

# **ELECTROMECHANICAL DIGITAL COUNTERS FROM BRAZIL**

Determination of the Commission in  
Investigation No. 731-TA-453  
(Preliminary) Under the Tariff Act  
of 1930, Together With  
the Information Obtained  
in the Investigation

**USITC PUBLICATION 2273**

**APRIL 1990**

**United States International Trade Commission  
Washington, DC 20436**



**UNITED STATES INTERNATIONAL TRADE COMMISSION**

**COMMISSIONERS**

**Anne E. Brunsdale, Chairman**  
**Ronald A. Cass, Vice Chairman**  
**Alfred E. Eckes**  
**Seeley G. Lodwick**  
**David B. Rohr**  
**Don E. Newquist**

*Staff assigned:*

Jonathan Seiger, Investigator  
Ruben Moller, Commodity-Industry Analyst  
Howard Gooley, Economist  
Jerald Tepper, Accountant/Financial Analyst  
Scott Anderson, Attorney  
Vera Libeau, Supervisory Investigator

**Address all communications to**  
**Kenneth R. Mason, Secretary to the Commission**  
**United States International Trade Commission**  
**Washington, DC 20436**

## CONTENTS

	<u>Page</u>
Determination.....	1
Views of Commissioners Eckes, Rohr, Lodwick, & Newquist. ....	3
Dissenting views of Chairman Anne E. Brunsdale. ....	23
Additional views of Vice Chairman Ronald A. Cass. ....	33
Information obtained in the investigation.....	A-1
Introduction.....	A-1
The product.....	A-1
Description and uses.....	A-1
Substitute products.....	A-4
Manufacturing processes.....	A-5
U.S. tariff treatment.....	A-6
Nature and extent of the alleged sales at LTFV.....	A-6
The U.S. market.....	A-7
Apparent U.S. consumption.....	A-7
U.S. producers.....	A-11
Electromechanical digital counters.....	A-12
Mechanical digital counters.....	A-13
Electronic digital counters.....	A-13
U.S. importers.....	A-14
Channels of distribution, structure of demand, and classes of purchasers.....	A-15
Consideration of alleged injury to an industry in the United States..	A-18
U.S. capacity, production, and capacity utilization.....	A-18
Electromechanical digital counters.....	A-18
Electromechanical and mechanical digital counters.....	A-19
All digital counters.....	A-19
U.S. producers' domestic and export shipments.....	A-21
Electromechanical digital counters.....	A-21
Electromechanical and mechanical digital counters.....	A-21
All digital counters.....	A-21
U.S. producers' imports.....	A-23
U.S. producers' inventories.....	A-25
U.S. employment, wages, and productivity.....	A-26
Electromechanical digital counters.....	A-26
All digital counters.....	A-28
Financial experience of U.S. producers.....	A-29
Operations on electromechanical digital counters.....	A-30
Operations on all digital counters.....	A-30
Investment in productive facilities.....	A-30
Capital expenditures.....	A-37
Research and development expenses.....	A-37
Capital and investment.....	A-37
Consideration of the question of threat of material injury.....	A-38
U.S. importers' end-of-period inventories.....	A-40
Ability of foreign producers to generate exports and the availability of export markets other than the United States....	A-41

## CONTENTS

	<u>Page</u>
<b>Information obtained in the investigation--Continued</b>	
Consideration of the causal relationship between imports of the subject merchandise and the alleged material injury.....	A-43
U.S. imports.....	A-43
Electromechanical digital counters.....	A-43
All digital counters.....	A-43
U.S. market penetration by imports.....	A-45
Electromechanical digital counters.....	A-45
Electromechanical and mechanical digital counters.....	A-45
All digital counters.....	A-47
Prices of electromechanical digital counters.....	A-49
Questionnaire price data.....	A-49
Price trends.....	A-49
U.S. domestic electromechanical digital counters: sales to OEMs.....	A-50
U.S. domestic electromechanical digital counters: sales to distributors.....	A-51
Imports from Brazil: sales to OEMs.....	A-51
Imports from Brazil: sales to distributors.....	A-52
Price comparisons.....	A-52
Lost sales and lost revenues.....	A-54
Exchange rates.....	A-60

**Appendices**

A. <u>Federal Register</u> notices.....	B-1
B. List of participants in the public conference.....	B-7
C. U.S. industry data excluding the Veeder-Root Company.....	B-9
D. Comments received from U.S. producers on the impact of imports of electromechanical digital counters from Brazil on their on their growth, investment, ability to raise capital, or the scale of capital investments.....	B-11

**Tables**

1. Electromechanical digital counters: U.S. shipments, shipments of imports, and apparent U.S. consumption, 1987-89.....	A-8
2. Electromechanical and mechanical digital counters: U.S. shipments, shipments of imports, and apparent U.S. consumption, 1987-89.....	A-9
3. Digital counters: U.S. shipments, U.S. shipments of imports, and apparent U.S. consumption, 1987-89.....	A-10
4. Digital counters: U.S. capacity, production, and capacity utilization, by products, 1987-89.....	A-19
5. Electromechanical and mechanical digital counters: Shipments of U.S. producers, by types and by products, 1987-89.....	A-22
6. Digital counters: Shipments of U.S. producers, by types, 1987-89.....	A-23

## CONTENTS

	<u>Page</u>
Tables--Continued	
7. Digital counters: Imports by U.S. producers from Brazil and all other sources, by types, 1987-89.....	A-24
8. Digital counters: U.S. producers' inventories, by products, as of December 31, 1987-89.....	A-26
9. Total establishment employment and average number of production and related workers producing electromechanical digital counters and all digital counters, hours worked, wages and total compensation paid to such employees, and labor productivity, hourly compensation, and unit labor production costs, 1987-89.....	A-27
10. Income-and-loss experience of U.S. producers on the overall operations of their establishments within which electromechanical digital counters are produced, accounting years 1987-89.....	A-31
11. Income-and-loss experience of U.S. producers on their operations producing electromechanical digital counters, accounting years 1987-89.....	A-32
12. Income-and-loss experience of U.S. producers on their operations producing all digital counters, accounting years 1987-89.....	A-33
13. Selected income-and-loss data of U.S. producers on their operations producing electromechanical digital counters, by firms, accounting years 1987-89.....	A-34
14. Digital counters: Value of property, plant, and equipment of U.S. producers, accounting years 1987-89.....	A-35
15. Digital counters: U.S. importers' end-of-period inventories of imported products, by products and by sources, as of December 31, 1987-89.....	A-41
16. Electromechanical digital counters: Veeder-Root do Brasil's production, capacity, inventories, home market shipments, and exports to the United States and to all other markets, 1987-90.....	A-42
17. Digital counters: U.S. imports from Brazil and all other sources, by types, 1987-89.....	A-44
18. Electromechanical digital counters: U.S. producers' shipments, U.S. shipments of imports from Brazil and all other sources, and apparent consumption, 1987-89.....	A-46
19. Electromechanical and mechanical digital counters: U.S. producers' shipments, U.S. shipments of imports, and apparent consumption, 1987-89.....	A-47
20. Digital counters: U.S. producers' shipments, U.S. shipments of imports, and apparent consumption, 1987-89.....	A-48
21. Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for digital counter <u>Product 1</u> produced in the United States, by companies and by quarters, January 1987-December 1989.....	A-50
22. Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for digital counter <u>Product 2</u> produced in the United States, by companies and by quarters, January 1987-December 1989.....	A-51

## CONTENTS

	<u>Page</u>
<b>Tables--Continued</b>	
23. Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for digital counter <u>Product 3</u> produced in the United States, by companies and by quarters, January 1987-December 1989.....	A-51
24. Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for imports from Brazil, by products and by quarters, January 1987-December 1989.....	A-52
25. Electromechanical digital counters: Margins of under/overselling based on comparisons made between net U.S. f.o.b. selling prices of <u>Product 1</u> produced in the United States and of the same products imported from Brazil and sold to original equipment manufacturers, by quarters, January 1987-December 1989.....	A-53
26. Electromechanical digital counters: Margins of under/overselling based on comparisons made between net U.S. f.o.b. selling prices of <u>Product 2</u> produced in the United States and of the same products imported from Brazil and sold to original equipment manufacturers, by quarters, January 1987-December 1989.....	A-53
27. Electromechanical digital counters: Margins of under/overselling based on comparisons made between net U.S. f.o.b. selling prices of <u>Product 3</u> produced in the United States and of the same products imported from Brazil and sold to original equipment manufacturers, by quarters, January 1987-December 1989.....	A-54
28. Exchange rates: Nominal and real exchange rates of the Brazilian cruzado and producer price indexes in the United States and Brazil, by quarters, January 1987-December 1989.....	A-61
C-1. Digital counters: U.S. capacity, production, and capacity utilization, by products, 1987-89.....	B-10
C-2. Digital counters: Shipments of U.S. producers, by types and by products, 1987-89.....	B-10
C-3. Digital counters: U.S. producers' end-of-period inventories, by products, as of December 31, 1987-89.....	B-10
C-4. Total establishment employment and average number of production and related workers producing electromechanical digital counters and all digital counters, hours worked, wages and total compensation paid to such employees, and labor productivity, hourly compensation, and unit labor production costs, 1987-89.....	B-10

