

## INTERNATIONAL TRADE AND FINANCE MASTERCLASS

PART 03 OF 25 · SECTION I: THE PHYSICAL ARCHITECTURE OF GLOBAL TRADE

# PART 3

## CUSTOMS, TARIFFS, AND THE HARMONIZED SYSTEM

*How every product in the world is given a classification number, how that number determines the duty you pay, how customs calculates value, and how to reduce your duty burden legally and permanently.*

### IN THIS PART

- The Harmonized System — how it works and why it matters
- Classification methodology — the General Rules of Interpretation
- How customs calculates the value of your goods
- First sale valuation and how to use it
- Anti-dumping and countervailing duties
- Binding rulings and how to get certainty before you ship

### CASE STUDIES

*Each part includes fully worked case studies with detailed calculations, real-world context, and practical lessons for CFOs and finance leaders.*

## ■ THE RULES AT THE BORDER

### What Customs Actually Does — and Why It Exists

When most people think about customs, they think about the uniformed officer who checks passports at the airport or the queue at the border crossing. But for a CFO managing an international business, customs is something far more significant. It is a government agency that serves as the gatekeeper for every piece of merchandise entering and leaving the country, collecting billions of dollars in duties, enforcing trade laws that have enormous financial consequences, and implementing the trade policy decisions of the government with immediate commercial impact on every business that imports or exports.

In the United States, US Customs and Border Protection processes approximately thirty-five million formal import entries per year and collects approximately eighty-five billion dollars in duties, taxes, and fees annually. In the European Union, customs authorities process approximately three hundred million customs declarations per year. These are not passive bureaucratic exercises. Every entry is a legal declaration by the importer that the goods are

what they say they are, worth what the invoice says they are worth, and originating where the certificate of origin says they originate. Getting any of these wrong — even innocently — can result in penalties, additional duties, and in serious cases, criminal prosecution.

## The Harmonized System: A Universal Language for Goods

Here is a remarkable fact: every product manufactured anywhere in the world can be described by a standardized numerical code that is the same in over two hundred countries and territories. This system — the Harmonized Commodity Description and Coding System, universally known as the Harmonized System or HS — was developed by the World Customs Organization and has been in use since 1988. It is the foundation of international trade statistics, customs duty assessment, and trade agreement negotiations. If you do any importing or exporting, the HS code of your products is one of the most important numbers in your business.

### How the Harmonized System Is Structured

The HS is organized hierarchically, like an address that gets progressively more specific at each level. Think of it like a country, then a city, then a street, then a house number — except for products instead of places. At the broadest level, all products are organized into twenty-one sections. Each section covers a major category of products — Section I covers live animals and animal products, Section XI covers textiles and textile articles, Section XVI covers machinery and mechanical appliances. Within each section are chapters — ninety-seven of them in total, each identified by a two-digit number. Chapter 62, for example, covers articles of apparel and clothing accessories, not knitted or crocheted.

Within each chapter, products are organized into headings identified by a four-digit number. Heading 6205, for example, covers men's shirts. Within each heading are subheadings identified by a six-digit number. Subheading 620520 covers men's shirts of cotton. The six-digit HS code is internationally standardized — every country in the world uses the same six-digit codes. Beyond six digits, countries add their own national subheadings. The United States uses a ten-digit system — the Harmonized Tariff Schedule of the United States — where the first six digits follow the international HS standard and the last four digits are US-specific refinements that determine the exact duty rate.

## ◆ HS CLASSIFICATION STRUCTURE

## HS CODE STRUCTURE – WORKED EXAMPLE

PRODUCT: Men's long-sleeve cotton shirt, woven

Level 1 – Chapter (2 digits):

Chapter 62: Articles of apparel and clothing accessories,  
not knitted or crocheted

Level 2 – Heading (4 digits):

6205: Men's or boys' shirts

Level 3 – International Subheading (6 digits):

6205.20: Of cotton

Level 4 – US HTS (10 digits):

**6205.20.2010: Men's shirts, of cotton, not knitted,  
imported under certain conditions**

**US Duty Rate: 19.7% ad valorem**

**FINANCIAL IMPACT OF CORRECT CLASSIFICATION:**

**Shipment of 10,000 shirts, CIF value \$180,000**

**Correct classification duty:  $\$180,000 \times 19.7\% = \$35,460$**

If misclassified as synthetic fiber shirts (12.0% rate):

Duty:  $\$180,000 \times 12.0\% = \$21,600$

Underpaid duty:  $\$13,860$  – potential penalty:  $\$55,440$

## The General Rules of Interpretation

Classifying a product in the HS is not always as simple as looking up a list. Complex products — particularly machinery, composite articles, sets, and mixtures — may appear to fit into multiple categories. The World Customs Organization has established six General Rules of Interpretation that must be applied in sequence to determine the correct classification. Understanding these rules is essential for any business that imports products that are not straightforward commodity items.

