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# **The Trade Effects Associated with U.S. Antidumping in the Steel Industry**

- *Evidence from Three Case Studies*

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## **Abstract**

In this thesis I investigate the potential trade effects associated with three antidumping cases filed by the U.S. steel industry during the first decade of the 21<sup>st</sup> century. The analysis consists of a detailed case study, covering everything from the establishment of dumping margins to the final effects. The empirical results are consistent with expected effects, i.e. decreasing imports from targeted subject countries, increasing imports from non-subject countries and increasing prices in the domestic country. Since the results point towards trade diversion, I discuss what the benefits of filing AD measures are from a petitioner's perspective. The conclusion is that the mere imposition of AD measures has significant intimidating effects on foreign firms. This situation is indirectly stimulated by the non-transparent practices used by the authorities to establish the presence of dumping.

**Keywords:** Dumping, Antidumping, Subject country, Steel, Trade destruction, Trade diversion, U.S.

# Contents

- 1. Introduction ..... 6
  - 1.1 Background ..... 6
  - 1.2 Purpose .....7
- 2. Theory and Practice – How Dumping and Antidumping Works ..... 9
  - 2.1 Dumping ..... 9
    - 2.1.1 Price Discrimination, Below Cost Production and Predatory Pricing ..... 9
  - 2.2 The U.S. Antidumping Process..... 11
    - 2.2.1 Dumping and Injury Investigations ..... 11
- 3. Effects of Antidumping ..... 14
  - 3.1 Quantity Effects..... 14
  - 3.2 Price Effects..... 15
  - 3.3 Additional Effects ..... 15
- 4. Antidumping in the Steel Industry..... 17
  - 4.1 Industry Characteristics ..... 17
  - 4.2 Protection in the Past ..... 17
- 5. U.S. Antidumping - Case Studies.....20
  - 5.1 Case 1: USITC 943-947 - Circular-welded Non-alloy Steel Pipe (2001) .....20
    - 5.1.1 Initiation and Investigations .....20
    - 5.1.2 Final Measure ..... 21
  - 5.2 Case 2: USITC 1116 – Circular-welded Non-alloy Steel Pipe (2007) ..... 22
    - 5.2.1 Initiation and Investigations.....22
    - 5.2.2 Final Measure..... 23
  - 5.3 Case 3: USITC 1024-1028 – Prestressed Concrete Steel Wire Strand (2003)..... 23
    - 5.3.1 Initiation and Investigations.....23
    - 5.3.2 Final Measure .....24
- 6. Trade Effects of Antidumping Cases .....25
  - 6.1 Case 1 and 2: USITC 943-947 and 1116 - Circular-welded Non-alloy Steel Pipe ..... 26
    - 6.1.1 Quantity Effects ..... 26
    - 6.1.2 Price Effects ..... 29
    - 6.1.3 Effects Sum-up ..... 31

6.2 Case 3: USITC 1024-1028 – Prestressed Concrete Steel Wire Strand .....	32
6.2.1 Quantity Effects.....	32
6.2.2 Price Effects.....	34
6.2.3 Effects Sum-up.....	35
7. Summary and Concluding Remarks .....	37
References.....	39
Appendix.....	42

## Abbreviations

AD	Antidumping
ADA	Antidumping Agreement, formally known as: Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade (1994)
CVD	Countervailing Duty
DOC	United States - Department of Commerce
FA	Facts Available
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
GNP	Gross National Product
HTS	Harmonized Tariff Schedule
ITC	United States - International Trade Commission
NME	Non-Market Economy
OECD	Organization for Economic Co-operation and Development
TPM	Trigger Price Mechanism
VER	Voluntary Export Restraint
WTO	World Trade Organization

## **1. Introduction**

This section provides an introduction to the subject of antidumping and its recent development as a trade restricting instrument. In addition, the topic and purpose are discussed here.

### **1.1 Background**

Antidumping (AD) is an instrument that was first used by Canada in the early twentieth century. It is essentially a measure filed by an injured firm, with the purpose of restricting “unfair” import competition caused by dumping. According to the Antidumping Agreement (ADA) implemented by the WTO during the Uruguay round, members are only allowed to impose duties if they can prove: “a) that dumping, [according to the definition presented in ADA article 2.1,] is occurring, b) that the domestic industry producing the like product in the importing country is suffering material injury, and c) that there is causal link between the two” (<http://www.wto.org>). These three requirements define what is considered unfair imports. They also make up the basic principles of the ADA.

Since the seventies AD has been the most common type of trade dispute within the GATT/WTO. In fact, AD has, according to Prusa (2006 p.743), been the subject of more disputes than all other trade statues put together. Early on, the usage was almost exclusively confined to the traditional users; Australia, Canada, the EU and USA. Today, all countries except the poorest ones in Africa and Asia are active users (Prusa 2006 p.748). There are numerous explanations for this spread in AD-usage. One is that the increase in the number of GATT/WTO members has lowered the overall tariff and quota levels and consequently forced member countries to look for alternative means of legal protection. This development, coupled with the rather vague AD regulation stipulated in the ADA, has stimulated the spread significantly (Prusa 2005 p.686-687). Moreover, the public perception encouraged by AD supporters that AD is a tool that restricts “unfair” trade, has added a normative dimension to the AD development. Thus, the use of AD is today easier to justify than other forms of protection. Another explanation for the spread of AD-usage is that these measures are hard to directly retaliate against (Prusa 2005 p.697). If, for example, the WTO finds a measure to be

inconsistent with the regulation, the imposing country can tweak its calculations and impose new duties. Further, AD measures usually target one or a number of products specified by the Harmonized Tariff Schedule (HTS). The HTS system specifies products down to a very specific ten-digit class. This allows firms to file AD measures in a precise way, leaving out products that are not associated with dumping. AD measures are also typically targeted at multiple subject countries rather than just one, although the duties may vary as a consequence of the different dumping margins.

The U.S. steel industry makes an interesting object of study because it has in the past received considerable protection from the government. The industry also possesses characteristics such as high concentration (few domestic firms), high fixed costs and imperfect supply. This has made it more sensitive to changes in prices and therefore a major user of AD measures.

## **1.2 Purpose**

Like in the case of ad valorem tariffs, the goal of the AD instrument is to restrict imports of a certain product from targeted (subject) countries (trade destruction), increase the domestic price and potentially redirect imports towards non-subject imports (trade diversion). Consequently, the expected trade effects are the same as in the case of tariffs. The purpose of this thesis is therefore to study the presence of these AD associated trade effects. This is done by analyzing three AD cases filed by the U.S. steel industry in 2001, 2003 and 2007. The case-associated quantity effects on U.S. imports from subject and non-subject countries, as well as the price effects are then studied in depth with the following questions in mind:

- Is there evidence of quantity effects such as trade destruction and trade diversion, as well as price effects present in the samples?
- In what way do the different decisions throughout the periods of investigation affect trade and prices?
- What are the implications on domestic and foreign producers?

In an effort to assess these questions, I have chosen to study the AD cases and the effects at a disaggregated level. Previous studies have shown clear aggregated effects associated with AD measures. The selection of the case method is intended to provide

a complete picture of the AD instrument, from the establishment of dumping margins to the final effects using the latest data.

In this thesis chapter 2 explains the theory and practice of dumping and antidumping. Chapter 3 describes the expected quantity and price effects as well as a number of additional effects. The characteristics of the U.S. steel industry and its history of protectionism are described in chapter 4. In chapter 5, the three cases are presented. The subsequent chapter, chapter 6, provides an empirical analysis of the effects associated with the three selected cases. Finally, the thesis is summarized and reflected upon in the concluding chapter.

## **2. Theory and Practice – How Dumping and Antidumping Works**

### **2.1 Dumping**

The WTO defines dumping as a practice in which a firm, exports a product at less than its “normal value”, i.e. at a lower price on the export market than on the home market (WTO article 2.1 ADA). Selling goods produced below the cost of production is also considered dumping. The definition of dumping contains characteristics of price discrimination, below-cost production and predatory pricing. However, this is not a definition without flaws as I will explain in the section below.

#### **2.1.1 Price Discrimination, Below Cost Production and Predatory Pricing**

Price discrimination is the practice of charging different prices in different markets. On the global economic arena firms use price discrimination as a means to maximize profits. By charging a low price in the low-cost production country and a high price in the foreign high-cost countries, firms maximize their profit. For this to be a successful strategy firms have to be operating in imperfectly competitive and well-segmented markets with different demand elasticities (Hoekman, Kostecki 2001 p.319). The segmentation of markets is a necessary condition because it eliminates arbitrage profits, by making it impossible to re-import goods from markets with lower prices. Likewise, different demand elasticities are necessary to give grounds for differences in prices. These, for price discrimination, necessary conditions imply the existence of some sort of trade barriers such as transport costs, regulations, tariffs, etc. Price discrimination is not a bad practice nor is it, according to nearly all domestic competition authorities, a prohibited one (Kerr 2006 p.16). It is simply another way for firms to profit maximize, given the above stated conditions.

