris**, President, Rotary Drilling Tools

**L. Scott Barnes**, Vice President and Chief Commercial Officer, TMK IPSCO

**Dr. Robert E. Scott**, Senior International Economist, Economic Policy Institute

**Roger B. Schagrin**

**John W. Bohn** – OF COUNSEL
In Support of the Imposition of
Antidumping and Countervailing Duty Orders (continued):

Skadden, Arps, Slate, Meagher & Flom LLP
Washington, D.C.
on behalf of

United States Steel Corporation

Scott M. Dorn, General Manager – Tubular Marketing,
U.S. Steel Tubular Products, United States
Steel Corporation

William M. Buono, Manager – Market Analysis and
Strategy, U.S. Steel Tubular Products, United
States Steel Corporation

Stephen P. Vaughn ) – OF COUNSEL

In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders:

Lehnardt & Lehnardt
Liberty, MO

and

Chen Law Group
Washington, D.C.

and

Davis & Leiman, P.C.
Washington, D.C.

and

Hogan Lovells USA LLC
Washington, D.C.
on behalf of

Downhole Pipe & Equipment, L.P.
Command Energy, Ltd.
In Opposition of the Imposition of Antidumping and Countervailing Duty Orders (continued):

Charlie Garvey, Chief Executive Officer, Command Energy Services, Ltd.

Jim Mostoway, Vice President of Product Control, Command Energy Services, Ltd.

David Lesco, General Manager, Downhole Pipe & Equipment, L.P.

Patrick Murphy, Director of Sales & Marketing, DP-Master Manufacturing Co., Ltd.

Kitty Wu, Import & Export Manager, DP-Master Manufacturing Co., Ltd.

Bruce Malashevich, President, Economic Consulting Services, LLC

Alexander Cook, Economist, Economic Consulting Services, LLC

Mark B. Lehnardt  )
Irene H. Chen  )
) – OF COUNSEL
Mark D. Davis  )
Lewis E. Leibowitz  )

REBUTTAL/CLOSING REMARKS:

Petitioners (Roger B. Schagrin, Schagrin Associates)
Respondents (Lewis E. Leibowitz, Hogan Lovells USA LLC)
## CONTENTS

### Appendix C: Summary data

<table>
<thead>
<tr>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-1: Unfinished drill pipe and unfinished drill collars</td>
<td>C-4</td>
</tr>
<tr>
<td>C-2: Finished drill pipe and finished drill collars</td>
<td>C-6</td>
</tr>
<tr>
<td>C-3: Drill pipe and drill collars consolidated</td>
<td>C-8</td>
</tr>
<tr>
<td>C-4: Finished drill pipe and finished drill collars (excluding NOV Grand Prideco)</td>
<td>C-10</td>
</tr>
<tr>
<td>C-5: Drill pipe and drill collars consolidated (excluding NOV Grand Prideco)</td>
<td>C-10</td>
</tr>
</tbody>
</table>
### Table C-1
Drill pipe and drill collars unfinished: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. consumption quantity:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers' share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers' share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

| **U.S. consumption value:**              |      |      |      |               |      |      |         |         |         |         |
| Amount                                    | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Producers' share (1)                      | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Importers' share (1)                      | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| China                                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| All other sources                         | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Total imports                             | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |

| **U.S. imports from:**                   |      |      |      |               |      |      |         |         |         |         |
| China:                                    |      |      |      |               |      |      |         |         |         |         |
| Quantity                                  | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Value                                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit value                                | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Ending inventory quantity                 | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| All other sources                         | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Quantity                                  | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Value                                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit value                                | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Ending inventory quantity                 | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| All sources                               | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |

| **U.S. producers':**                      |      |      |      |               |      |      |         |         |         |         |
| Average capacity quantity                 | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Production quantity                       | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Capacity utilization (1)                  | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| U.S. shipments:                           |      |      |      |               |      |      |         |         |         |         |
| Quantity                                  | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Value                                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit value                                | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Export shipments:                         |      |      |      |               |      |      |         |         |         |         |
| Quantity                                  | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Value                                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit value                                | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Ending inventory quantity                 | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Inventories/total shipments (1)           | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Production workers                        | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Hours worked (1,000s)                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Wages paid ($1,000s)                      | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Hourly wages                             | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Productivity (tons/1,000 hours)           | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit labor costs                          | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Net sales                                 |      |      |      |               |      |      |         |         |         |         |
| Quantity                                  | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Value                                     | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit value                                | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Cost of goods sold (COGS)                 | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Gross profit or (loss)                    | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| SG&A expenses                             | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Operating income or (loss)                | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Capital expenditures                      | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit COGS                                 | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit SG&A expenses                        | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Unit operating income or (loss)           | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| COGS/sales (1)                            | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |
| Operating income or (loss)/sales (1)      | ***  | ***  | ***  | ***           | ***  | ***  | ***     | ***     | ***     | ***     |

(1) "Reported data" are in percent and "period changes" are in percentage points.
(2) Not applicable.

Note.—Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

Source: Compiled from data submitted in response to Commission questionnaires.
Table C-1
Drill pipe and drill collars unfinished: Summary data concerning the U.S. market, January-June 2009, July-December 2009, and January-June 2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. consumption quantity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers’ share (1%)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. consumption value:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers’ share (1%)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. imports from:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. producers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average capacity quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Production quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Capacity utilization (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. shipments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Export shipments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Production workers</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hours worked (1,000s)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Wages paid ($1,000s)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Productivity (tons/1,000 hours)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit labor costs</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Net sales</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Cost of goods sold (COGS)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Gross profit or (loss)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Operating income or (loss)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit COGS</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit SG&amp;A expenses</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit operating income or (loss)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>COGS/sales (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Operating income or (loss)/ sales (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

(1) “Reported data” are in percent and “period changes” are in percentage points.
(2) Not applicable.
(3) Not available.

Note.—Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit value and shares are calculated from unrounded figures.

Source: Compiled from data submitted in response to Commission questionnaires.
### Table C-2
Drill pipe and drill collars finished: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

(Quantities=short tons, values=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. consumption quantity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. consumption value:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. imports from:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Unit value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. producers:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average capacity quantity</td>
<td>343,585</td>
<td>358,873</td>
<td>369,389</td>
<td>184,701</td>
<td>184,669</td>
<td>7.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Production quantity</td>
<td>266,343</td>
<td>248,454</td>
<td>138,155</td>
<td>78,347</td>
<td>61,668</td>
<td>-48.1</td>
<td>-6.7</td>
</tr>
<tr>
<td>Capacity utilization (1)</td>
<td>77.5</td>
<td>69.2</td>
<td>57.4</td>
<td>42.4</td>
<td>33.4</td>
<td>-46.1</td>
<td>-8.3</td>
</tr>
<tr>
<td>U.S. shipments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>197,609</td>
<td>148,327</td>
<td>91,363</td>
<td>44,699</td>
<td>42,622</td>
<td>-53.8</td>
<td>-24.9</td>
</tr>
<tr>
<td>Value</td>
<td>952,061</td>
<td>789,665</td>
<td>528,414</td>
<td>268,822</td>
<td>204,746</td>
<td>-44.5</td>
<td>-17.1</td>
</tr>
<tr>
<td>Unit value</td>
<td>$4,818</td>
<td>$5,324</td>
<td>$5,784</td>
<td>$6,014</td>
<td>$4,804</td>
<td>20.0</td>
<td>10.5</td>
</tr>
<tr>
<td>Export shipments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>63,903</td>
<td>90,017</td>
<td>56,034</td>
<td>27,296</td>
<td>26,679</td>
<td>-12.3</td>
<td>-49.9</td>
</tr>
<tr>
<td>Value</td>
<td>361,935</td>
<td>540,375</td>
<td>347,012</td>
<td>172,724</td>
<td>143,829</td>
<td>-4.1</td>
<td>49.3</td>
</tr>
<tr>
<td>Unit value</td>
<td>$5,664</td>
<td>$6,003</td>
<td>$6,193</td>
<td>$6,328</td>
<td>$5,391</td>
<td>9.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>26,223</td>
<td>36,614</td>
<td>40,040</td>
<td>47,963</td>
<td>35,330</td>
<td>52.7</td>
<td>39.6</td>
</tr>
<tr>
<td>Inventories/total shipments (1)</td>
<td>10.0</td>
<td>15.4</td>
<td>27.2</td>
<td>31.3</td>
<td>25.5</td>
<td>17.1</td>
<td>11.8</td>
</tr>
<tr>
<td>Production workers</td>
<td>1,650</td>
<td>1,768</td>
<td>1,204</td>
<td>1,323</td>
<td>1,080</td>
<td>-27.1</td>
<td>7.2</td>
</tr>
<tr>
<td>Hours worked (1,000s)</td>
<td>4,329</td>
<td>4,520</td>
<td>3,098</td>
<td>1,739</td>
<td>1,330</td>
<td>-28.4</td>
<td>4.4</td>
</tr>
<tr>
<td>Wages paid ($1,000s)</td>
<td>16,931</td>
<td>18,066</td>
<td>17,044</td>
<td>16,580</td>
<td>17,641</td>
<td>-5.3</td>
<td>6.7</td>
</tr>
<tr>
<td>Productivity (tons/1,000 hours)</td>
<td>61.3</td>
<td>54.3</td>
<td>44.4</td>
<td>44.8</td>
<td>46.1</td>
<td>-27.5</td>
<td>-11.4</td>
</tr>
<tr>
<td>Unit labor costs</td>
<td>$276.18</td>
<td>$332.40</td>
<td>$383.44</td>
<td>$370.14</td>
<td>$362.84</td>
<td>38.8</td>
<td>20.4</td>
</tr>
</tbody>
</table>