Rule One states that classification is determined by the terms of the headings and any relative section or chapter notes. This means you start by reading the actual text of the headings themselves. Rule Two extends Rule One to cover incomplete or unfinished articles and mixtures. Rule Three deals with goods that appear to fall in two or more headings — it requires classifying the goods according to the heading that gives the most specific description, or if equally specific, the heading that occurs last in the tariff schedule. Rule Four covers goods that cannot be classified by the first three rules — classify them under the heading for the goods they most resemble. Rule Five covers packaging and containers. Rule Six extends the first five rules to subheadings within a heading.

**■ WHY CLASSIFICATION IS WORTH GETTING RIGHT**

A single HS classification error, if it results in underpayment of duty, can expose your company to a penalty of up to four times the unpaid duty in the United States, plus interest. The statute of limitations for customs fraud in the US is five years, which means an error made today can be audited for the next five years. On a significant import program, the cumulative duty underpayment across five years can easily reach millions of dollars — and the penalties can reach tens of millions. Classification is worth investing in expert review.

## How Customs Calculates the Value of Your Goods

Knowing the HS code of your goods tells customs what duty rate to apply. But apply it to what? The duty rate is expressed as a percentage — but a percentage of what exactly? The answer is the customs value, and calculating the customs value correctly is an entire discipline in itself. The World Trade Organization Agreement on Customs Valuation establishes a hierarchy of six methods for determining customs value, and they must be applied in order.

### Method One: Transaction Value

The primary and most commonly used method is Transaction Value — the price actually paid or payable for the goods when sold for export to the country of importation. In plain terms, this is the invoice price. However, it is not always as simple as reading the number off the invoice. Customs may need to add to the invoice price certain amounts that are not included but should be — and exclude certain amounts that are included but should not be.

## ◆ CUSTOMS VALUATION CALCULATION

## CUSTOMS VALUE CALCULATION — TRANSACTION VALUE METHOD

INVOICE PRICE (FOB factory price): \$420,000

## ADDITIONS TO INVOICE PRICE (if not already included):

Assists (tooling paid by buyer, used by seller): \$25,000

(Buyer provided molds to the manufacturer)

Royalties and license fees related to goods: \$8,400

(2% royalty on invoice price per license)

Proceeds of resale accruing to seller: \$0

Buying commission (must NOT be added): \$0

(Buyer's agent commissions are excluded)

ADJUSTED TRANSACTION VALUE: \$420,000 + \$25,000 + \$8,400

= \$453,400

NOTE: For US customs, CIF value is NOT used.

US duty is calculated on FOB value.

EU and most other countries use CIF value.

## DUTY CALCULATION EXAMPLE (US, 5.8% rate):

Customs value: \$453,400

Duty:  $\$453,400 \times 5.8\% = \$26,297$

Without assists adjustment:  $\$420,000 \times 5.8\% = \$24,360$

Underpayment if assists not declared: \$1,937

## First Sale Valuation: A Powerful Duty Reduction Strategy

One of the most valuable and underutilized duty reduction strategies available to US importers is First Sale valuation. To understand it, consider the typical supply chain structure for many US importers. The importer places orders with a trading company or middleman in the source country, who in turn places orders with the actual factory. The importer pays the trading company's price, which includes the factory price plus the trading company's markup. Without First Sale, customs calculates duty on the price the importer paid to the trading company — the higher price. With First Sale valuation, the importer can declare the original factory price — the price from the factory to the trading company — as the basis for customs valuation.