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.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-453 (Preliminary)

ELECTROMECHANICAL DIGITAL COUNTERS FROM BRAZIL

Determination

On the basis of the record<sup>1</sup> developed in the subject investigation, the Commission determines,<sup>2</sup> pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is no reasonable indication that an industry in the United States is materially injured or threatened with material injury, or that the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil of electromechanical digital counters,<sup>3</sup> provided for in subheading 9029.10.80 of the Harmonized Tariff Schedule of the United States (previously under item 711.98 of the former Tariff Schedules of the United States), that are alleged to be sold in the United States at less than fair value (LTFV).

Background

On February 27, 1990, a petition was filed with the Commission and the Department of Commerce by ENM Company, Chicago, IL, alleging that an industry in the United States is materially injured by reason of LTFV imports of electromechanical digital counters from Brazil. Accordingly, effective February 27, 1990, the Commission instituted preliminary antidumping investigation No. 731-TA-453 (Preliminary).

---

<sup>1</sup> The record is defined in sec. 207.2(h) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(h)).

<sup>2</sup> Chairman Brunsdale and Vice Chairman Cass dissenting.

<sup>3</sup> For purposes of this investigation, electromechanical digital counters are defined as devices or instruments for summing, either directly or through inference, and indicating a total number of units of any kind (items, events, pulses, length, etc.), whether or not resettable, wherein the units to be counted are detected by electrical means, and the count is displayed by rotating numbers on wheels.

Notice of the institution of the Commission's investigation and of a public conference 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 of March 7, 1990 (55 F.R. 8201). The conference was held in Washington, DC, on March 20, 1990, and all persons who requested the opportunity were permitted to appear in person or by counsel.

## VIEWS OF COMMISSIONERS ECKES, ROHR, LODWICK AND NEWQUIST

Based on the information obtained in this preliminary investigation, we determine that there is no reasonable indication that an industry in the United States is materially injured or is threatened with material injury<sup>1</sup> by reason of imports of electromechanical digital counters from Brazil that are alleged to be sold at LTFV.<sup>2</sup>

The legal standard in preliminary antidumping investigations is set forth in section 733(a) of the Tariff Act of 1930, 19 U.S.C. § 1673b(a), which requires the Commission to determine, based on the best information available at the time of the preliminary determination,<sup>3</sup> whether there is a reasonable indication of material injury to a domestic industry, or threat thereof, or of material retardation of establishment of such an industry, by reason of imports alleged to be sold at LTFV.

In American Lamb Co. v. United States, 785 F. 2d 994 (Fed. Cir. 1986), the Federal Circuit held that the purpose of preliminary determinations is to avoid the cost and disruption to trade caused by unnecessary investigations, and that the "reasonable indication" standard requires more than a finding that there is a possibility of such injury. Further, the Commission may weigh the evidence in determining whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury, threat of material

---

<sup>1</sup> Material retardation of the establishment of an industry is not an issue in this investigation and will not be discussed herein.

<sup>2</sup> Chairman Brunsdale and Vice-Chairman Cass dissent from the holdings regarding reasonable indication of material injury, but join in the discussion of like product and related parties. In addition, Chairman Brunsdale joins in the description of the condition of the industry contained in the section entitled "No Reasonable Indication of Material Injury."

<sup>3</sup> We note that the data received in this investigation are substantially complete, and there is little chance that additional significant data or contrary evidence will be uncovered in a final investigation.

injury, or material retardation; and (2) no likelihood exists that contrary evidence will arise in a final investigation."<sup>4</sup>

#### LIKE PRODUCT

To determine whether a "reasonable indication of material injury" exists, the Commission must first make factual determinations with respect to the "like product" and the "domestic industry." The term domestic "industry" is defined as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product..."<sup>5</sup> In turn, like product is defined 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..."<sup>6</sup> The Commission's decision regarding like product is essentially a factual determination. The Commission applies the standards "like" and "most similar in characteristics and uses" on a case-by-case basis.<sup>7</sup>

The Commission generally considers a number of factors in analyzing like product issues including: (1) physical characteristics, (2) end uses, (3) interchangeability, (4) channels of distribution, (5) common manufacturing facilities and production employees, (6) customer or producer perceptions,

---

<sup>4</sup> 785 F.2d at 1001-04. Commissioner Eckes' views concerning the legal standard for preliminary negative determinations are set forth in Shock Absorbers and Parts, Components, and Subassemblies Thereof from Brazil, Inv. No. 731-TA-421 (Preliminary) USITC Pub. 2128 (1988). He finds this standard to be satisfied in this preliminary investigation.

<sup>5</sup> 19 U.S.C. § 1677(A).

<sup>6</sup> 19 U.S.C. § 1677(10).

<sup>7</sup> Asociacion Colombiana de Exportadores (ASOCOLFLORES), 693 F. Supp. 1165, 1169 (Ct Int'l Trade 1988) (like product issue essentially one to be based on the unique facts of each case).

and, where appropriate, (7) price.<sup>8</sup> No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a given investigation. The Commission looks for "clear dividing lines" between like products,<sup>9</sup> and has found minor distinctions to be an insufficient basis for finding separate like products.<sup>10</sup>

The Department of Commerce has defined the imported product subject to this investigation as:

EMDC's from Brazil. EMDC's are defined as devices or instruments for summing, either directly or through inference, and indicating a total number of units of any kind (items, events, pulses, length, etc.), whether or not resettable, wherein the units to be counted are detected by electrical means, and the count is displayed by rotating numbers on wheels. EMDC's are currently classifiable under HTS subheading 9029.10.8000. The scope of this investigation does not include mechanical counters or electronic counters (i.e., light emitting diode counters (LEDC) and light crystal display counters (LCDC), etc.).<sup>11</sup>

This investigation raises three significant like product issues: These include: (1) whether low-cost, miniature electromechanical digital counters should be a separate like product from other electromechanical digital counters; (2) whether the like product should include mechanical counters; and (3) whether the like product should include electronic digital counters.

1. Low-cost electromechanical digital counters

The evidence before the Commission indicates that the lowest cost, smallest ("miniature") electromechanical counters are those produced by the

---

<sup>8</sup> See, e.g., Certain All-Terrain Vehicles from Japan, Inv. No 731-TA-388 (Preliminary), USITC Pub. 2071 (March 1988) at 6; ASOCOLFLORES, 693 F. Supp. at 1170 n.8.

<sup>9</sup> See, e.g. Operators for Jalousie and Awning Windows from El Salvador, Inv. Nos. 701-TA-272 and 731-TA-319 (Final), USITC Pub. 1934 (January 1987) at 4, n.4.

<sup>10</sup> ASOCOLFLORES, 693 F. Supp. at 1168-69; S. Rep. 249, 96th Cong., 1st Sess. 90-91 (1979).

<sup>11</sup> Federal Register, March 27, 1990 (55 F.R. 11034).

petitioner and imported by respondent Veeder-Root's Brazilian subsidiary. Another U.S. manufacturer, Durant, is a significant U.S. producer of these low-cost, miniature counters.<sup>12</sup> The non-resettable varieties of these products account for the bulk of the imported and U.S. made miniature, low-cost electromechanical digital counters.<sup>13</sup> The miniature, non-resettable electromechanical counters cost approximately double the non-resettable, low-cost electromechanical counters which are approximately 50 percent larger.<sup>14</sup>

Petitioner in this investigation, ENM Co., suggests that a separate "like" product of electromechanical digital counters exists for low-cost, miniature electromechanical digital counters.<sup>15</sup> Petitioner claims that these "low-cost" electromechanical counters are distinct from other high cost electromechanical counters identified by respondent Veeder-Root as being used for specialized applications such as for instruments. However, there is no evidence that there is any difference in function between the miniature and the larger size electromechanical counters. Both miniature and larger comparable counters are non-resettable, and perform the same basic counting functions under similar circumstances.<sup>16</sup>

Although miniature electromechanical digital counters are suitable for many end uses, by far the greatest share of these counters are used in amusement, gaming, vending and copying machines.<sup>17</sup> Given the similarity in

---

<sup>12</sup> Transcript at 108-09.