(1) “Reported data” are in percent and “period changes” are in percentage points.
(2) See part vii of this report regarding acquisition-related expenses not reflected in this table.

Note.—Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

Source: Compiled from data submitted in response to Commission questionnaires.
### Table C-2

Drill pipe and drill collars finished: Summary data concerning the U.S. market, January-June 2009, July-December 2009, and January-June 2010

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>U.S. consumption quantity:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>U.S. consumption value:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Producers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Importers’ share (1)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>China</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Total imports</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td><strong>U.S. imports from:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>184,701</td>
<td>184,688</td>
<td>184,669</td>
<td>-0.0</td>
<td>-0.0</td>
</tr>
<tr>
<td>Value</td>
<td>78,347</td>
<td>59,808</td>
<td>61,668</td>
<td>-23.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>U.S. producers:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average capacity quantity</td>
<td>42.4</td>
<td>32.4</td>
<td>33.4</td>
<td>-10.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Production quantity</td>
<td>78,347</td>
<td>59,808</td>
<td>61,668</td>
<td>-23.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Capacity utilization (1)</td>
<td>42.4</td>
<td>32.4</td>
<td>33.4</td>
<td>-10.0</td>
<td>1.0</td>
</tr>
<tr>
<td>U.S. shipments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>268,822</td>
<td>259,592</td>
<td>204,746</td>
<td>-3.4</td>
<td>-21.1</td>
</tr>
<tr>
<td>Value</td>
<td>6,014</td>
<td>5,563</td>
<td>4,804</td>
<td>-7.5</td>
<td>-13.6</td>
</tr>
<tr>
<td>Export shipments:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>27,296</td>
<td>28,738</td>
<td>26,679</td>
<td>5.3</td>
<td>-7.2</td>
</tr>
<tr>
<td>Value</td>
<td>172,724</td>
<td>174,288</td>
<td>143,829</td>
<td>-1.7</td>
<td>-17.5</td>
</tr>
<tr>
<td>Unit value</td>
<td>6,328</td>
<td>6,065</td>
<td>5,391</td>
<td>-4.2</td>
<td>-11.1</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>47,963</td>
<td>40,040</td>
<td>35,330</td>
<td>-16.5</td>
<td>-11.8</td>
</tr>
<tr>
<td>Inventories/total shipments (1)</td>
<td>33.3</td>
<td>26.6</td>
<td>25.5</td>
<td>-6.8</td>
<td>-1.1</td>
</tr>
<tr>
<td>Production workers</td>
<td>1,323(2)</td>
<td>1,080</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours worked (1,000s)</td>
<td>1,739</td>
<td>1,359</td>
<td>1,330</td>
<td>-21.9</td>
<td>-2.1</td>
</tr>
<tr>
<td>Wages paid ($1,000s)</td>
<td>28,828</td>
<td>23,945</td>
<td>23,467</td>
<td>-16.9</td>
<td>-2.0</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>16.58</td>
<td>17.62</td>
<td>17.64</td>
<td>6.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Productivity (tons/1,000 hours)</td>
<td>44.8</td>
<td>44.0</td>
<td>46.1</td>
<td>1.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Unit labor costs</td>
<td>$370.14</td>
<td>$400.78</td>
<td>$382.84</td>
<td>8.3</td>
<td>-4.5</td>
</tr>
<tr>
<td><strong>Net sales:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>71,534</td>
<td>75,337</td>
<td>67,273</td>
<td>5.3</td>
<td>-10.7</td>
</tr>
<tr>
<td>Value</td>
<td>436,629</td>
<td>432,904</td>
<td>338,131</td>
<td>-0.9</td>
<td>-21.9</td>
</tr>
<tr>
<td>Unit value</td>
<td>6,104</td>
<td>5,746</td>
<td>5,026</td>
<td>-5.9</td>
<td>-12.5</td>
</tr>
<tr>
<td>Cost of goods sold (COGS)</td>
<td>315,022</td>
<td>295,638</td>
<td>233,981</td>
<td>-6.2</td>
<td>-20.9</td>
</tr>
<tr>
<td>Gross profit or (loss)</td>
<td>121,607</td>
<td>137,265</td>
<td>104,150</td>
<td>12.9</td>
<td>-24.1</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>27,467</td>
<td>29,621</td>
<td>26,922</td>
<td>7.8</td>
<td>-2.4</td>
</tr>
<tr>
<td>Operating income or (loss) (3)</td>
<td>94,140</td>
<td>107,644</td>
<td>77,229</td>
<td>14.3</td>
<td>-30.1</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit COGS</td>