## ◆ FIRST SALE VALUATION SAVINGS

## FIRST SALE VALUATION – DUTY SAVINGS EXAMPLE

## SUPPLY CHAIN:

Factory (China) -> Trading Co. (Hong Kong) -> US Importer

## INVOICES:

Factory invoice to Trading Co: \$8.50/unit (First Sale price)

Trading Co. invoice to Importer: \$11.00/unit (Last Sale price)

Annual import volume: 500,000 units

**LAST SALE VALUATION (standard method):**

**Customs value: 500,000 x \$11.00 = \$5,500,000**

**Duty rate: 12%**

**Annual duty: \$5,500,000 x 12% = \$660,000**

**FIRST SALE VALUATION (if qualifying):**

**Customs value: 500,000 x \$8.50 = \$4,250,000**

**Duty rate: 12% (same rate, lower base)**

**Annual duty: \$4,250,000 x 12% = \$510,000**

**ANNUAL DUTY SAVING: \$660,000 - \$510,000 = \$150,000**

Requirements: Both sales must be for export to US;  
documentation of first sale transaction is required;  
trading company must be a bona fide middleman, not an agent.

## Anti-Dumping and Countervailing Duties

Beyond the standard Most Favored Nation duty rates that apply to all imports from WTO members, two additional types of duties can dramatically increase the cost of importing certain products from certain countries: anti-dumping duties and countervailing duties. These are not standard tariffs. They are trade remedies — tools that governments use to counteract unfair trading practices by foreign exporters or foreign governments.

Anti-dumping duties are imposed when a foreign company sells goods in the importing country at a price that is below the cost of production or below the price at which it sells the same goods in its home market. This practice — called dumping — is considered unfair because it allows the foreign company to undercut domestic producers by selling at a loss, potentially driving them out of business. When domestic industries file a dumping petition and the investigation confirms dumping is occurring, the customs authority imposes an anti-dumping duty equal to the dumping margin — the difference between the fair value of the goods and the actual import price.

## ◆ ANTI-DUMPING DUTY IMPACT

## ANTI-DUMPING DUTY CALCULATION

PRODUCT: Solar panels from Chinese manufacturer

Fair market value (home market price): \$0.28 per watt

US import price (export price): \$0.19 per watt

Dumping margin:  $(\$0.28 - \$0.19) / \$0.28 = 32.1\%$

Anti-dumping duty rate: 32.1%

SHIPMENT: 1,000,000 watts of solar panels

Invoice value:  $1,000,000 \times \$0.19 = \$190,000$

Normal MFN duty (3.5%):  $\$190,000 \times 3.5\% = \$6,650$

Anti-dumping duty (32.1%):  $\$190,000 \times 32.1\% = \$60,990$

TOTAL DUTY: \$67,640

Effective duty rate:  $\$67,640 / \$190,000 = 35.6\%$

IMPACT: A product that cost \$190,000 now costs

\$257,640 after duties — a 35.6% increase.

Anti-dumping duties can make entire product categories uneconomical to import from the affected country.

## Section 301 Tariffs: The US-China Trade War

The most significant recent example of additional duties affecting global supply chains is the Section 301 tariffs imposed by the United States on Chinese imports beginning in 2018. Under Section 301 of the Trade Act of 1974, the US Trade Representative can impose additional duties on goods from countries that engage in unfair trade practices. The investigation of China's intellectual property practices, technology transfer requirements, and market access restrictions resulted in tariffs of fifteen to twenty-five percent on approximately three hundred and seventy billion dollars of Chinese goods annually.

For companies that had built their supply chains around low-cost Chinese manufacturing, these tariffs were a financial shock of the first order. A company importing one hundred million dollars of goods from China at a ten percent duty rate suddenly faced additional Section 301 tariffs of twenty-five percent — an additional twenty-five million dollars in annual duty. The choices were stark: absorb the cost, pass it to customers, or restructure the supply chain.

# 01

## CASE STUDY 1

### Westbrook Consumer Products

*Section 301 Tariff Response — From China to Vietnam in Eighteen Months*

## Background

Westbrook Consumer Products imports approximately sixty-five million dollars of consumer electronics accessories annually — phone cases, charging cables, earbuds, and portable speakers — all manufactured in Shenzhen, China. In July 2018, when the first tranche of Section 301 tariffs was imposed at twenty-five percent on electronics components, Westbrook faced an immediate and existential financial problem. Its entire product line was on the tariff list.