Like price discrimination, below cost production can very well be justified on economic grounds. After all, it is not prohibited for firms to lose money. In the event of an economic downturn or some other event that will incur losses on firms, the continuation of production can be profit maximizing (loss minimizing). As long as the price of the produced good is higher than the average variable costs, the firm will continue to produce. This makes sense as the continuation of the production will cover some of the fixed costs. In economic theory, fixed costs are often viewed as sunk

(irreversible) costs. This is reasonable because machines and other fixed costs are used to perform a specific task. Once the decision is made to stop the production, the machines rarely correspond to any profit-making. In fact they rather represent a sunk cost in the form of absent revenues. Sunk costs therefore work as an exit barrier, which in the short run give firms the incentive to keep producing until the price falls below the average variable costs (Mankiw 2008 p.295-296). At that point, known as the shutdown criterion, the firm will lose money for every unit it produces and thus the firm will be better off closing down the production altogether (Varian 2006 p.389). Consequently, the practice of below-cost production can be perfectly reasonable in the short run.

Predatory pricing is a type of dumping or practice where a firm is charging significantly lower prices on the export market than on the home market (price discrimination). To be able to charge this low price the firm often produces below the cost of production during a short period of time. The strategy is therefore a combination of price discrimination and below-cost production (Kerr 2006 p.18). Once the competitors have been defeated, the firm can generate higher profits. Thus, predatory pricing is used by firms for the purpose of taking over foreign markets and subsequently establish a global monopoly (Kerr 2006 p.16). Herein lies the difference between predatory pricing and other forms of dumping. This is also why predatory pricing was the original target of the first AD-laws. The practice was, and still is, viewed as unfair and detrimental to an economy. Because of this, predatory pricing is prohibited in most national competition laws (Kerr 2006 p.18).

The definition of dumping in article 2.1 of the ADA, which constitutes the guideline for all members' domestic AD-regulations, states that the existence of *either* price discrimination *or* below-cost production is significant grounds for the determination of dumping (Kerr 2006 p.18). What is legal in the domestic context can therefore be illegal in the international context. The implication of this is that firms can make sound economic profits and still be subjected to affirmative AD investigations from other countries. According to economic theory the only form of dumping that is harmful to an economy and, as a consequence, shall be stopped is predatory dumping. The wider definition of dumping employed by most countries therefore contrasts

economic theory. This problem has been one of the major points of discussion and critique concerning AD among economists worldwide, especially since it has been difficult to determine whether or not global predatory dumping exist in reality.

## **2.2 The U.S. Antidumping Process**

The U.S. AD process is handled by two authorities. The Department of Commerce (DOC) handles the dumping investigation, while the International Trade Commission (ITC) handles the injury investigation. These investigations are run in a parallel fashion. Petitions are submitted to the DOC and the ITC simultaneously and they are only valid if “the domestic producers or workers who support the petition account for: (1) At least 25 percent of the total production of the domestic like product; and (2) [...] more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for or opposition to the petition” (§1673a. (c) (4) (a), subtitle IV, the Tariff Act 1930). A petition usually leads to an initiation of a case and then later to preliminary and final decisions. Both the ITC and the DOC have to reach affirmative decisions in order for the case to reach the next level. If all decisions are affirmative, then AD duties can be imposed at the final stage of the investigations. Finally it is important to mention that the U.S. process follows the regulation outlined by the WTO in the ADA.

### **2.2.1 Dumping and Injury Investigations**

To establish the presence of dumping the DOC has to find the “normal value” of the regarded product. Normal value here corresponds to a fair value of the like product on a market free of dumping and other disturbances. However, finding the true normal value can be a very strenuous exercise as factors like transport costs, differences in market structures and economic policy cloud the “true” normal value.

The most straight forward way of determining the existence of dumping is to simply compare the net price on the U.S. market, excluding transport costs etc., to the net price on the home market of the exporting country (Lindsey 2000 p.5). For this method to be accurate the sales on the domestic market in the exporting country have to be at least five percent of its total sales on the U.S. market, otherwise the market is considered illegitimate (§ 1677b. (b) (II), subtitle IV, the Tariff Act 1930). If this is the

case the DOC lets price data from a suitable third party country work as a template for the absent price data of the exporting country (Lindsey 2000 p.5). In the event of below cost production or missing third country price data, the DOC is allowed to construct a normal value on the basis of estimated total costs of production plus reasonable profits. The constructed value is then compared to the export price on the U.S. market.

Another special case, which is relevant for China and the former Soviet republics, is the nonmarket economy (NME) methodology. The rationale behind this is that firms operating in NMEs are, at least to some extent, influenced by their respective governments. Thus, prices under these circumstances are believed not to be determined by supply and demand, but rather by political factors (Ikenson 2005 p.3). The effect of the NME methodology is that the DOC can skip the other methods of calculating prices and jump straight to method of third party surrogate country comparisons. This means that input costs (wages, capital rents, etc), costs of production (electricity bills, cost of material, etc), economies of scale, size of purchases, mix of purchases and a number of other costs have to be translated and estimated from a surrogate country (Ikenson 2005 p.4-5). The practice of using a surrogate as a proxy when determining the existence of dumping is very important because it tends to increase the dumping margins, reducing NME-firms' abilities to "win" (Ikenson 2005 p.5).

Yet another important methodology is the facts available (FA) method, which is used whenever targeted firms in subject countries supply incorrect information about their domestic prices and costs. If this is the case the DOC can, according to Article VI of the ADA, obtain the information from a secondary source, usually the petition supplied by the U.S. firms (Moore 2006 p.640).

Once the DOC reaches an affirmative decision, i.e. concludes that dumping is occurring the next step is to calculate the dumping margin. This margin is in the simplest of cases equal to the difference between the price in the exporting country and the U.S. price divided by the U.S. price. If for example the price in China is 10 and the Chinese firms charge 8 on the U.S. market, the dumping margin is:  $(10-8)/8 = 25 \%$  (Ikenson, Lindsey 2002 p.3). According to the Tariff Act of 1930, the investigation is to

be put to an end if the margin is found to be *de minimis*, which in this case is less than two percent (§1673b. (b) (3), subtitle IV, the Tariff Act 1930). Once the DOC has reached an affirmative decision the ITC has 45 days to reach a final injury decision. The ITC has to prove that the U.S. industry in question is suffering material injury or threat of material injury and that this injury is a causal effect of the documented dumping. This is usually done by analyzing how increases in subject import shares affect the domestic production, employment, prices, etc. (Tharakan 1999 p.181-182).

Once the DOC and the ITC have finished their investigations they can impose AD duties. These duties are usually set in accordance to the calculated dumping margins. In many cases, however, the exporting country agrees to either raise its price (price undertaking) or restrict its exports (voluntary export restraint) and the duty is therefore avoided. According to the so called sunset requirement of Article 11.3 (ADA), AD duties or price undertakings are to expire no later than five years after the imposition. That is, if the authorities cannot prove that dumping continues to exist.

### **3. Effects of Antidumping**

Effects of AD measures can be divided in two; quantity and price effects. These effects can be recognized from standard ad-valorem tariff analysis. This is not surprising as AD measures share many characteristics with ad-valorem tariffs. I also discuss the presence of a number of additional effects.

#### **3.1 Quantity Effects**

Standard tariff analysis tells us that the imposed AD duty will decrease imports from the subject country to the AD-imposing country. Trade destruction, as this direct effect is called, is essentially a result of the price wedge that is created between the firms in the AD-imposing country and the firms in the subject country. Thus, producers in the AD-imposing country will gain at the expense of the consumers (Senior Nello 2009 p.86-89). Other, more indirect, effects of AD measures are trade diversion and trade deflection. Trade diversion refers to the shift from subject to non-subject country imports. This effect is welfare decreasing since the non-subject country is a less efficient producer than the hindered subject country (Senior Nello 2009 p.112-113). If this was not true, then the non-subject country would be the primary source of imports from the beginning. A result of trade diversion is that consumer prices increase in the AD-imposing country. After all, this is the sole purpose of the AD instrument. Trade diversion and trade destruction associated with U.S. AD measures, was found in a study by Prusa in 1996. Trade deflection denotes the other side of the measure, namely the subject country and its shift in exports from the AD-imposing country to the non-subject countries (Durling, Prusa 2006 p. 679-680). Since trade deflection is an effect observed in third party countries, this effect will be left out of the upcoming analysis.

In an example where USA is the AD-imposing country, China is the subject country and Mexico is a third non-subject country, the effects can be summarized in the following way:

1. Trade destruction – Decreasing U.S. imports from China.
2. Trade diversion – The decrease in Chinese imports is replaced by imports from Mexico.

3. Trade deflection – Increasing Chinese exports to Mexico (or other third party countries) as China is trying to find new markets.

### **3.2 Price Effects**

AD measures, like ad-valorem tariffs, are expected to increase the price in the AD-imposing country. This effect was documented by Prusa (1996) for the period 1980 - 1988, using HTS-classified product groups. Prusa also found that prices (unit values) increased as AD duties increased, further strengthening the evidence of the price effect. The study additionally concluded that AD measures can raise prices in the non-subject countries as well (Prusa 1996 p.13-14). A possible explanation for this is that firms in the non-subject country respond to the imposed AD in a strategic way.

If dumping firms accept price undertakings, i.e. agree to raise prices and thereby escape the AD duty, the documented effects are somewhat different. The foreign firms can for example, by accident or through collusive behavior, raise prices too much and as a result increase the welfare loss (Lasagni 2000 p.150-151).

### **3.3 Additional Effects**

One possible effect that was studied by Haaland and Wooton in 1998 is the relocating effect, also known as tariff jumping. Relocation through FDI becomes an option for firms in subject countries as they try to overcome the obstacle that is the AD measure. If proven successful this practice will hurt the domestic firms in the AD-imposing country (Haaland and Wooton 1998 p.341, 359). The consumers, on the other hand, will benefit since more efficient producers will operate in the domestic market.