<sup>13</sup> Staff Report at A-3. The Staff Report contains a detailed technical description of the characteristics of the miniature, low cost electromechanical digital counters at A-3.

<sup>14</sup> Exhibit 4 to the Post Hearing Brief of ENM (Newark Catalogue). See also Product Catalogue of Veeder-Root at 24-25.

<sup>15</sup> "Electromechanical", "mechanical" and "electronic" counters are defined and described in detail in the Staff report at A-1 - A-4.

<sup>16</sup> See Product Catalogue of ENM and Veeder-Root setting forth the product specifications of the different types of electromechanical counters.

<sup>17</sup> Staff Report at A-3.

performance characteristics, there is no evidence that larger electromechanical counters cannot be used in similar end uses. The production processes, employees and basic design for both types of electromechanical counters are identical.<sup>18</sup> The distribution network for all different types of electromechanical counters is the same for both petitioner and respondent.<sup>19</sup>

While petitioner claims that its E6B series of electromechanical digital counter is "miniature", an examination of the samples produced at the preliminary conference and the product catalogues of both petitioner and respondent indicates only slight difference in size among the counter products. We note that the Commission has declined to find a separate like product based only on size differences, and has required other evidence of clear dividing lines such as differences in production processes and channels of distribution.<sup>20</sup>

Finally, we find that the difference in price (approximately double) between the low-cost, miniature counters and the larger counters is not a determinative factor in analyzing like product in this instance in view of the other evidence. Indeed, the Commission has not found price to be a controlling factor, in and of itself, creating a sharp dividing line between products.<sup>21</sup>

---

<sup>18</sup> Transcript at 10; Post Hearing Brief of Veeder-Root at 7.

<sup>19</sup> Transcript at 38; Post Hearing Brief of Veeder-Root at 7-8. While there is evidence that a select few electromechanical counters involve intricate, highly mechanized design and manufacturing processes, Transcript at 79, it appears that the bulk of the electromechanical digital counters are not complex, expensive, highly specialized products. For example, compare the product catalogues produced by the petitioner in the Petition, and the Veeder-Root catalogue as well as Exhibit 3 to the Post Hearing Brief of Petitioner.

<sup>20</sup> See e.g. Mechanical Transfer Presses From Japan, 731-TA-429 (Final), USITC Pub. 2257 (Feb. 1990) at 8 n.18 (and investigations cited therein).

<sup>21</sup> ASOCOLFLORES, 693 F. Supp. at 1170 n.8.

Based on the facts set forth above, the Commission cannot find evidence supporting a finding of a "clear dividing line" between miniature, low-cost electromechanical and other types of electromechanical digital counters. Accordingly, we find no separate like product for miniature electromechanical digital counters.

## 2. Mechanical digital counters

Petitioner also claims that "mechanical" digital counters should not be included in the like product definition. Petitioner claims that mechanical counters do not operate directly from electrical current and require the movement of a lever to operate the counting wheels.<sup>22</sup> Respondent Veeder-Root Company argues that a like product should be established for all counters, including electromechanical, mechanical, and electronic digital counters. Veeder-Root claims that there is little or no difference among the three types and that they all perform the same basic function -- to count.<sup>23</sup> It also asserts that all three counters can be designed for different types of uses such as vending machines, general factory machinery, gasoline pumps, textile machines and coin counters.<sup>24</sup> According to Veeder-Root, differences in size among the counters is not "relevant" because "all three can be made in any size, from miniature to large."<sup>25</sup>

The evidence indicates that mechanical digital counters are distinct in characteristics from electromechanical counters in that they do not operate

---

<sup>22</sup> Petition at 6. Further, petitioner argues that the lever requires the use of additional space outside the mechanical counter and the modification of many potential host machines for the use of a different counter such as electromechanical or electronic. Petitioner asserts that the cost of the mechanical counters is greater than the low-cost electromechanical counters it manufactures.

<sup>23</sup> Post-Hearing Brief of Veeder-Root at 4.

<sup>24</sup> Supplemental Information attached to Post Hearing Brief of Veeder-Root.

<sup>25</sup> Post Hearing Brief of Veeder-Root at 4 citing transcript at 65-66.

directly from electrical current and require the movement of a lever to operate the counting wheels.<sup>26</sup> Further, a major difference in the components between mechanical and electromechanical digital counters is a coil in the electromechanical counters. This coil is estimated to represent up to 40 percent of the cost of production for electromechanical digital counters.<sup>27</sup>

Significant differences exist as well between the end use applications of mechanical and electromechanical counters. For example, only mechanical digital counters can be used for lockers where no electricity is available.<sup>28</sup> In addition, a mechanical digital counter cannot be used if the end user must read the count away from the exact location of the machine's mechanical operation.<sup>29</sup>

While the evidence indicates that there is some overlap between electromechanical and mechanical digital counters in end use application, the two types of counters are primarily used in different applications. For example, mechanical counters are used predominately in end uses such as automotive odometers, water meters, vending machines, agricultural machines and textile machines.<sup>30</sup> Electromechanical counters are primarily used in applications such as gaming and vending machines.<sup>31</sup> Although there is evidence that it is possible to design an end use product using either a mechanical or electromechanical counter,<sup>32</sup> once an end product is designed,

---

<sup>26</sup> Petition at 6; Staff Report at A-4.

<sup>27</sup> Transcript at 39; Staff Report at A-5.

<sup>28</sup> Transcript at 118-19.

<sup>29</sup> Thus, if a copy machine lever is buried inside the copier and cannot be accessed, it would be necessary to use either a electromechanical or electronic counter with wire leads to the accessible location to read the counter. See transcript at 35.

<sup>30</sup> Supplemental Information to Post Hearing Brief of Veeder-Root.

<sup>31</sup> Id.

<sup>32</sup> Transcript at 10, 19-20, 35, 53, 79-80, 135, 150,

it is normally too expensive to re-tool the product to make it use an alternative type of digital counter.<sup>33</sup> Finally, the evidence reveals that mechanical digital counters tend to be more costly than electromechanical digital counters.<sup>34</sup>

Accordingly, we find mechanical counters are not "like" electromechanical counters and are not part of the like product in this investigation.

### 3. Electronic Digital Counters

Respondent Veeder-Root asserts that electronic digital counters should be included in the definition of the like product. It argues that increasingly electronic digital counters are replacing electromechanical counters and both are used in a variety of the same end use applications.<sup>35</sup> Petitioner contends that electronic digital counters should not be included in the like product definition because it claims that electronic counters have distinct parts, manufacturing processes and end uses, and a much higher price.

The evidence before the Commission suggests that there are a number of substantial differences in the characteristics, design and components of electronic digital counters and those of electromechanical or mechanical counters. First, electronic digital counters use solid-state circuitry to perform the counting functions.<sup>36</sup> These counters generally consist of a time-base generator, a signal gate, and decade-counting units.<sup>37</sup> None of these parts are found in either electromechanical or mechanical digital counters. In electronic counters, the count is displayed by light-emitting diode (LED)

---

<sup>33</sup> Id. at 150.

<sup>34</sup> Transcript at 36.

<sup>35</sup> Post Hearing Brief of Veeder-Root at 4-5.

<sup>36</sup> Staff Report at A-4.

<sup>37</sup> Id.

digits, or liquid crystal display (LCD) digits.<sup>38</sup> Mechanical and electromechanical counters display counts by use of numbered wheels. To assure that counts are not lost during electric power failures, some of the electronic counters are supplied with a built-in battery, or contain an electronic erasable and programmable read-only memory (EEPROM).<sup>39</sup> None of the mechanical or electromechanical digital counters have any of these characteristics. These different parts are reflected in a substantially different physical appearance and size between the electronic counters and the mechanical and electromechanical counters.<sup>40</sup>

Petitioner asserts that electronic counters typically are used in operations that require much faster counting than is achieved with an electromechanical counter.<sup>41</sup> We note that there is certain evidence in the record indicating that increasingly electromechanical and electronic digital counters are becoming interchangeable. For example, both petitioner and respondent indicate that either electronic or electromechanical counters can be used in the same end user products such as copiers, gaming machines,<sup>42</sup> coin counters, textile machines and general factory purposes.<sup>43</sup> Currently, more end user products are being designed to use electronic counters instead of electromechanical counters in such products as copiers and automobile odometers.<sup>44</sup>

---

<sup>38</sup> Id.