<td>$4,404</td>
<td>$3,924</td>
<td>$3,478</td>
<td>-10.9</td>
<td>-11.4</td>
</tr>
<tr>
<td>Unit SG&amp;A expenses</td>
<td>$384</td>
<td>$393</td>
<td>$430</td>
<td>2.4</td>
<td>9.3</td>
</tr>
<tr>
<td>Unit operating income or (loss) (3)</td>
<td>$1,316</td>
<td>$1,429</td>
<td>$1,118</td>
<td>8.6</td>
<td>-21.7</td>
</tr>
<tr>
<td>COGS/sales (1)</td>
<td>72.1</td>
<td>68.3</td>
<td>69.2</td>
<td>3.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Operating income or (loss)/ sales (1)</td>
<td>21.6</td>
<td>24.9</td>
<td>22.2</td>
<td>3.3</td>
<td>-2.6</td>
</tr>
</tbody>
</table>

(1) “Reported data” are in percent and “period changes” are in percentage points.
(2) Not available.
(3) See part VI of this report regarding acquisition-related expenses not reflected in this table.

Note: Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit value and shares are calculated from unrounded figures.

Source: Compiled from data submitted in response to Commission questionnaires.
Table C-3
Drill pipe and drill collars consolidated: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

<table>
<thead>
<tr>
<th>Item</th>
<th>Reported data</th>
<th>Period changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. imports from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity . . . . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value . . . . . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity . . . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value . . . . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All sources:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity . . . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value . . . . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. producers:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending inventory quantity . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Production workers . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hours worked (1,000s) . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Wages paid ($1,000s) . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hourly wages . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Gross profit or (loss) . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>SG&amp;A expenses . . . . . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Operating income or (loss) (1). . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Capital expenditures . . . . . . . . . .</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

(1) See part VI of this report regarding acquisition-related expenses not reflected in this table.

Note: Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

Note:**

Source: Compiled from data submitted in response to Commission questionnaires.
Table C-3
Drill pipe and drill collars consolidated: Summary data concerning the U.S. market, January-June 2009, July-December 2009, and January-June 2010

(Quantity=short tons, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per short ton; period changes=percent, except where noted)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. imports from:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All other sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>All sources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Value</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>U.S. producers':</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ending inventory quantity</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Production workers</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hours worked (1,000s)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Wages paid ($1,000s)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Hourly wages</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Gross profit or (loss)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>SG&amp;A expenses</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Operating income or (loss) (2)</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
<td>***</td>
</tr>
</tbody>
</table>

(1) Not available.
(2) See part VI of this report regarding acquisition-related expenses not reflected in this table.