Another effect associated with both trade destruction and diversion is the so called investigation effect. This effect represents the threat-component that occurs as a result of the initiation of an AD case. That is, the initiation itself has a restricting effect on subject imports even if duties are not yet put in place (Staiger and Wolak 1994 p.60). One reason for this adjustment is that the initiation works as a signal to importers to redirect their imports away from targeted foreign suppliers so that they are not taken by surprise when the duties are imposed (Hoekman and Kostecki 2001 p.330). Staiger and Wolak (1994 p.101) found strong support for the existence of the investigation effect. The threat-component can also give grounds for horizontal cooperation

between domestic and foreign firms. Targeted foreign firms often agree to raise prices or restrict exports in order to avoid AD measures. In doing so, they capture some of the rents that would otherwise go to the AD-imposing government. This behavior is detrimental to the domestic consumers as it keeps prices up (Hoekman and Kostecki 2001 p.325).

It is worth mentioning that the use of AD also comes with a large number of costs, both in terms of time and resources. The largest one is the higher price that consumers are forced to pay, but AD measures also come with large administrative costs. Firm employees in the subject country cost millions of dollars as they are tied up defending the accused firm (Kerr 2006 p.25). Likewise, firms in the AD-imposing country will dedicate time and resources to influence their authorities. This rent-seeking behavior is harmful to the economy. Furthermore, the authorities in the AD-imposing country have to hire people to conduct the investigations.

Gallaway et al (1998) used a general equilibrium model to estimate the total cost of AD and countervailing duties (duties designed to neutralize the effects of foreign subsidies) in the USA. The effect on welfare was found to be around 4 billion US dollars annually (Tharakan 1999 p.186-187).

## **4. Antidumping in the Steel Industry**

### **4.1 Industry Characteristics**

The steel industry has always been viewed as an important industry both in terms of jobs and national security. In addition, it possesses certain characteristics, which in the past have proven to be a decisive factor in receiving protection. For example, the industry is relatively concentrated and well-organized with few domestic firms, making it easier to present a united front and thereby exert pressure on the authorities.

Making products out of iron or steel require substantial amounts of raw materials and electricity, not to mention the enormous fixed costs associated with establishing production facilities. In order to cover all these costs, steel makers need to produce a considerable amount of steel products. This tends to encourage overproduction that in turn leads to shrinking profit margins. In addition, the production process itself is characterized by inelastic supply. For example, steel mills have to buy and import raw materials using contracts that span over long periods of time. Moreover, mills use furnaces and other machinery that are slow to start up after a shut down. Thus, the process as a whole is considered inelastic in the short run. A consequence of this is that when demand plummets, mills incur losses and subsequently demand more protection (Ikenson 2004 p.3).

The high fixed costs and inelastic production is a hotbed for an imperfectly competitive market with steel makers enjoying substantial economies of scale and potential competition facing high entry costs. Furthermore, the industry lobby organizations devote time and money to protect the industry from both domestic and foreign competition. Between 1998 and 2009, the steel producing industry in USA spent nearly 100 million U.S. dollars on lobbying alone (<http://www.opensecrets.org>).

### **4.2 Protection in the Past**

The U.S. steel industry was during the first half of the 20<sup>th</sup> century a dominant exporter on the world market. The primary concern of the U.S. steel firms was to minimize the amount of domestic anti-trust charges. However, as producers in other countries became more efficient and as the dollar grew stronger so did the need for protection to the U.S. industry. In the 1970s and 1980s the U.S. government tried to restrict steel

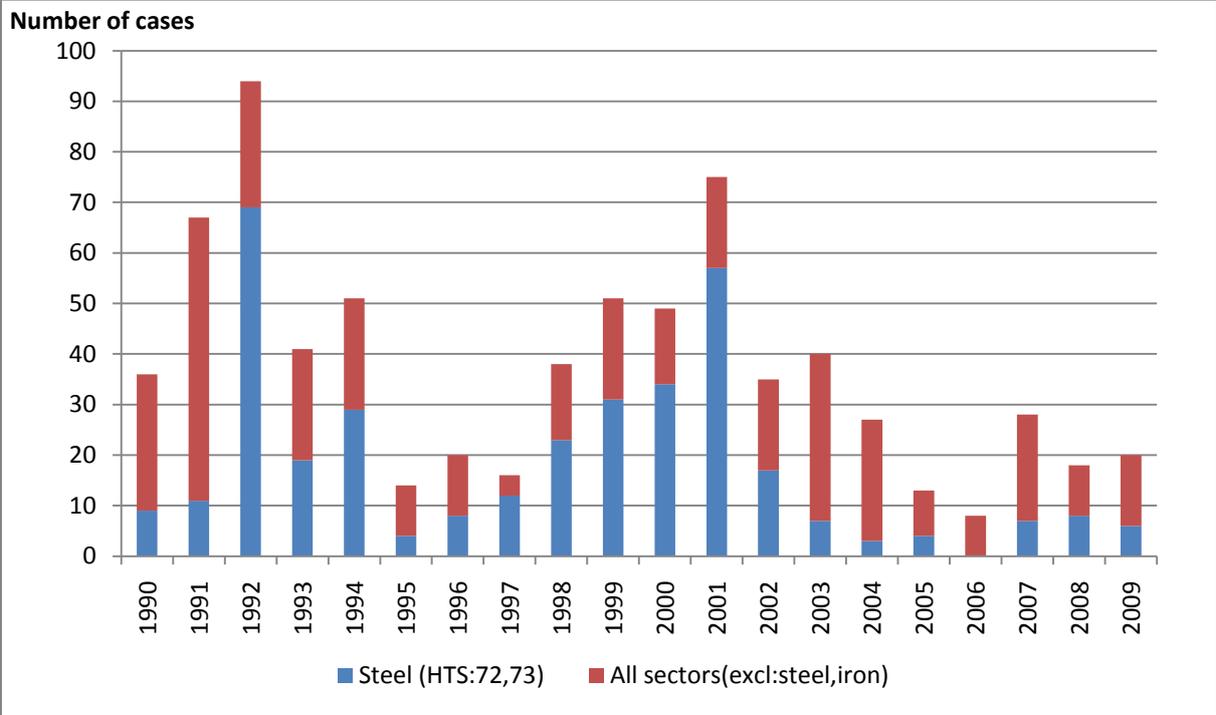
imports through negotiated Voluntary Export Restraints (VER) and through price floors called Trigger Price Mechanisms (TPM). In between these periods of VERs and TPMs, the industry sought protection from AD and CVD (countervailing duties) actions. Thus, as the George H Bush administration in the early 1990s declined to impose new VERs, the AD and CVD cases surged and in 1992 reached a peak of 94 cases (figure 4.1). After the surge, the industry went through a process of modernization, consequently gaining competitive power. In combination with the stronger economic situation, this helped to decrease the number of filed AD measures in the period between 1995 and 1997 (Blonigen et al. 2007 p.6-8).

The so called “steel crisis”, which emerged in 1998 in the form of a currency crisis in Asia, suddenly put competitive pressure on to the U.S. producers. The crippled U.S. industry sought refuge behind new AD and CVD measures, while the government contributed with protection in the form of safeguard actions (Blonigen et al. 2007 p.8). The fluctuations in the number of AD cases filed during the 1990s and onwards can be seen in figure 4.1. The figure depicts all AD cases, against all countries, filed by the steel and iron industry (HTS product groups: 72 and 73) in relation to the total number of AD cases filed by all other sectors. The steel industry accounts for 358 cases which correspond to about 48 percent of all the 741 cases reported in the period. This may seem remarkably high, however the steel industry is here defined as all the firms that filed AD cases containing the product groups 72 and 73. These groups represent everything from pig iron to circular welded steel pipes. Blonigen et al. (2007 p.1) used a narrower definition of the steel industry and as a result found that the industry accounted for one-third of all cases (AD and CVD) reported from 1980 and onwards. Either way, the industry has in the past been a strong AD user in comparison to other industries.

The ADA introduced within the Uruguay round in 1994 offered some disciplinary rules concerning the use of AD. For example, the sunset clause and the two percent dumping margin requirement was added. However, the definition of dumping remained the same and the practices used for obtaining dumping and injury margins were still difficult to regulate (Hoekman, Kosteci 2001 p.326-330). As a consequence, the number of cases initiated was relatively unaffected in the long run. In fact, the

number of cases initiated surged during the years after the completion of the round (Figure 4.1).

**Figure 4.1 Total Number of U.S. AD Cases against All Countries 1990 - 2009**



Source: Global Antidumping database:  
[http://people.brandeis.edu/~cdown/global\\_ad/ad/](http://people.brandeis.edu/~cdown/global_ad/ad/)

## **5. U.S. Antidumping - Case Studies**

In this section I present three AD cases. Two of these cases, USITC 943-947 from 2001 and USITC 1116 from 2007, contain the same product groups, namely HTS: 730630 – 10/50. These groups are defined as: circular-welded non-alloy steel pipes (DOC: <http://ia.ita.doc.gov>). Although these eight-digit groups contain somewhat different sub-products depending on which case that is analyzed, it is still motivated to analyze them collectively. For one, the difference in characteristics between the subgroups is not great. Also, observed effects do not differ between the different ten-digit subgroups. The remaining case, USITC 1024-1028, is from 2003 and targets steel wire strands (HTS: 73121030-10/12).