### ◆ SECTION 301 TARIFF RESPONSE ANALYSIS

#### WESTBROOK — SECTION 301 TARIFF FINANCIAL IMPACT

Annual imports from China: \$65,000,000

Previous duty rate (MFN): 3.4%

Previous annual duty:  $\$65,000,000 \times 3.4\% = \$2,210,000$

#### POST SECTION 301 TARIFFS:

MFN rate: 3.4%

Section 301 additional tariff: 25.0%

Combined rate: 28.4%

Annual duty:  $\$65,000,000 \times 28.4\% = \$18,460,000$

TARIFF INCREASE: \$16,250,000

As % of gross margin (assuming 40% GM):

Gross margin:  $\$65M \times 40\% = \$26M$

Tariff increase as % of GM:  $\$16.25M / \$26M = 62.5\%$

#### DECISION: Vietnam sourcing transition

Transition cost (tooling, qualification, delays): \$3,200,000

Vietnam manufacturing premium vs China: +\$0.08/unit

Annual manufacturing cost increase: \$1,400,000

Vietnam duty rate (GSP eligible products): 0-3.5%

Annual duty saving vs. China: approximately \$14,850,000

Net annual benefit of Vietnam shift: ~\$13,450,000

Payback period on transition costs: 2.9 months

## 02

### CASE STUDY 2

## Atlas Industrial Supply

*Binding Ruling — Getting Certainty Before a \$12M Import Program*

## Background

Atlas Industrial Supply was preparing to launch a new line of imported industrial filtration equipment from a German manufacturer. The annual import volume was projected at twelve million dollars. The finance team had classified the goods

under HS heading 8421 (centrifuges and filtering equipment) at a duty rate of zero percent. However, the German manufacturer's technical team suggested the products could alternatively be classified under HS heading 8543 (electrical machinery not elsewhere specified) at a rate of zero percent, or under HS heading 8479 (machines for various industrial purposes) at a rate of three point five percent. The classification was genuinely ambiguous and the financial stakes were significant.

#### ◆ BINDING RULING — FINANCIAL CASE

ATLAS — BINDING RULING FINANCIAL CASE

Annual import value: \$12,000,000

CLASSIFICATION SCENARIOS:

HS 8421 (filtering equipment): 0.0% = \$0 duty

HS 8543 (electrical machinery): 0.0% = \$0 duty

HS 8479 (industrial machinery): 3.5% = \$420,000 duty

RISK IF WRONG CLASSIFICATION USED FOR 3 YEARS:

If Atlas used 0% and customs says 3.5%:

Underpaid duty per year: \$420,000

3 years: \$1,260,000

Penalty (4x if gross negligence): \$5,040,000

Interest (0.5% per month x 36 months): \$226,800

TOTAL EXPOSURE: \$6,526,800

BINDING RULING REQUEST:

Filed with CBP Headquarters, NY

Processing time: 30 days

Cost: \$0 (free government service)

Outcome: CBP ruled HS 8421 at 0% duty

Atlas imports with certainty; no penalty risk

RISK ELIMINATED: \$6,526,800 potential exposure

## 03

### CASE STUDY 3

## MidWest Food Imports LLC

*Customs Valuation Audit — The \$2.8M Assists Discovery*

### Background

MidWest Food Imports had been importing specialty food products from a Thai manufacturer for seven years. The relationship worked well: MidWest provided the recipes, the proprietary spice formulations, and the packaging designs — all developed at a cost of approximately four hundred thousand dollars per year. The Thai manufacturer supplied these inputs in the goods it produced and invoiced MidWest only for the manufacturing cost. When CBP conducted a compliance audit, it

determined that the proprietary recipes and formulations were 'assists' — materials provided free of charge by the importer to the foreign producer and used in producing the imported goods — and should have been added to the customs value of every shipment.

◆ ASSISTS AUDIT IMPACT AND RESOLUTION

MIDWEST FOOD — ASSISTS AUDIT RESULT

Annual imports: \$18,000,000

Annual assists value (recipes, formulations, packaging IP): \$400,000

Assists as % of import value: 2.2%

DUTY UNDERPAYMENT CALCULATION (7 years):

Average MFN duty rate on food products: 8.5%

Annual assists value: \$400,000

Annual duty underpayment:  $\$400,000 \times 8.5\% = \$34,000$

7-year cumulative underpayment: \$238,000

Interest (0.5%/month x avg 42 months): \$49,980

Penalty (2x — negligence finding): \$476,000

TOTAL LIABILITY: \$763,980

RESOLUTION: Prior disclosure program

Penalty reduced to 50% for self-disclosure: \$238,000

Total settlement:  $\$238,000 + \$49,980 = \$287,980$

Saving from prior disclosure vs. audit: \$476,000

LESSON: Review all materials, tooling, IP, and services provided to foreign manufacturers. If they would normally charge for these inputs, the value must be added to the customs value. Ignorance is not a defense — it is merely a mitigating factor.