Note.—Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on calendar year basis. Because of rounding, figures may not add to the totals shown. Unit value and shares are calculated from unrounded figures.

Note.—***

Source: Compiled from data submitted in response to Commission questionnaires.
Table C-4
Drill pipe and drill collars finished (excluding NOV Grant Prideco): Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

*  *  *  *  *

Table C-5
Drill pipe and drill collars consolidated (excluding NOV Grant Prideco): Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

*  *  *  *  *

*  *  *  *  *
APPENDIX D

DATA ON PREMIUM PIPE
CONTENTS

Appendix D: Data on premium drill pipe ........................................... D - 1

D-1: Premium drill pipe ........................................................ D - 3
D-2: Finished drill pipe (excluding premium) ....................................... D - 3

Table D-1
Premium drill pipe: Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

*            *            *            *            *            *            *

Table D-2
Finished drill pipe (excluding premium): Summary data concerning the U.S. market, 2007-09, January-June 2009, and January-June 2010

*            *            *            *            *            *            *

D-3
APPENDIX E
SUPPLEMENTAL LIKE PRODUCT INFORMATION
This section is confidential in its entirety.
APPENDIX F

COMPARISON OF FINISHED AND UNFINISHED DRILL PIPE
This section is confidential in its entirety.
APPENDIX G

ADDITIONAL PRICING DATA FOR DRILL PIPE AND DRILL COLLARS
Table G-1
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of U.S. and Chinese products 1, by quarters, and by selling primarily to end users or distributors, January 2007-June 2010

* * * * * *

Table G-2
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of U.S. and Chinese products 2, by quarters, and by selling primarily to end users or distributors, January 2007-June 2010

* * * * * *

Table G-3
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of U.S. and Chinese products 3, by quarters, and by selling primarily to end users or distributors, January 2007-June 2010

* * * * * *

Table G-4
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of U.S. and Chinese products 4, by quarters, and by selling primarily to end users or distributors, January 2007-June 2010

* * * * * *

Table G-5
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of U.S. and Chinese products 5, by quarters, and by selling primarily to end users or distributors, January 2007-June 2010

* * * * * *

Table G-6
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of U.S. and Chinese products 6, by quarters, and by selling primarily to end users or distributors, January 2007-June 2010

* * * * * *

Table G-7
Drill pipe: Weighted-average f.o.b. prices and quantities reported by the purchasers of domestic and imported product 1 and margins of underselling/(overselling), by quarters, January 2007-June 2010

* * * * * *
Table G-8
Drill pipe: Instances of underselling/overselling and the range and average of margins for product 1 reported by purchasers, January 2007-June 2010

* * * * * *

Table G-9
Drill pipe: Weighted-average f.o.b. prices and quantities by individual purchasers for those firms that purchased both domestic and imported product 1 and margins of underselling/(overselling), by quarters, January 2007-June 2010

* * * * * *
APPENDIX H

NONSUBJECT COUNTRY PRICE DATA
One importer (*** reported price data for nonsubject country Dubai for products 1, 2, and 3; one importer (*** reported price data for nonsubject country Austria for product 4; one importer (*** reported price data for nonsubject source “Europe” for product 5; one importer (*** reported price data for nonsubject country France for products 3 and 5; and one importer (*** reported pricing data for nonsubject country Singapore for product 2. In comparing nonsubject country pricing data with U.S. producer pricing data, prices for product imported from nonsubject countries were lower than prices for U.S.-produced product in 20 instances and higher in 20 instances. In comparing nonsubject country pricing data with China country pricing data, prices for product imported from nonsubject countries were lower than prices for product imported from China in 12 instances and higher in 19 instances. Price and quantity data for nonsubject countries are in tables H-1 to H-3 and in shown in figure H-1 with U.S. and subject sources.