The specific cases have been selected in order to cover as many angles as possible of the complex AD instrument. Selected cases therefore vary in: outcomes of preliminary and final decisions, imposition of final duties, size of duties and number of subject countries. As you will see below, the difference between the 2001 case and the two other ones when it comes to final decisions, play a major role when studying the long-term effects. Another reason for choosing these particular cases is that they simply enabled a price analysis. Numerous other cases investigated during the research-phase of this thesis showed too strong effects on imported quantities, i.e. the quantities plummeted down to zero. Since the price effect is measured by dividing the value with the imported quantity, this made it impossible to study the potential price effects.

### **5.1 Case 1: USITC 943-947 - Circular-welded Non-alloy Steel Pipe (2001)**

#### **5.1.1 Initiation and Investigations**

The case was initiated by the DOC on June 21, 2001 on the basis of a petition sent in by a number of U.S. steel pipe producers on 24 May, 2001. The original subject countries were: China, Indonesia, Malaysia, Romania and South Africa. The two product groups in question were HTS-number 73063010 and 73063050. These two eight-digit groups, in turn, contained 19 ten-digit products (ITC *Dataweb*: <http://dataweb.usitc.gov>). By accounting for 79 percent of the domestic industry, the petitioners met the requirement of sufficient industry support (DOC: <http://ia.ita.doc.gov>).

Out of the five subject countries, China and Romania were considered NMEs. Dumping margins in the market economy countries were determined through simple price-to-price comparisons, only estimating minor costs. NME margins were calculated using surrogate country price data. The petitioners suggested that India was a suitable surrogate for China and that Egypt and Jordan were suitable for Romania. According to the petitioners these surrogates were suitable because they were: “i) market economies; ii) significant producers of the comparable merchandise; iii) at the comparable level of the subject countries in terms of per capita GNP” (DOC: <http://ia.ita.doc.gov>). The DOC concurred that these were the correct surrogates. Consequently, Chinese material values were based on Indian import values. Chinese electricity costs were estimated using OECD price data from the second quarter in 2000, while natural gas costs were estimated using Indonesian price data. Water and freight costs were estimated in a similar fashion, using data from India and other Asian countries. Furthermore, Chinese profits were derived from five Indian steel producers. Romanian costs and profits were calculated in a similar way using data from Egypt and Jordan (DOC: <http://ia.ita.doc.gov>).

The preliminary investigations concluded that Chinese firms had dumped products on the U.S. market by a margin of 36.42 percent, a margin that also served as the provisional AD duty. Additionally, the ITC found material injury as a result of the Chinese exports by analyzing import shares on the like products. However, the other subject countries were found not to be the cause of injury and therefore these countries escaped further investigations (ITC: <http://www.usitc.gov>).

### **5.1.2 Final Measure**

The preliminary decision was in place for about five months, until the final injury investigation showed that injury in fact had not occurred as a result of Chinese exports (ITC: <http://www.usitc.gov>). Although the U.S. industry’s profitability was declining between 1999 and 2001, the ITC concluded that this was caused by weakening demand and increasing non-subject imports, rather than increasing subject imports (ITC: <http://www.usitc.gov>). Thus, no final duties were imposed and the collected preliminary duties were paid back. The entire case history can be viewed in table 5.1 below.

**Table 5.1 Case 1: USITC 943-947 – Case History**

<b>DOC Case Number</b>	<b>Country</b>	<b>Product Group</b>	<b>Initiation</b>	<b>Preliminary</b>	<b>Final</b>	<b>AD Duty</b>
A-570-870	China	730630-10/50	Jun 21, 2001	Dec 31, 2001 36.42 %	Jul 09, 2002 Neg. Injury	-
A-560-814	Indonesia	730630-10/50	Jun 21, 2001	Neg. Injury	-	-
A-557-811	Malaysia	730630-10/50	Jun 21, 2001	Neg. Injury	-	-
A-485-807	Romania	730630-10/50	Jun 21, 2001	Neg. Injury	-	-
A-791-812	South Africa	730630-10/50	Jun 21, 2001	Neg. Injury	-	-

Source: <http://ia.ita.doc.gov/stats/inv-initiations-2000-current.html>

## **5.2 Case 2: USITC 1116 – Circular-welded Non-alloy Steel Pipe (2007)**

Although product groups remained the same, i.e. 73063010 and 73063050, the final outcomes and duties differed from the case initiated in 2001. Further, as China was the only subject country to reach past preliminary investigations in both 2001 and 2007, the two cases enable a collective analysis of the effects. This is an interesting analytical advantage.

### **5.2.1 Initiation and Investigations**

The petition, filed by seven American steel producers on June 7 2007, led to the initiation of the case on July 5 2007. The producers accounted for more than 25 percent of the total domestic production of the like product and consequently met the regulatory requirements. The single subject country was China. As in the 2001 case, China kept its status as an NME, but this time the DOC decided to use India, Indonesia, Sri Lanka, the Philippines and Egypt as surrogate countries in the investigation. The rationale behind this decision was the same as in the 2001 investigation, i.e. subject countries were considered to be: “i) market economies; ii) significant producers of the comparable merchandise; iii) at the comparable level of the subject countries in terms of per capita GNP” (DOC: <http://ia.ita.doc.gov>). Dumping margins were again calculated using different kinds of surrogate data, including for example electricity and profit data. Thus, the methodology of calculating margins did not change from the case initiated in 2001.

The preliminary decision showed that both dumping and injury had occurred during the period of investigation (October 2006 to March 2007). Associated provisional

duties of 25.67 percent (firm-specific rate) and 51.34 percent (country-wide rate) were put in place in January 2008 (DOC: <http://ia.ita.doc.gov>).

### 5.2.2 Final Measure

In contrast to the USITC 943-947 investigation, this investigation reached an affirmative final decision both in terms of dumping and in terms of injury. Additionally, the final duties were, after further investigation, raised to 69.20 and 85.55 percent respectively. The country-wide rate of 85.55 percent applied to all Chinese firms not investigated by the DOC and ITC.

**Table 5.2 Case 2: USITC 1116 – Case History**

Case Number	Country	Product	Initiation	Preliminary	Final	AD Duty
A-570-910	China	730630-10/50	Jul 05, 2007	Jan 15, 2008 25.67 - 51.34 %	Jun 05, 2008	Jul 22, 2008 69,2 - 85,55 %

Source: <http://ia.ita.doc.gov/stats/inv-initiations-2000-current.html>

## 5.3 Case 3: USITC 1024-1028 – Prestressed Concrete Steel Wire Strand (2003)

### 5.3.1 Initiation and Investigations

This case was initiated on February 27 2003. The ten-digit products named in the initiation were limited to two: 7312103010 and 7312103012. These products were defined as “...covered and uncovered strand and all types, grades, and diameters of PC strand.” (ITC: <http://www.usitc.gov>). None of the five subject countries Brazil, India, South Korea, Mexico and Thailand were considered NMEs. As a result, the preliminary and final investigations used other methods to establish the normal value. One of these methods was the “facts available” method, which is used whenever foreign firms supply incorrect information or simply do not bother to respond to the DOC’s requests. This was the case for all subject countries except Thailand. The DOC argued that the firms in the other countries had failed to comply with the DOCs request for information and that they had obstructed the investigations. The reliability of the dumping margins stated in the domestic firms’ petitions were therefore assessed and subsequently used as substitutes for the missing information. Preliminary dumping margins were imposed on July 17 2003 following the affirmative injury decision from the ITC on March 17 2003. ITCs decision was determined by investigating the volume of subject

imports and their effect on prices for the domestic like product, as well as the impact on domestic producers (ITC: <http://www.usitc.gov>).

### 5.3.2 Final Measure

The final decisions did not deviate from the preliminary decisions. Thailand received the lowest duty of 12.91 percent, while the other countries received higher duties as a result of the facts available method. The final duties were imposed on January 28 2004 (Table 5.3).

**Table 5.3 Case 3: USITC 1024-1028 – Case History**

<b>DOC Case</b>						
<b>Number</b>	<b>Country</b>	<b>Product</b>	<b>Initiation</b>	<b>Preliminary</b>	<b>Final</b>	<b>AD Duty</b>
A-351-837	Brazil	73121030- 10/12	Feb 27, 2003	Jul 17, 2003 118.75%	Dec 08, 2003	Jan 28, 2004 118.75 %
A-533-828	India	73121030- 10/12	Feb 27, 2003	Jul 17, 2003 83.65 - 102.07 %	Dec 08, 2003	Jan 28, 2004 83.65 - 102.07%
A-580-852	South Korea	73121030- 10/12	Feb 27, 2003	Jul 17, 2003 35.64 - 54.19 %	Dec 08, 2003	Jan 28, 2004 35.64 - 54.19 %
A-201-831	Mexico	73121030- 10/12	Feb 27, 2003	Jul 17, 2003 57.64 - 77.20 %	Dec 08, 2003	Jan 28, 2004 57.64 - 77.20 %
A-549-820	Thailand	73121030- 10/12	Feb 27, 2003	Jul 17, 2003 11.52 %	Dec 08, 2003	Jan 28, 2004 12.91 %

Source: <http://ia.ita.doc.gov/stats/inv-initiations-2000-current.html>

## 6. Trade Effects of Antidumping Cases

The goal of this analysis is to study the potential presence of trade destruction and trade diversion, as well as the potential price effects stated earlier. Quantity effects are studied in depth by measuring variations in quarterly import flows from subject countries and non-subject countries over a particular time period, in this case 1996 – 2009. The selection of this time period eliminates potentially misleading results caused by the change in AD regulation in 1994 (Uruguay Round). Finally, figures showing import values in dollars are only displayed in the appendix. The reason for this is that these values do not contribute to the analysis, since they are highly correlated with the imported quantities.