<sup>39</sup> Id.

<sup>40</sup> The Veeder-Root catalogue sets forth a number of complex, larger electronic totalizers which are very different in size and appearance from the electromechanical and mechanical digital counters.

<sup>41</sup> Petition at 6-7.

<sup>42</sup> Both Nevada and New Jersey law require that gaming slot machines using electronic counters have a electromechanical back-up.

<sup>43</sup> Supplemental Information submitted in Post Hearing Brief of Veeder-Root; Post Hearing Brief of Petitioner at 2.

<sup>44</sup> Transcript at 7-8, 99-102.

The production of electromechanical digital counters is very labor-intensive, while the production of electronic digital counters is capital-intensive.<sup>45</sup> Nevertheless, there is evidence in the record that at least one U.S. and one Brazilian digital counter manufacturer use the same assembly lines and workers to produce all three types of digital counters.<sup>46</sup> In addition, U.S. digital counter manufacturers market all three types of digital counters using the same distributor and OEM network.<sup>47</sup>

The cost to add a counting function to existing circuit boards in an end user product to create an electronic counter has been described as quite inexpensive.<sup>48</sup> However, where there is no existing appropriate circuit board available, the cost of electronic counters was estimated to be from two to ten times more expensive than low-cost mechanical or electromechanical counters.<sup>49</sup>

On balance, while some factors weigh in favor of including electronic counters, given the differences in design, size, appearance, manufacturing processes, parts and cost outlined above, the Commission finds that the evidence warrants not including electronic digital counters in the definition of the like product.

#### B. Domestic Industry

Based on the evidence in the record of this preliminary investigation and our conclusions regarding the like product, we find that the "domestic

---

<sup>45</sup> Staff Report at A-5. The Staff Report contains a description of the different production methods for the various types of digital counters at A-5, A-6.

<sup>46</sup> Staff Report at A-5 - A-6, A-11 - A-14, A-42; Post Hearing Brief of Veeder-Root at 4.

<sup>47</sup> Staff Report at A-16; Post Hearing Brief of Veeder-Root at 7.

<sup>48</sup> Transcript at 123. Mr. Dawson of Veeder-Root stated that "you get the counter free" if you have a display already for any reason such as in modern vending machines with existing electronic circuit boards. Id.

<sup>49</sup> Petition at 6.

industry" consists of those companies which produce electromechanical digital counters.

### C. Related Parties

The related parties provision, 19 U.S.C. § 1677(4)(B), allows for the exclusion of certain domestic producers from the domestic industry. Under that provision, when a producer is related to exporters or importers of the product under investigation, or is itself an importer of that product, the Commission may exclude such producers from the domestic industry "in appropriate circumstances." Application of the related parties provision is within the Commission's discretion based upon the facts presented in each case.<sup>50</sup>

The Commission generally applies a two-step analysis in determining whether to exclude a domestic producer from the domestic industry under the related parties provision. The Commission considers first whether the company qualifies as a related party under section 771(4)(B), and second whether in view of the producer's related status there are "appropriate circumstances" for excluding the company in question from the definition of the domestic industry.<sup>51</sup> The related parties provision may be employed to avoid any distortion in the aggregate data bearing on the condition of the domestic industry that might result from including related parties whose operations are shielded from the effects of the subject imports.<sup>52</sup>

The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude the related parties include:

---

<sup>50</sup> Empire Plow Co. v. United States, 675 F. Supp. 1348, 1352 (CIT 1987).

<sup>51</sup> See, e.g., Digital Readout Systems and Subassemblies Thereof from Japan, Inv. No. 731-TA-390 (Final), USITC Pub. 2150 (1989) at 15.

<sup>52</sup> Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 and 386 (Preliminary), USITC Pub. 2043 (1987) at 9.

- (1) the percentage of domestic production attributable to related producers;
- (2) the reason why importing producers choose to import the articles under investigation (viz., whether they import in order to benefit from the unfair trade practice or in order simply to be able to compete in the domestic market); and
- (3) the competitive position of the related domestic producer vis-a-vis other domestic producers.<sup>53</sup>

The Commission has also considered whether each company's books are kept separately from its "relations" and whether the primary interests of the related producers lie in domestic production or in importation.<sup>54</sup>

Respondent, Veeder-Root, is a "related party" because it is a domestic producer and the parent corporation of a wholly owned Brazilian subsidiary from which it imports electromechanical digital counters from Brazil. Veeder-Root argues that it should not be excluded from the definition of domestic industry because: (1) its primary interest is in domestic production and its imports are only a "minor" part of its product line, and (2) its exclusion would seriously distort the data as to the condition of the domestic industry.<sup>55</sup>

In 1989, Veeder-Root accounted for a significant percentage of the quantity and value of domestic production of electromechanical digital counters.<sup>56</sup> Exclusion of Veeder-Root from the electromechanical domestic industry would result in the elimination of a significant percentage of the

---

<sup>53</sup> See, e.g., Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats Therefor From Canada, Japan, Malaysia and Taiwan, Inv. Nos. 701-TA-292, 731-TA-400, 402-404 (Final), USITC Pub. 2152 (1989); Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. No. 731-TA-385-386 (Final), USITC Pub. 2112 (1988); Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. 1798 (1986).

<sup>54</sup> See, e.g., Rock Salt from Canada, Inv. No. 731-TA-239, USITC Pub. 1798 (1986) at 12.

<sup>55</sup> Post Hearing Brief of Veeder-Root at 10.

<sup>56</sup> Staff Report at A-13; Questionnaire response of Veeder-Root.

value of domestic production. Further, we find that exclusion of the largest U.S. manufacturer would skew the domestic industry data.

In addition, Veeder-Root is primarily a domestic U.S. producer, not an importer.<sup>57</sup> For example, Veeder-Root's imports of electromechanical counters from Brazil in 1989 accounted for only 15 percent by value of its electromechanical sales.<sup>58</sup> Veeder-Root has two U.S. manufacturing plants with substantial capacity and large numbers of employees which manufacture different types of electromechanical counters.<sup>59</sup>

Accordingly, we hold that Veeder-Root should not be excluded from the definition of the domestic industry.

#### **NO REASONABLE INDICATION OF MATERIAL INJURY<sup>60</sup>**

Under 19 U.S.C. § 1673b(a), the Commission must determine whether there is a reasonable indication that an industry in the United States is materially injured by reason of the subject imports. Material injury is "harm which is not inconsequential, immaterial or unimportant." 19 U.S.C. § 1677(7)(A). Commission determinations are not precedent, and rest on the record of each investigation.<sup>61</sup> In making a preliminary determination in an antidumping

---

<sup>57</sup> Post Hearing Brief of Veeder-Root at 10.

<sup>58</sup> Transcript at 81.

<sup>59</sup> Transcript at 72. Finally, the evidence indicates that Veeder-Root chose to import the counters from Brazil in order to fill out its product line, not to benefit from any alleged unfair trade practice. Transcript at 117.

<sup>60</sup> While Chairman Brunsdale joins in the discussion of the condition of the industry contained in this section, she does not reach a legal conclusion regarding the presence or absence of material injury based on this information. However, she finds the discussion of the condition of the industry helpful in determining whether any injury resulting from dumped imports is material. See Certain Light-Walled Rectangular Pipes and Tubes from Taiwan, Inv. No. 731-TA-410 (Final), USITC Pub. 2169 (March 1989) at 10-15 (Views of Chairman Brunsdale and Vice Chairman Cass). See Additional Views of Chairman Brunsdale, *infra*.

<sup>61</sup> E.g., *Citrosuco Paulista v. United States*, 704 F. Supp. 1075, 1088 (Ct. Int'l Trade (1988)).

investigation, the Commission is also charged with determining whether material injury to the domestic industry is "by reason of" the imports under investigation.<sup>62</sup> The Commission may take into account information concerning other causes of harm to the domestic industry, but it is not to weigh causes.<sup>63</sup> The imports need only be a cause of material injury.<sup>64</sup> The Commission should consider all relevant factors and conditions of trade in making its determination.<sup>65</sup>

We find that the record provides clear and convincing evidence that the electromechanical digital counter industry is not materially injured. Further, we find that no likelihood exists that any contrary evidence will arise in a final investigation. These conclusions are supported by the evidence collected in the investigation which is relevant to determine the condition of the domestic industry including, among other factors, domestic production, capacity, capacity utilization, shipments, inventories, employment, and profitability.<sup>66</sup>

Domestic shipments of electromechanical counters increased from 1987-88, and again from 1988-89.<sup>67</sup> During 1987-89, U.S. capacity to produce

---

<sup>62</sup> 19 U.S.C. § 1673b(a).