Table H-1
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of nonsubject imported products 1-2,\textsuperscript{1} by quarters, January 2007-June 2010

* * * * * *

Table H-2
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of nonsubject imported products 3 and 4,\textsuperscript{1} by quarters, January 2007-June 2010

* * * * * *

Table H-3
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of nonsubject imported product 5,\textsuperscript{1} by quarters, January 2007-June 2010

* * * * * *

Figure H-1
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of domestic and imported product 1, by quarters, January 2007-June 2010

* * * * * *

Figure H-2
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of domestic and imported product 2, by quarters, January 2007-June 2010

* * * * * *

Figure H-3
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of domestic and imported product 3, by quarters, January 2007-June 2010

* * * * * *

Figure H-4
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of domestic and imported product 4, by quarters, January 2007-June 2010

* * * * * *
Figure H-5
Drill pipe and drill collars: Weighted-average f.o.b. prices and quantities of domestic and imported product 5, by quarters, January 2007-June 2010

*  *  *  *  *  *
APPENDIX I

CAPITAL AND INVESTMENT
Unfinished Drill Pipe – Actual Negative Effects

Responses of companies reporting unfinished drill pipe financial results:

Timken ***.
TMK ***.
U.S. Steel ***.

Responses of companies not reporting unfinished drill pipe financial results:

Charles Machine ***.
Drill Pipe International ***.
NOV Grant Prideco ***.
RDT ***.
Smith ***.
Sunbelt ***.
Superior ***.
TSC ***.
VAM ***.

Unfinished Drill Pipe – Anticipated Negative Effects

Responses of companies reporting unfinished drill pipe financial results:

Timken ***.
TMK ***.
U.S. Steel ***.

Responses of companies not reporting unfinished drill pipe financial results:

Charles Machine ***.
Drill Pipe International ***.
NOV Grant Prideco ***.
RDT ***.
Smith ***.
Sunbelt ***.
Superior ***.
TSC ***.
VAM ***.

Finished Drill Pipe – Actual Negative Effects

Responses of companies reporting finished drill pipe financial results:

Charles Machine ***.
Drill Pipe International ***.
NOV Grant Prideco ***.
RDT ***.
Smith ***.
Responses of companies not reporting finished drill pipe financial results:

Sunbelt
Timken
TMK
U.S. Steel

Finished Drill Pipe – Anticipated Negative Effects

Responses of companies reporting finished drill pipe financial results:

Charles Machine
Drill Pipe International
NOV Grant Prideco
RDT
Smith
Superior
TSC
VAM

Responses of companies not reporting finished drill pipe financial results:

Sunbelt
Timken
TMK
U.S. Steel

Unfinished Drill Collars – Actual Negative Effects

Responses of companies reporting unfinished drill collar financial results:

Sunbelt
Timken

Responses of companies not reporting unfinished drill collar financial results:

Charles Machine
Drill Pipe International
NOV Grant Prideco
RDT
Smith
Superior
TSC
TMK
U.S. Steel
Unfinished Drill Collars – Anticipated Negative Effects

Responses of companies reporting unfinished drill collar financial results:

Sunbelt  ***.
Timken  ***.

Responses of companies not reporting unfinished drill collar financial results:

Charles Machine  ***.
Drill Pipe International  ***.
NOV Grant Prideco  ***.
Reamco  ***.
RDT  ***.
Smith  ***.
Superior  ***.
TSC  ***.
TMK  ***.
U.S. Steel  ***.
VAM  ***.

Finished Drill Collars – Actual Negative Effects

Responses of companies reporting finished drill collar financial results:

NOV Grant Prideco  ***.
RDT  ***.
Smith  ***.
VAM  ***.

Responses of companies not reporting finished drill collar financial results:

Charles Machine  ***.
Drill Pipe International  ***.
Sunbelt  ***.
Superior  ***.
TSC  ***.
Timken  ***.
TMK  ***.
U.S. Steel  ***.

Finished Drill Collars – Anticipated Negative Effects

Responses of companies reporting finished drill collar financial results:

NOV Grant Prideco  ***.
RDT  ***.
Responses of companies not reporting finished drill collar financial results:

Charles Machine ***.
Drill Pipe International ***.
Sunbelt ***.
Superior ***.
TSC ***.
Timken ***.
TMK ***.
U.S. Steel ***.