The complete set of quarterly import data has been collected from ITC's database *Dataweb* (<http://dataweb.usitc.gov>). To isolate the effects of the AD measures on imports, it is important to remain on the same "data level" and to separate AD-affected imports (subject countries) from unaffected imports (non-subject countries). In an effort to reach accurate results, this analysis therefore measures imports on precisely the same HTS-digit product level as stated in the AD measures. Further, import quantities from subject and non-subject countries, together with subjects' share of total imports, are displayed in the same figure. This way, effects on imported quantities are clearly visible and easy to compare. The inclusion of subject countries' share of total imports in the analysis serves the purpose of showing the degree of subject penetration on the U.S. market. A large share of U.S. imports from a particular country, i.e. high level of penetration, is expected to increase the probability of that country being targeted in an AD measure. After all, material injury is likely to be greater if the subject countries' shares of the U.S. market are large. Moreover, as larger quantities move from subject to non-subject imports, large import shares are likely to result in clearer trade divertive effects.

It would of course be fruitful to measure how the U.S. industry production is affected by the imposition of the AD measures. One could then measure the potential benefits associated with the AD measures from a domestic industry perspective. However, since

the product levels are very specific in the AD measures, this is made virtually impossible. There is simply no such data available on U.S. domestic production.

For simplicity, figures in the upcoming analysis include data labels that denote points of interest in each AD case. The purpose of this is to mark out the different decisions throughout the timeline of the investigations and thereby clearly illustrate the effects on imported quantities and prices. The labels correspond to the following points of interest:

**A:** Initiation of the case.

**B:** Preliminary decision.

**C:** Final decision.

**D:** Final imposition of AD duty.

Since the final decision for case 1 (USITC 943-947) in 2002 was negative, the label (**D**) is not represented during that period of investigation in figure 6.1.1 below. The label is, however, represented in the 2007 case (USITC 1116), displayed in that same figure.

### **6.1 Case 1 and 2: USITC 943-947 and 1116 - Circular-welded Non-alloy Steel Pipe**

China was the only subject country to reach past the preliminary stage in the 2001 case. Hence, China was also the only country subjected to provisional duties (36.42 percent). The potential effects on imports from the other subject countries are therefore likely to be small. It is possible that “investigation effects”, i.e. decreasing imports as a result of the initiation, could be present in the data. However, when analyzing all countries collectively, the changes in imports from the other subject countries are likely to cause misleading results. Thus, China is the only subject country used in the analysis of USITC cases: 943-947 and 1116.

The observed trade effects (**A - D**) of case 1 and 2 are ultimately summarized in section 6.1.3.

#### **6.1.1 Quantity Effects**

AD measures usually have the purpose of restricting imported quantities from the subject countries. The expected quantity effects of AD measures are therefore,

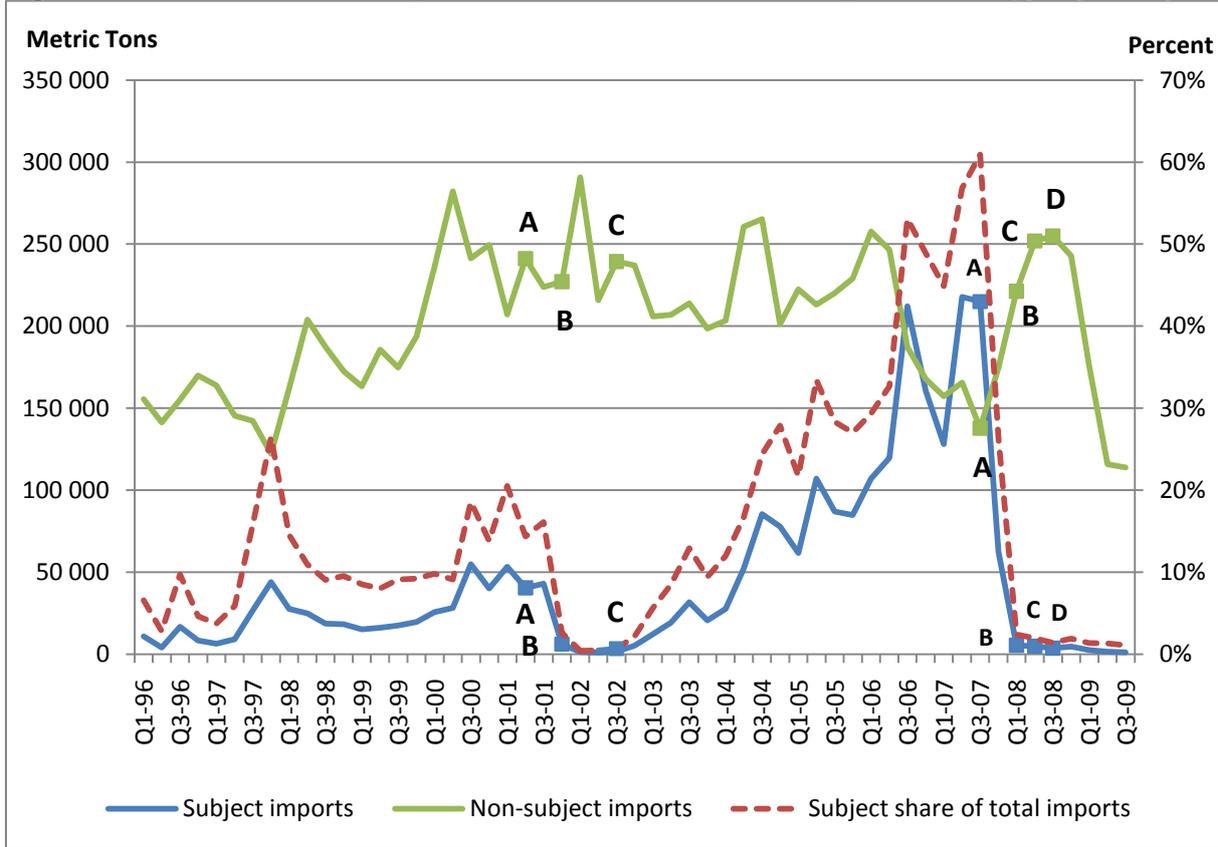
decreasing imports from subject countries (trade destruction) and increasing imports from non-subject countries (trade diversion). Figure 6.1.1 shows quarterly data of imported quantities from both subject countries and non-subject countries. The axis on the left shows total imported quantities in metric tons. It corresponds to the subject and non-subject lines, while the axis on the right corresponds to the dotted red line (shares).

Apart from the increase in imported quantities and import shares in 1997, possibly caused by AD and CVD duties targeting other countries, subject quantities averaged below 20 000 tons quarterly throughout the nineties. The subject import share remained at the level of ten percent. One year before the 2001 initiation the subject quantity increased to a steady flow of about 50 000 tons quarterly, pushing the subject share up to around 15 percent. The initiation of the first case took place during the very last days of Q2 2001, marked with (A) in the figure. Since imports were measured over the whole quarter, it is therefore likely to assume that the effects of the initiation were delayed one quarter. Consequently, it would be more accurate to assign the initiation to the third quarter. This makes sense when examining the figure, because subject quantities fell sharply from 43 000 tons in Q3 to 6 000 tons in Q4. Likewise, the subject share of total imports fell from 16 percent in Q3 to 3 percent in Q4. The decrease in subject quantity imports gained momentum and throughout the first three quarters of 2002 quantities stayed below 2 000 tons and subject shares stayed around zero. This is not surprising as the period Q4 2001 – Q3 2002, marked the period during which the preliminary duty of 36.42 percent was in force. Thus, the lowest numbers of imported subject quantities were reported during the period of the preliminary duty (B-C). After this period, from Q3 2002 (C) and onwards, the subject quantities and shares rose steadily.

In contrast to the subject imports, the non-subject imports had a flat trend of around 200 000 tons throughout the entire sample period. However, variations seem to have been present all over the period. At the time of the initiation of the 2001 case (A), the non-subject quantity was at around 225 000 tons. Keep in mind that (A) should be closer to (B), since the initiation took place in the very last days of Q2 2001. When the preliminary duty was put in place in Q4 2001, non-subject quarterly imports climbed

approximately 63 000 tons, an increase of about 28 percent. The increase, in absolute terms, of non-subject imports was therefore greater than the decrease in subject imports, suggesting that the AD measure did not cause the entire spike in non-subject imports. However, it is reasonable to assume that some of the subject imports were replaced by non-subject imports. This suggests that there was some sort of trade divertive effect as a result of the 2001 AD case.

**Figure 6.1.1 Case 1 and 2: Imports and Shares of Total Imports HTS: 730630-10/50**



Source: ITC *Dataweb*: <http://dataweb.usitc.gov/>

Note: **A**: Initiation of the case, **B**: Preliminary decision, **C**: Final decision, **D**: Final imposition of AD duty.