<sup>63</sup>Current law does not... contemplate that the effects from the subsidized [or LTFV] imports be weighted against the effects associated with other factors (e.g., the volume and prices of nonsubsidized [LTFV] imports, 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 performance and productivity of the domestic industry) which may be contributing to overall injury to an industry.

S. Rep. No. 249, 96th Cong. 1st Sess. 57-58, 74 (1979)

<sup>64</sup> *Citrosuco Paulista, S.A. v. United States*, 704 F. Supp. 1075, 1088 (Ct. Int'l Trade 1988); *Hercules, Inc. v. United States*, 673 F. Supp. 454, 479 (1987).

<sup>65</sup> 19 U.S.C. § 1677(7)(C)(iii) (Supp. 1989).

<sup>66</sup> 19 U.S.C. § 1677(3)(C)(iii).

<sup>67</sup> *Id.* at A-22.

electromechanical digital counters increased,<sup>68</sup> as did capacity utilization.<sup>69</sup> Inventories of electromechanical digital counters increased from 1987-88, and then fell in 1989 to below their 1987 level.<sup>70</sup> Net sales of electromechanical digital counters increased from 1987-89.<sup>71</sup>

Employment and the number of hours worked in the electromechanical digital counter industry fell slightly from 1987-89.<sup>72</sup> However, wages and total compensation paid to these employees increased throughout the period.<sup>73</sup> Moreover, labor productivity increased sharply during the period.<sup>74</sup>

Operating income margins as a percent of sales were relatively high during 1987-89,<sup>75</sup> and rose slightly between 1987-88 and fell slightly from 1988-89.<sup>76</sup> While one of the four firms producing electromechanical digital counters had slight losses, the industry as a whole maintained a strong financial position during 1987-89.<sup>77</sup> Moreover, the industry had relatively high cash flows and increased capital expenditures over the period of investigation.<sup>78</sup>

We conclude that the domestic industry is not experiencing material injury. Accordingly, we find it unnecessary to make a determination with

---

<sup>68</sup> Id. at A-19.

<sup>69</sup> Id.

<sup>70</sup> Id. at A-25.

<sup>71</sup> Id. at A-30.

<sup>72</sup> Id. at A-26.

<sup>73</sup> Id.

<sup>74</sup> Id. at 26.

<sup>75</sup> Id. at A-31 - A-34.

<sup>76</sup> Id.

<sup>77</sup> Id.

<sup>78</sup> Staff Report at A-35, Table 14.

respect to whether there is a reasonable indication from the record whether any present material injury is by reason of imports.<sup>79</sup>

#### NO REASONABLE INDICATION OF THREAT OF MATERIAL INJURY

Section 771(7)(F) of the Tariff Act of 1930 directs the Commission to determine whether a U.S. industry is threatened with material injury by reason of imports "on the basis of evidence that the threat of material injury is real and that actual injury is imminent."<sup>80</sup> The Commission must consider the following ten factors in the threat analysis:

(I) if a 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 subsidy is an export subsidy inconsistent with the Agreement.

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate probability that importation (or sale for importation) of the

---

<sup>79</sup> American Spring Wire Corp. V. United States, 8 C.I.T. 20, 590 F. Supp. 1273 (1984), *aff'd sub nom.*, Armco, Inc. V. United States, 760 F.2d 249 (Fed. Cir. 1985); National Association of Mirror Manufacturers v. United States, 12 CIT \_\_\_, Slip Op. 88-113 (Aug. 25, 1988).

<sup>80</sup> In addition, the Commission must consider whether dumping findings or antidumping remedies in markets of foreign countries against the same class of merchandise suggest a threat of material injury to the domestic industry. See 19 U.S.C. section 1677(7)(F)(iii), as amended by 1988 Act section 1329.

merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,

(VIII) the potential for product shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 1671 or 1673 of this title or to final orders under section 1671e or 1673e of this title, are also used to produce the merchandise under investigation,

(IX) in any investigation under this title which involves imports of both raw agricultural product (within the meaning of paragraph (4)(E)(iv) and any product processed from such raw agricultural product, the likelihood there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and

(X) the 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 like product.<sup>81</sup>

We consider these factors, where relevant, in turn.<sup>82</sup>

There is no evidence that there will be any significant increase in Brazilian exports to the U.S. in the near future.<sup>83</sup> Trends regarding Brazilian capacity are confidential, but they do not support the conclusion that there is an actual and imminent threat of material injury.<sup>84</sup> In addition, respondent Veeder-Root indicates that it does not plan to increase exports to the U.S.<sup>85</sup> Veeder-Root's Brazilian subsidiary exports approximately half of its electromechanical production to Europe and intends to continue exporting at those levels in the future.<sup>86</sup>

---

<sup>81</sup> 19 U.S.C. § 1677(7)(F)(i), as amended by 1988 Act §§ 1326(b), 1329.

<sup>82</sup> We note that there is no subsidy alleged (factor I) or any raw agricultural product (factor IX) involved in this investigation.

<sup>83</sup> Staff Report at A-43.

<sup>84</sup> Staff Report at A-42, Table 16.

<sup>85</sup> Questionnaire Response of Veeder-Root.

<sup>86</sup> Post-Hearing Brief of Veeder-Root at 18. We note that Staff was unable to obtain foreign industry data from one of the two Brazilian producers of

(continued...)

Domestic market penetration by Brazilian imports has not increased rapidly.<sup>87</sup> Much of the increase in Brazilian imports appears to be due to one transaction which the evidence indicates had no impact on the condition of the U.S. industry.<sup>88</sup> Further, Brazilian import share of the domestic market is small.<sup>89</sup> Apparent U.S. consumption of electromechanical digital counters rose in terms of both quantity and value between 1987-89.<sup>90</sup> Although current U.S. inventories of imports of Brazilian electromechanical digital counters have increased, these inventories represent only a small fraction of current domestic consumption of electromechanical counters.<sup>91</sup>

The likelihood that any increased imports from Brazil will increase market penetration to an "injurious" level must be examined in the context of the strong financial condition of the U.S. electromechanical digital counter industry. We find that given the strong profits, increased production and productivity, and recent increased investments, that the U.S. electromechanical digital counter industry is not in a vulnerable condition. Thus, even if imports from Brazil were to continue to increase, there is not a "actual" and "imminent" threat that these imports would cause material injury to the U.S. industry.

---

<sup>86</sup>(...continued)

electromechanical counters. Based on the confidential information in the record, we find that even if this missing data were to show large unused foreign capacity, and even if that capacity would be used to generate increased exports to the United States, the strong condition of the domestic industry indicates that there is no reasonable indication that the domestic industry would be subject to material injury. Staff Report at A-42 - A-44.

<sup>87</sup> Staff Report at A-45 - A-46.

<sup>88</sup> The details of this transaction are confidential and are contained within the record of the investigation.

<sup>89</sup> Staff Report at A-46.

<sup>90</sup> Id. at A-7.

<sup>91</sup> Id. at A-8, A-41, A-46.

Any evidence that the subject Brazilian imports have had a depressing effect on U.S. prices also must be examined in the context of the strong condition of the domestic industry. There is evidence in the record that unit prices decreased between 1987-89.<sup>92</sup> This and other evidence substantiating lost sales alleged by petitioner suggests that the Brazilian imports had some depressing effect on unit prices during this period.<sup>93</sup> Nevertheless, during this period in which prices have declined, the overall profitability of the domestic industry remained relatively constant, domestic production increased and the market share of the Brazilian imports increased only slightly. Thus, there is no evidence that the future price suppressing effects of the imports, if any, create an "actual" or "imminent" material injury threat to the domestic industry.

In short, we find that the record on the whole contains clear and convincing evidence that there is no threat of "imminent" and "actual" material injury to the U.S. industry by reason of the subject Brazilian imports.

#### CONCLUSION

Based on the information obtained in this preliminary investigation, we find that there is no reasonable indication of material injury or threat of material injury by reason of imports of electromechanical digital counters from Brazil that are alleged to be sold at less than fair value.