After the negative final injury decision, imports from China, the only subject country, increased at a high rate. During the five year period Q3 2002 to Q3 2007, imports from the subject country increased from 1 600 tons to 215 000 tons and subject shares rose from one to 61 percent (figure 6.1.1). With a share of 61 percent, China was at the time of the USITC 1116-initiation the largest exporter of circular-welded non-alloy steel pipes to the U.S. However, the initiation of the case had dramatic effects on imported quantities from both subject and non-subject countries. Between the initiation (**A**) and

the preliminary duty (B), the subject share of total imports plummeted from 61 percent to two percent and quantities dropped from 215 000 tons to 5 000 tons. This is quite a remarkable result, considering that the period spanned only over two quarters. From the imposition of the preliminary duties (B) and through to the imposition of the final duties (D), subject quantities and shares remained at an exceptionally low level. In contrast to the 2001 case, the 2007 case appears to have had a prolonged destructive effect on imported quantities from the subject country. This effect is likely the result of the final duties (69.20 – 85.55 percent) that were imposed on China in the third quarter of 2008, in combination with the imminent recession developing during that period.

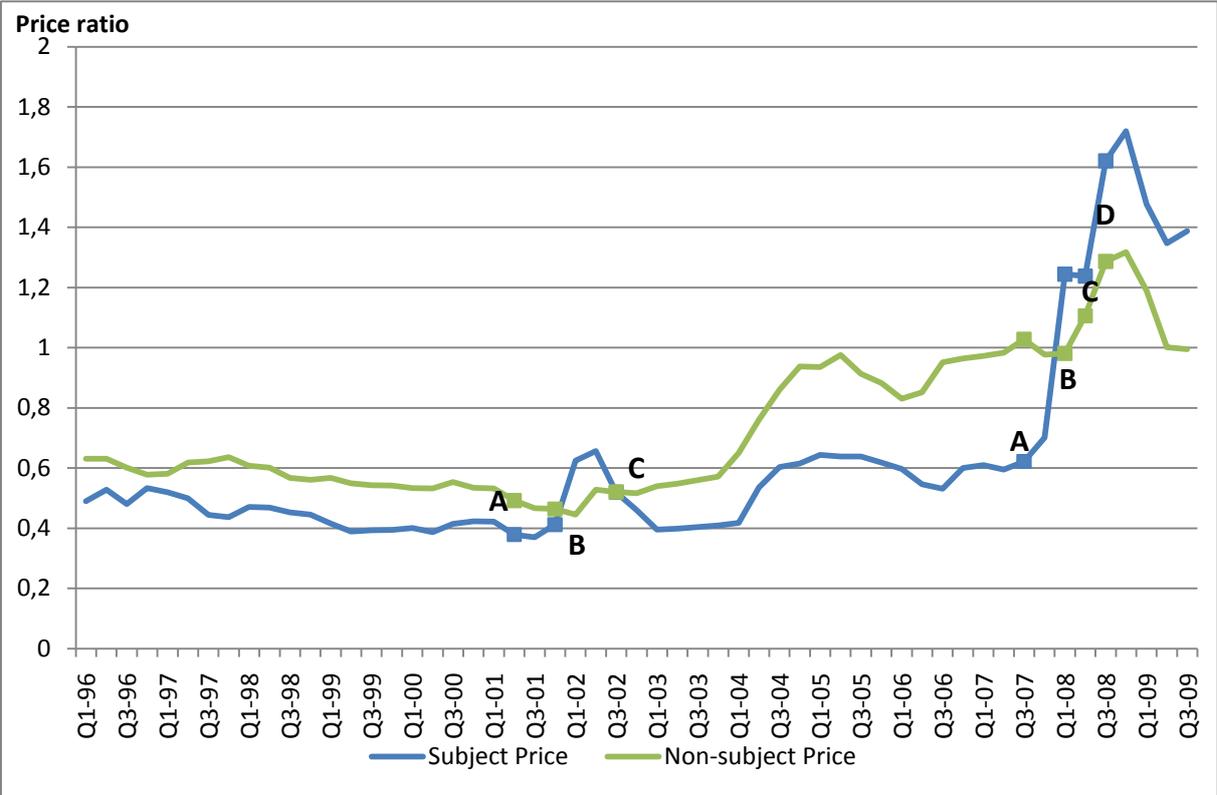
Between the initiation (A) and the final duty (D) imported quantities from non-subject countries, i.e. all countries except China, increased by 85 percent. As in the 2001 case, this increase seems to have been connected to the fall in subject quantities and shares, which suggests that trade diversion was present from Q3 2007 to Q3 2008. Subject quantities and shares remained low throughout the rest of the sample period. However, the non-subject quantity appears to have dropped significantly after the imposition of the final duty (D). A possible explanation for this could be the imminent recession. It is likely that the recession caused decreasing imports from all countries. This becomes evident when looking at the value of total U.S. imports (all products) from all countries. The values were growing steadily until late 2008 (U.S. Census Bureau). This suggests that the recession caused an industry-wide drop in imports and consequently also a drop in imports on the relevant steel products.

### **6.1.2 Price Effects**

Since the goal of the AD instrument is to restrict imports and raise prices, the anticipated price effects are increased prices at the border on named products from subject countries. Price effects are measured by taking the “customs value”, i.e. the total value in dollars of the good entering USA, divided by the “first unit of quantity”. In doing so, the price effects are separated from the quantity effects, making them easier to analyze. Price effects on the imported products 73063010 and 73063050 are presented in figure 6.1.2.

Throughout the whole sample period, i.e. Q1 1996 to Q3 2009, the subject price ratio stayed below the non-subject price, except during two short periods coinciding with the two AD cases. During the nineties, both subject and non-subject price ratios experienced modest variations. This changed in the third quarter of 2001, when the subject price started to increase, probably to some extent as a result of the USITC 943-947 case initiated just one quarter earlier. The preliminary duty was put in place in Q4 2001 (B) and subsequently subject prices started to rise sharply. This price increase peaked in the second quarter of 2002 and after that it started to decrease again. After the final negative injury decision (C), the subject price ratio went down to the level observed before the AD measure was put in place. Thus, as expected, the pattern seems to have been negatively correlated with the subject quantity imported. This pattern was repeated throughout the period of the USITC 1116 case. Initiated in Q3 2007 (A), the case appears to have raised the price ratio sharply all the way up to the quarter following the imposition of the final AD duty of 69.20 – 85.55 percent in the third quarter of 2008. Like in the case of the imported quantity it is reasonable to assume that, from late 2008 and onwards, prices were affected by the diminishing demand caused by the recession.

**Figure 6.1.2 Case 1 and 2: Subject (CHN) and Non-subject Price Ratios (Customs Value/First Unit of Quantity) HTS: 730630-10/50**



Source: ITC Dataweb: <http://dataweb.usitc.gov/>

Note: A: Initiation of the case, B: Preliminary decision, C: Final decision, D: Final imposition of AD duty.

**6.1.3 Effects Sum-up**

Effects of AD-cases USITC 943-947 and 1116, are here summarized according to the points of interest marked with letters: A-D.

**A:** Both cases showed clear evidence of trade destruction, i.e. decreasing quantities imported from the subject country as a result of the initiation. In fact the destruction appears to have been substantial as early as during the period in-between the initiation and the preliminary decision, which further strengthens the evidence of the so called investigation effect. Trade divertive effects also seem to be present during the initiation period, although it is difficult to estimate how much of the increases in non-subject imports that were caused by diversion. Increases in prices were also visible during the period of initiation, especially in the case initiated in 2007.

**B:** In both cases the affirmative preliminary decisions stimulated the destructive and divertive effects. That is, the decisions formally strengthened the already active investigations and consequently also the effects of the decisions. This period coupled with the initiation period (A) showed the largest effects on quantities, shares and prices.

**C-D:** One interesting observation can be made in relation to the final decisions of the two cases, namely the effect of the final negative decision in the 2001 case in comparison to the effect of the final affirmative decision in the 2007 case. After the negative final decision (C) in 2002 the subject quantities started to rise quickly. Conversely, the affirmative final decision in 2008 continued to restrict imports from subject countries throughout the subsequent period. This suggests that the final decisions were decisive factors for the development of long-term future subject imports. The price did also continue to increase during this period of the case initiated in 2007.

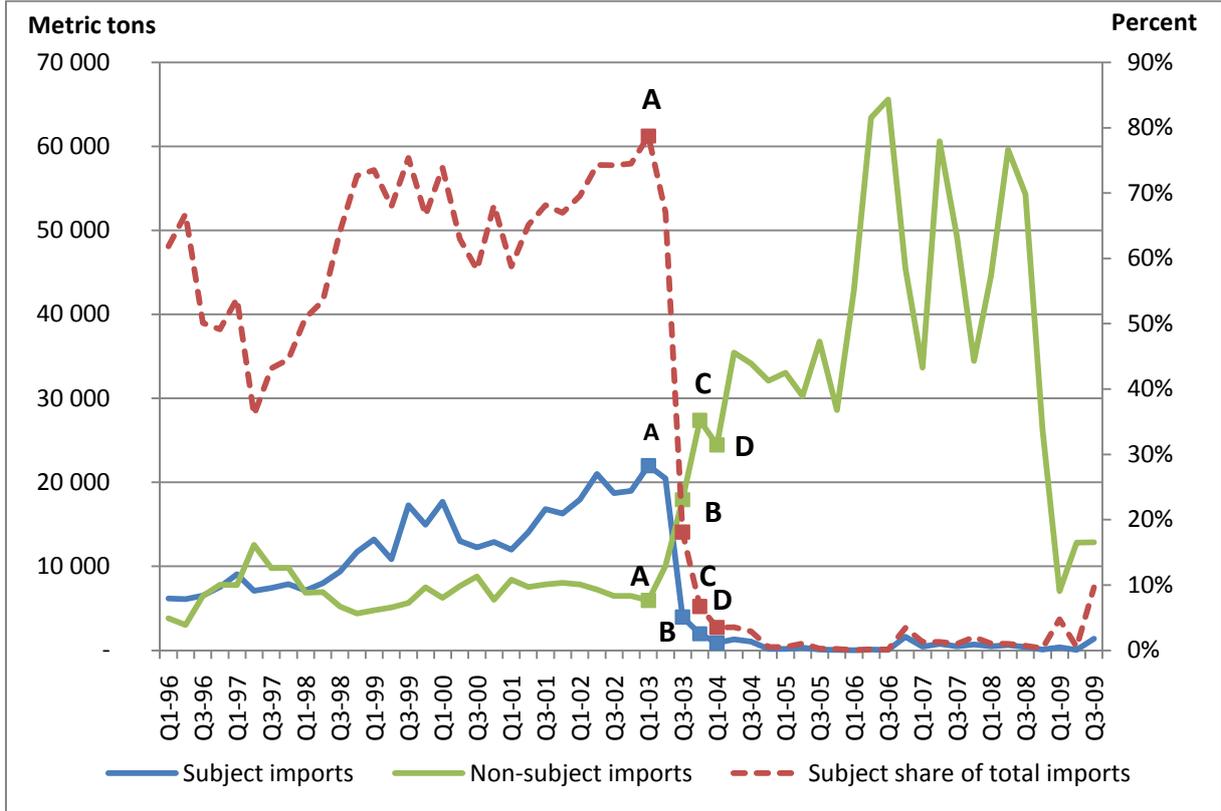
### **6.2 Case 3: USITC 1024-1028 – Prestressed Concrete Steel Wire Strand**

In contrast to the cases concerning circular-welded steel pipes, this case targeted several countries with final duties. It is therefore reasonable to include all the original subject countries, when analyzing the effects of the measure. The observed trade effects of case 3 are ultimately summarized in section 6.2.3.

#### **6.2.1 Quantity Effects**

Although products, countries, duties, period of time etc have changed, I still expect to find trade destruction and trade diversion. Furthermore, the imposition of final duties on all subject countries should imply clearer long-term effects on subject and non-subject imports, due to the five year sunset review. The quantity effects are displayed figure 6.2.1 and the points of interest are marked out using the same data labels as earlier.

**Figure 6.2.1 Case 3: Imports and Shares of Total Imports HTS: 73121030-10/12**



Source: ITC Dataweb: <http://dataweb.usitc.gov/>

Note: A: Initiation of the case, B: Preliminary decision, C: Final decision, D: Final imposition of AD duty.

Throughout the nineties subject quarterly imports increased from 6 000 to 17 000 tons, while non-subject imports had a relatively flat trend at just below 10 000 tons. During the first years of the new century, subject shares increased to about 80 percent in Q1 2003 and quantities peaked at 22 000 tons. Thus, subject countries’ penetration was very high at the time of the initiation (A). The initiation of USITC 1024-1028 in Q1 2003 was followed by a fall in subject imports. During the two-quarter long period between the initiation and the preliminary decision (A to B), imported subject quantities fell from 22 000 tons to 4 000 tons. At the same time subject shares of total imports, fell from 79 percent to 18 percent. Two quarters later, at the time of the imposition of the final duties (D), the subject quantities were down at approximately 890 tons. Subject shares also continued to plummet from four percent at (D) to virtually zero in late 2005. Throughout the rest of the sample period, with the exception of two quarters, imported subject quantities stayed below 1 000 tons. Thus, the trade destructive effects of the AD measure were large both in absolute and in relative terms. Substantial

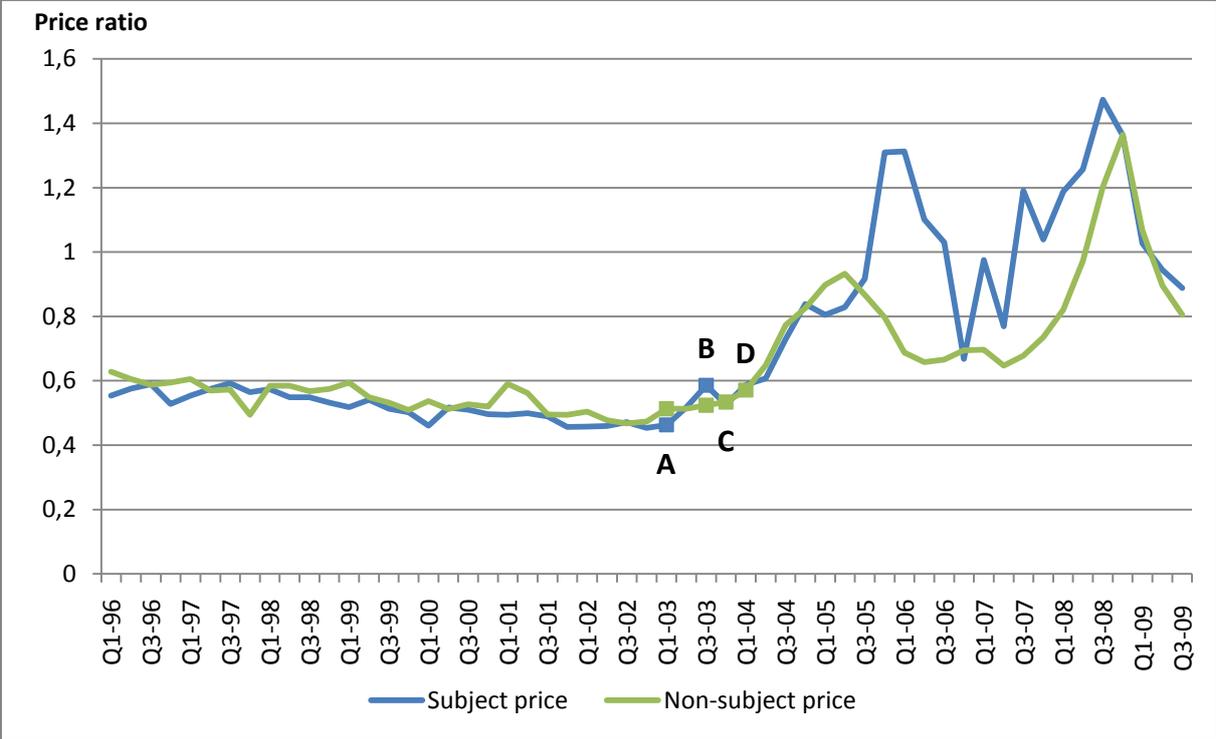
subject shares were completely erased in just one year (A-D). The following final duties appear to have worked in a prohibitive way on subject imports throughout the rest of the sample period. There seems to have been a sustained long term effect on subject imports.

From the initiation in Q<sub>1</sub> 2003 to the imposition of the final duties one year later, non-subject imports increased over 300 percent from approximately 6 000 tons to about 25 000 tons. During that same period subject imports fell from 22 000 tons to about 900 tons. The subject fall therefore seems to have been replaced by an increase in non-subject imports, which suggests that trade diversion was present as a result of the AD measure. After the final duties were put in place non-subject imports continued to increase, peaking in Q<sub>3</sub> 2006 with about 66 000 tons. The following period contained several large variations ending with a substantial fall in non-subject imports in late 2008. Similar decreases in late 2008 were found in the other cases as well, implying that this fall had something to do with the recession.

### **6.2.2 Price Effects**

The price effects of the USITC 1024-1028 case were not as clear cut as the effects observed in the two earlier cases. In fact, the subject and non-subject price ratios moved closely together from 1996 until the end of 2004, though both price ratios increased from early 2003 (A) and onwards (Figure 6.2.2). Between 2005 and 2009, non-subject prices had a u-shaped progress, whereas subject prices saw significant year-to-year variations. The overall subject price level was, however, higher than the non-subject price level during this period, which suggests that prices were affected by the low level of subject imports.

**Figure 6.2.2 Case 3: Subject and Non-subject Price Ratios (Customs Value/First Unit of Quantity) HTS: 73121030-10/12**



Source: ITC Dataweb: <http://dataweb.usitc.gov/>

Note: A: Initiation of the case, B: Preliminary decision, C: Final decision, D: Final imposition of AD duty.

**6.2.3 Effects Sum-up**

**A:** Like the cases presented earlier, this one showed clear evidence of trade destruction as a result of the initiation. In fact, as in the earlier cases, the largest drop in imported quantities from subject countries was present during the period in between the initiation and the preliminary decision (A-B). Again, this shows the importance of the investigation effect on short term imports. This finding also implies that the sizes of duties were relatively unimportant in the short run perspective, as the initiation itself had a very large effect on quantities imported from subject countries.

Divertive effects were also present during the period after the initiation. However the investigation effect appears not to have been as large as when it comes to trade destruction. The subject price during the period of initiation increased slightly.

**B:** As in the earlier cases, the preliminary decisions added to both the destructive and the divertive effects. Subject imports continued to decrease and non-subject imports

continued to increase with supported strength from the imposed provisional duties. Subject price ratios actually fell during this quarter, before embarking on the long term climb in Q4 2003.