---

<sup>92</sup> Id. at A-21.

<sup>93</sup> Id. at A-21, A-54 - A-60. We note that the decline in unit values appears to be caused, in part, by an increase in demand for low-cost electromechanical digital counters by gaming and vending machines during 1987-89. Transcript at 25-26.



**DISSENTING VIEWS OF CHAIRMAN ANNE E. BRUNSDALE**

**Electromechanical Digital Counters from Brazil  
Inv. No. 731-TA-453 (Preliminary)**

April 13, 1990

I respectfully dissent from the negative determination reached by a majority of my colleagues. I concur with the majority's determinations regarding like product, domestic industry, and related parties, as well as its description of the condition of the industry. However, I do not join in the determination that, based on this information alone, there is no reasonable indication of material injury. I differ from my colleagues in that I do not accept that an analysis of the condition of the domestic industry is sufficient to establish that a domestic industry is, or is not, injured by reason of dumped imports -- the latter being the issue the statute requires us to address.<sup>1</sup> Further, I do not believe that an independent legal determination based on the condition of the industry is either required by the statute or useful.<sup>2</sup>

Here I set forth my views on causation -- in the words of the statute, the "by reason of" issue -- in the current case. Before turning to my analysis, however, it is important to review

---

<sup>1</sup> 19 U.S.C. 1673(2).

<sup>2</sup> See Certain Light-Walled Rectangular Pipes and Tubes from Taiwan, Inv. No. 731-TA-410 (Final), USITC Pub. 2169 (March 1989) at 10-15 (Views of Chairman Brunsdale and Vice Chairman Cass). I do, however, find the discussion of the condition of the domestic industry helpful in determining whether any injury resulting from dumped imports is material.

the standard under which the Commission makes decisions in a preliminary investigation.

Applicable Standard in Preliminary Determinations

The statute governing dumping and countervailing duty investigations provides that, within 45 days following the institution of an investigation, the Commission must determine whether the evidence of record establishes "a reasonable indication" of material injury, threat of material injury, or retardation of the establishment of an industry, by reason of the subject imports.<sup>3</sup> The Commission, citing American Lamb Co. v. United States,<sup>4</sup> has interpreted the statute to allow a negative preliminary determination only when (1) the record contains clear and convincing evidence that there is no material injury to a domestic industry and (2) there is no likelihood that evidence of such injury will be developed through further investigation.<sup>5</sup> In its preliminary decisions, the Commission has implemented the American Lamb standard by evaluating all of the evidence on the record to determine whether the record as a whole demonstrates

---

<sup>3</sup> 19 U.S.C. § 1671b(a), 1673b(a). For convenience, and because I determine that the record provides a reasonable indication of material injury, this discussion will consider only injury.

<sup>4</sup> 785 F.2d 994 (Fed. Cir. 1986).

<sup>5</sup> See, e.g., Sewn Cloth Headwear from the People's Republic of China, Inv. No. 731-TA-405 (Preliminary), USITC Pub. 2096 (July 1988) at 7.

the requisite likelihood that the Commission will render an affirmative final determination.<sup>6</sup>

I have addressed the nature of the preliminary standard in some detail in New Steel Rails from Canada<sup>7</sup> and Electrolytic Manganese Dioxide from Greece, Ireland, and Japan (EMD).<sup>8</sup> In Rails, I reviewed the procedural history of the preliminary standard, the legislative pronouncements on the subject, and the judicial actions addressing the issue. I noted that, under the statutory language and the judicially approved procedures for implementing that language, the Commission will render a negative determination "either because the evidence supporting the allegations in the petition does not amount to a 'reasonable indication of injury' or because the contrary evidence is so clear and convincing that any evidence supporting the petition did not amount to a reasonable indication."<sup>9</sup> In EMD I addressed

---

<sup>6</sup> Indeed, this was the central issue in American Lamb, i.e., whether the Commission could weigh the evidence on the record or was restricted to consideration of the evidence supporting an affirmative determination.

<sup>7</sup> Inv. Nos. 701-TA-297 and 731-TA-422 (Preliminary), USITC Pub. 2135 (November 1988) at 55-68 (Views of Acting Chairman Anne E. Brunsdale).

<sup>8</sup> Inv. Nos. 731-TA-406 - 408 (Preliminary), USITC Pub. 2097 (July 1988) at 21-25 ((Additional Views of Vice Chairman Anne E. Brunsdale, Commissioner Susan Liebeler, and Commissioner Ronald A. Cass).

<sup>9</sup> New Steel Rails, supra, USITC Pub. 2135 at 67-68 (emphasis in original, footnote omitted); see also Shock Absorbers and Parts, Components, and Subassemblies Thereof from Brazil, Inv. No. 731-TA-421 (Preliminary), USITC Pub. 2128 (September 1988) at 5 ("[T]he Commission . . . may issue a negative preliminary determination if some evidence on the record supports an

(continued...)

the quantity of evidence necessary to support a preliminary determination:

The Commission should reach negative determinations when the evidence now on the record on balance does not lend enough support to the Petitioner's claims to provide at least a colorable basis for an affirmative determination and when the relevant information that remains to be gathered does not leave open the prospect that any judgment made on the current record well might be changed at the final determination stage.<sup>10</sup>

Applying this standard -- derived from the language and history of the dumping and countervailing duty statutes in light of judicial pronouncements on the preliminary standard -- I am compelled to conclude in this case that the evidence on the record, as discussed below, provides a reasonable indication of material injury to a domestic industry.

#### Material Injury by Reason of Dumped Imports

While the record in a preliminary antidumping investigation is less developed than in a final and the standard for reaching an affirmative decision is lower, I am required to answer the same basic question in both instances. I therefore find it useful to employ the same simple tools of economic analysis in this case as I have utilized in final investigations. By using economic analysis, one can examine directly -- as our governing statute

---

<sup>9</sup>(...continued)

affirmative determination, or even if there is some reasonable doubt about whether an affirmative determination is warranted, as long as the evidence refuting the allegations of a petition is clear and convincing").

<sup>10</sup> EMD, supra, USITC Pub. 2097 at 23-24.

requires -- the impact of the imports in question on the domestic industry, the nature of any such impact, and finally whether that impact constitutes material injury.<sup>11</sup>

Effect on Prices and Volumes Sold by the Domestic Industry. In any antidumping investigation, I must consider how the dumping has affected the demand for the domestic like product. I know from basic economic principles that the imports will, in most cases, tend to reduce demand for the domestic product. I must determine whether such a reduction occurred and, if so, how large it was.

Two factors are of particular importance in evaluating this effect. The first is the substitutability between the domestic product and the subject imports. The more substitutable the domestic and imported products, the greater the effect of any dumping on the domestic industry, because more of the purchasers

---

<sup>11</sup> A more thorough discussion of the economic analysis I use in my approach to causation analysis is contained in Internal Combustion Forklift Trucks from Japan, Inv. No. 731-TA-377 (Final), USITC Pub. 2082, at 66-83 (May 1988) (Additional Views of Vice Chairman Anne E. Brunsdale); see also Color Picture Tubes from Canada, Japan, the Republic of Korea, and Singapore, Inv. Nos. 731-TA-367-370 (Final), USITC Pub. 2046, at 23-32 (December 1987) (Additional Views of Vice Chairman Anne E. Brunsdale); Cold-Rolled Carbon Steel Plates and Sheets from Argentina, Inv. No. 731-TA-175 (Final) (Second Remand), USITC Pub. 2089, at 31-51 (June 1988) (Additional Views of Vice Chairman Anne E. Brunsdale). The Court of International Trade has also discussed with approval the use of elasticities. See Copperweld Corp. v. United States, No. 86-03-00338, slip op. 88-23, at 45-48 (Ct. of Int'l Trade February 24, 1988); USX Corp. v. United States, 12 CIT \_\_\_\_\_, slip op. 88-30, at 19 (March 15, 1988); Alberta Pork Producers' Marketing Board v. United States, 11 CIT \_\_\_\_\_, 669 F.Supp. 445, 461-65 (1987).

of the domestic product will switch to the imported product if it is sold at a dumped price. The second factor is the effect of a change in price on the total demand for the product. More of any increase in sales of imports will come at the expense of reduced sales by domestic producers if the expansion in total sales from a reduction in price is small. As a result, the lower the price-responsiveness of total sales, the greater the effect of any dumping.<sup>12</sup>

The record in this case provides the following description of the uses to which electromechanical digital ("EMD") counters are put:

Digital counters are widely used in industry and are integrated in a multitude of end products. They are used, for example, to count the number of end products produced by a machine; to count the rotations of a wheel or a moving part of a machine; or to count the number of times a product has been exposed to certain test procedures. Digital counters may be integrated in coin-operated amusement machines, gaming machines and vending machines, copying machines, speedometer assemblies, voting machines, water, gas and electric meters, metal working machines, and textile machines.<sup>13</sup>

On the basis of this description, it is clear that the demand for digital counters is a derived demand -- that is, digital counters are used as a part of other types of machinery rather than being demanded directly by consumers.<sup>14</sup> Further, the

---

<sup>12</sup> The effect of any dumping will also depend on the responsiveness of domestic production and of imports to changes in price. However, as the record in this preliminary investigation provides no information on these factors, I do not consider them here.