**C-D:** The final decisions and duties primarily affected imports from non-subject countries. Specifically, these imports increased sharply in the quarter after the final duties were imposed. Subject imports continued to fall during this period and remained at low level throughout the rest of the sample period, implying that the imposed final duties had a long-term restricting effect on subject imports and shares. Both subject and non-subject prices rose after the final decisions and duties.

## 7. Summary and Concluding Remarks

In this thesis I have analyzed the effects associated with AD measures filed by U.S. steel producers in three cases initiated in 2001, 2003 and 2007. The expected effects, i.e. decreasing subject imports, increasing non-subject imports and increasing prices, were to some degree all found in connection to the AD-cases. The cases showed strong destructive, as well as distinct divertive, effects on imports from subject and non-subject countries as early as one to two quarters after the initiations (A). Such large effects were not expected to emerge during the period of initiation, since this period does not involve duties. This result suggests that the threat-component of the AD instrument is of greater importance than expected, which further strengthens the support for the so called investigation effect. The provisional (B) and final (D) duties merely added to the already initiated changes in imports. The final duties (D) had a long-term restricting effect on subject imports, whereas the increasing effects on non-subject imports were concentrated to shorter periods of time regardless of the number of duties imposed.

There were apparent differences between the 2001 case, which was given a negative final decision (C), and the two other cases. The 2001 case showed signs of destruction and diversion, but these effects, as expected, disappeared when the investigation was terminated due to the negative final injury decision (C). The other cases included final five-year-duties (D) and consequently the effects were visible over longer periods of time.

Clear price effects were found in connection to the first two AD-cases initiated in 2001 and 2007. In these cases, subject price ratios increased sharply one to two quarters after the initiations (A). The price effects in the case initiated in 2003 were rather ambiguous. Prices rose on subject imports after the initiation, however so did the prices on non-subject imports. It is therefore uncertain whether or not the increase was caused by the AD measures. On the other hand, subject prices remained relatively high at the end of 2005 suggesting that the low import volumes had some effect on prices.

In the light of these results one can argue that the AD measures were successful. At the same time one can ask what the general AD associated benefits are from a petitioner's point of view. After all, the results suggest that there are divertive effects associated with the AD measures, which would imply that the overall import is unchanged after imposed AD measures and that the practice of filing petitions would thus be pointless. On the other hand, the observed investigation effect suggests that the filing of AD measures is in fact not a pointless practice. Rather, the filing behavior has an intimidating effect on foreign firms. In this sense AD measures work as informal price floors, informing foreign firms to stay within the price range of the domestic firms. Foreign firms that still lower their prices face the risk of being subjected to AD measures and subsequent exclusion from the U.S. market. This threat-component of the AD instrument gives the import competing domestic firms breathing space and some control over their domestic market. Foreign firms and domestic consumers, on the other hand, are likely to be worse off because of the increased prices and lower import volumes. This development is also driven by the domestic industries' ability to influence their government as well as the international community's inability to reform the AD regulations.

The inability to reform the ADA and the national AD regulations is a cause for concern. Today, domestic authorities use methods to establish dumping and injury margins that are, to say the least, questionable in their accuracy. The flawed definition of dumping, together with practices like "facts available" and "NME" methods, make AD an attractive option for domestic firms because these practices tend to lead to affirmative decisions. Despite several efforts to reform the ADA, nothing has been done about these problems. The explanation is perhaps the powerful interests vested in the wellbeing of the domestic industries, in combination with the lack of political will in favor of reform. In any case, economists worldwide agree that, since AD is a potent trade restricting tool, reform is necessary for the good of global trade and competition.

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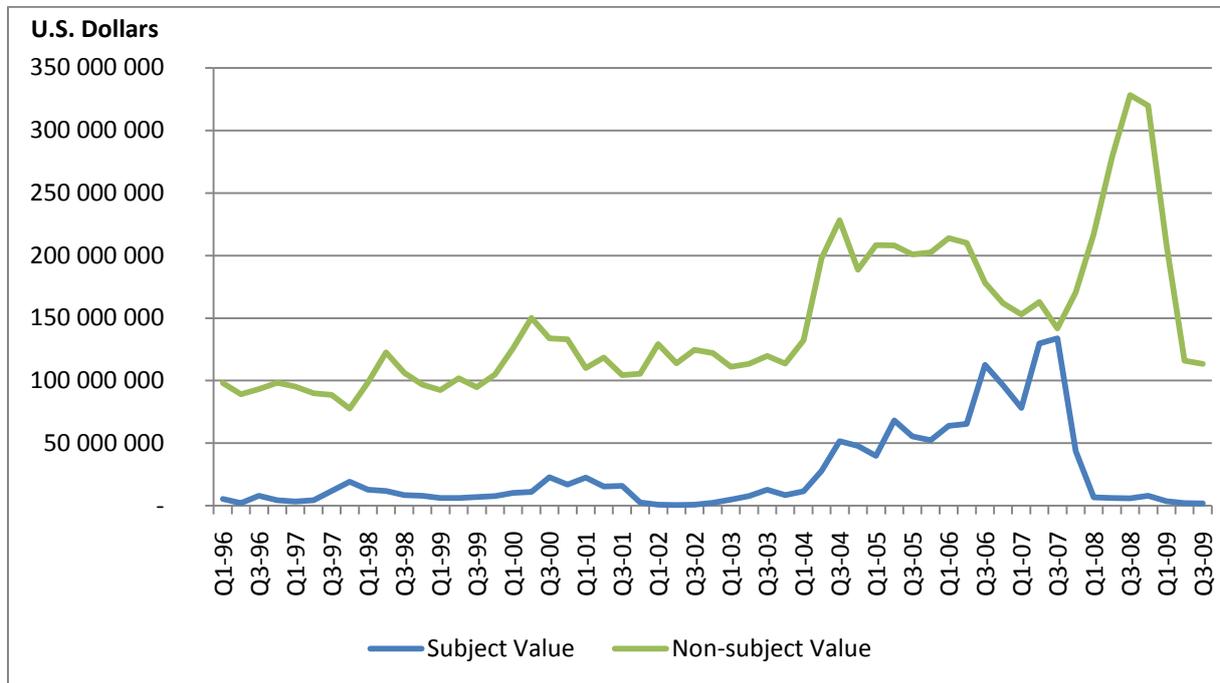
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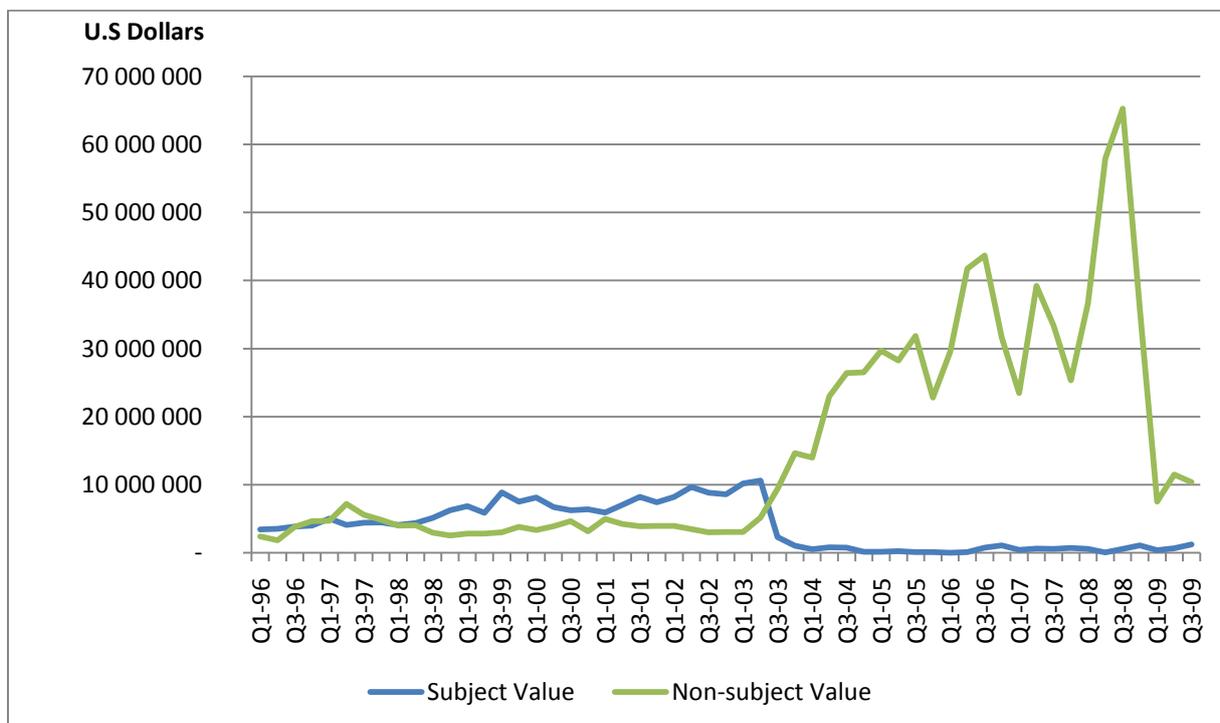
## Appendix

**Figure 1. USITC: 943-947 and 1116 - Imported Values HTS: 730630-10/50**



Source: ITC *Dataweb*: <http://dataweb.usitc.gov/>

**Figure 2. USITC: 1024-1028 - Imported Values HTS: 73121030-10/12**



Source: ITC *Dataweb*: <http://dataweb.usitc.gov/>