<sup>13</sup> Staff Report at A-2.

<sup>14</sup> See also Id. at A-17.

cost of an EMD counter constitutes a very small portion of the total cost of the machines in which they are used.<sup>15</sup> As a result, the demand for counters is unlikely to change substantially in response to a change in price. Imported counters also appear to be good substitutes for the domestic product.<sup>16</sup> The lack of demand responsiveness to changes in price and the good substitutability between imports and domestic EMD counters increases the likelihood that any dumping may result in material injury to the domestic industry in the present case.

Import Penetration by Unfair Imports and the Dumping Margin. Two other factors that are important in determining the effect of any dumping are the share of the domestic market accounted for by the unfairly traded imports and the size of the dumping margin. The larger the share of unfairly traded imports in the U.S. market, the greater will be the effect that any change in the imports' price will have on the demand for the offerings of other producers -- including both domestic producers and other sources of imports. Thus, it is more likely that domestic producers have been materially injured when the penetration level of the unfairly traded imports is high.

The dumping margin is important because it provides information about the extent to which the price of the unfair

---

<sup>15</sup> At least when purchased in large quantities, EMD counters generally sell for less than \$5.00. (Id. at A-49 - A-54.)

<sup>16</sup> Id. at A-16.

imports is reduced by the dumping. If the dumping margin is large, the unfair importation of the subject imports is likely to have had a relatively larger effect on the domestic industry.

In the current case, import penetration is not particularly great when measured in value terms. In 1989, imports of EMD counters from Brazil accounted for [\*\*\*] percent of the value of U.S. consumption of such counters.<sup>17</sup> When measured in quantity terms, the level is somewhat higher -- though less than 25 percent.<sup>18</sup>

In a preliminary investigation, the only information on the dumping margin is contained in the allegations of the petitioner. In the current case, petitioner alleges very substantial dumping margins -- up to 141 percent.<sup>19</sup> Upon further investigation, the Department of Commerce might well find that the dumping margin is not that high.<sup>20</sup> However, the petitioner's allegations are the best information currently available.

---

<sup>17</sup> Id. at A-46. The comparable figures for 1987 and 1988 are [\*\*\*] percent, respectively.

<sup>18</sup> Id. In quantity terms, imports from Brazil accounted for [\*\*\*] percent of U.S. consumption in 1989. The comparable figures for 1987 and 1988 are [\*\*\*], respectively.

<sup>19</sup> Staff Report at A-7.

<sup>20</sup> This is particularly true in a case like this one where the alleged dumping margins are based on petitioner's estimate of the cost of production in Brazil derived from its own costs of production, and not on any actual data on prices charged in a foreign country or on actual costs incurred by the foreign producer. (Petition at 14-30)

Conclusion

Based on the evidence available to us in this preliminary investigation, I believe that there is "a reasonable indication of material injury" to the domestic industry producing electromechanical digital counters as a result of dumping of such counters from Brazil. The demand for these counters does not appear particularly responsive to changes in price and imports are apparently close substitutes for domestic production. As a result, any dumped imported EMD counters are likely to reduce sales of domestic counters. In addition, while further investigation might show the alleged dumping margin to be incorrect, the available evidence in this preliminary investigation suggests that imported EMD counters from Brazil are being sold at prices that are substantially below "fair" levels.



## ADDITIONAL VIEWS OF VICE CHAIRMAN RONALD A. CASS

Electromechanical Digital Counters from Brazil  
Inv. No. 731-TA-453 (Preliminary)

I must respectfully dissent from the conclusions reached by my colleagues in this investigation. There exists, in my view, a reasonable indication that an industry in the United States has been materially injured by reason of electromechanical digital counters from Brazil.

I do not believe that the case for the Petitioner rises much above the statutory floor for affirmative determinations in preliminary investigations. But I would have thought the case easily cleared the standards generally used by several of my colleagues today voting in the negative. We do not here address a major industry, well-financed, able to present a case that best supports the Petition. In these circumstances, I believe the law indicates that the Commission is to be more than ordinarily generous in applying the legal standards for preliminary investigations, not less generous.

Although I believe that a plausible case for a negative determination could be made here, I am particularly troubled by the appearance in this and other recent investigations that Petitions on behalf of smaller industries are held to higher standards than

Petitions that come from larger industries. The willingness of some Commissioners to reach a negative determination on the Petition before them today is puzzling in light of the standards by which these Commissioners claim to evaluate preliminary investigations, raising questions similar to those noted in another recent determination, Plastic Tubing Corrugators from Canada.<sup>1/</sup> The criteria generally employed by today's majority in past preliminary investigations are extraordinarily favorable to Petitioners,<sup>2/</sup> and moreover, in this investigation the majority has adopted a definition of the domestic industry most favorable to Petitioners' position.<sup>3/</sup> Nevertheless, the majority has reached a negative determination here. Consistent with their continuing practice, I have not been permitted to examine the relevant portion of their opinion in this investigation,<sup>4/</sup> and thus do not know whether the

---

<sup>1/</sup> Inv. No. 701-TA-301 (Preliminary), USITC Pub. 2246 (December 1989) (Dissenting Views of Vice Chairman Cass).

<sup>2/</sup> American Lamb Co. v. United States, supra, 785 F.2d at 1001; see also Yuasa-General Battery Corp. v. United States, 688 F. Supp. 1551, 1553-54 (Ct. Int'l Trade 1988). For particularly direct statements of the substantive standards employed even in final investigations, see, e.g., Certain Telephone Systems and Subassemblies Thereof from Japan and Taiwan, USITC Pub. 2237, Inv. Nos. 731-TA-426 and 428 (Nov. 1989) (Additional Views of Commissioner Eckes); New Steel Rails from Canada, USITC Pub. 2217, Inv. Nos. 701-TA-297 and 731-TA-422 (Final) (Additional Views of Commissioner Eckes) (Additional Views of Commissioner Rohr).

<sup>3/</sup> See Views of Commissioners Eckes, Rohr, Lodwick, and Newquist, supra.

<sup>4/</sup> Consistent with that practice, as a dissenting member of the Commission, I have been permitted to see the portion of the majority's opinion dealing with issues respecting like product and the definition of the domestic industry, but not those portions that explain the basis for the majority's negative determination with respect to material injury. This practice has been explicitly

majority decision is cast in terms of separate analysis of "injury" and "causation" nor, if it is, whether the negative determination is predicated on the first or second of these inquiries. Given past practices by the majority, I find it difficult to understand how a negative decision could be predicated on either of these grounds.<sup>5/</sup> I trust that the majority opinion explains in some detail to the public the standards that now guide these Commissioners' disposition of preliminary investigations, or, alternatively, the manner in which their continuing standards permit their negative determination today.

#### I. Like Product and Domestic Industry

##### a. Like Product

Under Title VII of the Tariff Act, the Commission must assess the effects of less than fair value ("LTFV") imports on the industry in the United States comprised of "the domestic producers as a whole of a like product or those producers whose collective output of the like product constitutes a major proportion of the total domestic

---

criticized by our reviewing court. See Borlem S.A. v. United States, Ct. No. 87-06-00693, slip op. 89-93, at 24, note 4 (Ct. Int'l Trade, June 29, 1989).

<sup>5/</sup> Generally, the majority treats "injury" as synonymous with "poor health," which usually is found unless industry performance trends strongly upward. Even then, as a member of today's majority has noted, injury may be found. See New Steel Rails from Canada, supra (Additional Views of Commissioner Rohr). As I noted in Plastic Tubing Corrugators, supra at 43, one Commissioner apparently never once over a five-year period found an occasion in which a petitioner failed to satisfy his causation standard. Yet that same Commissioner today has reached a negative determination, perhaps on causation grounds.

production of that product."<sup>6/</sup> The term "like product," in turn, is defined 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."<sup>7/</sup> In revising Title VII, Congress has indicated satisfaction with the Commission's interpretation of these terms.

In defining a like product, the Commission has examined information about the following: (1) product characteristics and uses, (2) interchangeability of products, (3) channels of distribution, (4) customer or producer perceptions of the relevant articles, (5) the similarity (or disparity) of prices for imports and potential like domestic products,<sup>8/</sup> and (6) presence or absence of common manufacturing equipment, facilities, and production employees.<sup>9/</sup> These factors provide the Commission with information about the similarity or dissimilarity of the markets in which imports and arguably "like" domestic products compete.<sup>10/</sup> The last factor also indicates the degree to which production of arguably "unlike" products is actually integrated into a single industry.

---

<sup>6/</sup> 19 U.S.C. § 1677(4).

<sup>7/</sup> 19 U.S.C. § 1677(10).

<sup>8/</sup> See, e.g., *Asociacion Colombiana de Exportadores de Flores v. United States*, 12 Ct. Int'l. Trade \_\_\_, 693 F. Supp. 1165, 1170 n.8 (citing use of comparative pricing data as a suitable factor in analyzing like product issues).

<sup>9/</sup> See, e.g., *Fabric and Expanded Neoprene Laminate from Taiwan*, USITC Pub. 2032, Inv. No. 731-TA-371 (Final) at 4 and n. 5 (Nov. 1987).

<sup>10/</sup> *Digital Readout Systems and Subassemblies Thereof from Japan*, Inv. No. 731-TA-390 (Final), at 64 (March 1989) (Concurring and Dissenting Views of Commissioner Cass).

These appear to be appropriate criteria for defining "like" products.

In the instant investigation, Petitioner proposes a rather narrow like product definition. Petitioner ENM suggests that the Commission should define a single like product consisting of low-cost, miniature electromechanical digital counters. These low cost counters, priced in the range of \$5 to \$15, Petitioner claims are distinct from other electromechanical counters which cost upwards of \$25.<sup>11/</sup> Petitioner produces only the low cost electromechanical digital counters at its Chicago plant, and claims that the characteristics of this product distinguish it from the more expensive variety.

Petitioner also argues that mechanical digital counters should not be included in the like product definition. Petitioner claims that mechanical counters do not operate directly from electrical current and require the movement of a lever to operate the counting wheels. Further, Petitioner argues that the lever requires the use of additional space outside the mechanical counter and the modification of many potential host machines for the use of electromechanical or electronic counters.<sup>12/</sup> Electronic counters should not be included in the like product definition, Petitioner contends, since those are allegedly used for more sophisticated operations and require the use of microprocessors.<sup>13/</sup> They are also

---

<sup>11/</sup> Transcript at 79, 147-48.

<sup>12/</sup> Petition at 6.

<sup>13/</sup> Id.

capable of significantly faster counting than electromechanical digital counters, and are used when faster counting is required. Thus electromechanical digital counters and electronic counters are distinguished in end use. Further, electronic counters are at least twice as expensive as electromechanical digital counters.<sup>14/</sup>

Respondent Veeder-Root argues that a like product should be established for all counters, including electromechanical, mechanical, and electronic digital counters. Veeder-Root claims that there is little or no difference among the three types and that they all perform the same basic counting function.<sup>15/</sup> It also asserts that all three counters can be designed for different types of uses such as vending machines, general factory machinery, gasoline pumps, textile machines, and coin counters. According to Veeder-Root, differences in size among the counters is not relevant because all three can be made in any size from miniature to large.<sup>16/</sup> It states that it sells all three types of counters using the same channels of distribution, both to OEM customers and to distributors. Further, Veeder-Root claims that it produces all three types of counters in its plants using the same employees and production processes, and believes that Durant, another large US digital counter producer does so as well.<sup>17/</sup> Veeder-Root states that it imports its small model from Brazil to fill out its product line, apparently indicating that

---

<sup>14/</sup> Post Hearing Br. of Petitioner at 6.

<sup>15/</sup> Veeder Root Post Hearing Br. at 4.

<sup>16/</sup> Post Hearing Br. of Veeder Root, at 4.

<sup>17/</sup> Tr. at 116-18.

it does not produce such a model domestically.<sup>18/</sup> It argues that the basic nature of the parts of mechanical and electromechanical counters are the same except for the addition of a coil in the latter and of a ratchet or lever in the former. It also asserts that all three types are used in the same applications.<sup>19/</sup>

Respondent claims that electromechanical digital counters and electronic counters are like products, noting that both are increasingly capable of easy substitution at the design stage. It asserts that "many electronic counters are made on a size for size basis with electromechanical counters in order to make it easy for OEM [original equipment manufacturer] customers to use either for retrofit in a service situation."<sup>20/</sup> It claims that electronic and electromechanical digital counters are used in the same end use applications including copiers, general factory machines, textile machines, and coin counters.

In my view, neither party has advanced an appropriate like product definition, given the record before us. There is relatively little basis to distinguish, for like product purposes, what Petitioner has designated "miniature" electromechanical digital counters from larger counters. In terms of physical characteristics, the sole apparent difference between miniature and non-miniature electromechanical digital counters is their size. Evidence of record indicates that miniature electromechanical digital counters are made

---

<sup>18/</sup> Id.

<sup>19/</sup> Post Hearing Br. of Veeder-Root at 4.

<sup>20/</sup> Post Hearing BR. at 7.

in approximately the same range of configurations with respect to voltage, mounts, number of wheels, and wire lead lengths as other electromechanical counters.<sup>21/</sup> Size clearly affects product interchangeability and may in some circumstances be a distinguishing characteristic of considerable importance to our like product decision. But there is little evidence on the record in this investigation that size differences in the present circumstances should be a determinate consideration. For example, some of the electromechanical digital counters proposed by Petitioner to be included in the "miniature" like product category are virtually indistinguishable in size from electromechanical digital counters which Petitioner proposes not to include in that category.<sup>22/</sup>

The remaining like product criteria point to much the same conclusion on this issue. Record evidence indicates that miniature and larger electromechanical digital counters are used for many of the same end uses and have essentially identical functions and performance characteristics. Both are used mainly for counting functions in amusement, gaming, vending, and copying machines.<sup>23/</sup> Petitioner has failed to present evidence that indicates that miniature and somewhat larger electromechanical digital counters are not generally fungible in most uses. Indeed, no explanation has been offered either by the Petitioner or by the Commission's staff as to the significance of size. Plainly, the fact that counters are made

---

<sup>21/</sup> Report at A-3.

<sup>22/</sup> GC-N-071, dated April 6, 1990, at 8.

<sup>23/</sup> Report at A-3.

in a range of sizes provides a plausible basis for inference that size matters. But so long as a counter can perform the basic counting function adequately and can provide that information in a usable form, there appears to be little reason to infer a great advantage to one size instead of another. There is, in short, little doubt that Respondent is correct in its assertion that large and small counters perform the same counting function,<sup>24/</sup> and there is no evidence as to the value of size, large or small.

Similarly, essentially no evidence supports Petitioner's assertion that miniature and non-miniature electromechanical digital counters are significantly distinct<sup>25/</sup> in terms of the relevant channels of distribution, of customer or producer perceptions, or of manufacturing equipment, facilities, and production employees. Had this investigation been allowed to proceed to a final investigation, it is possible that Petitioner might have presented a fuller defense of its proposed boundaries for the like product category, but that explanation is lacking at the present time.

The sole criterion separating miniature electromechanical digital counters from larger electromechanical digital counters, other than size itself, appears to be the disparity of price between them. In most markets, differences in price, presumably suggest differences in value. But the present record does not reveal the source of that difference or its implications for the degree of competition between these differently priced products. It is the

---

<sup>24/</sup> Veeder-Root Post-Hearing Br. at 4.

<sup>25/</sup> Tr. at 79, 147-48.

degree of competition between products that largely determines the way they are affected by imports, the prices of which are reduced by dumping or subsidies. The closeness of products to such effects is, in broad terms, what the like product determination assesses.

Although cost alone cannot set prices in most market or reveal the closeness of inter-product competition, there is no evidence that the price differences between large and small counters relate to any factor other than the cost of the additional material required to build a larger device. Nor is this cost difference suggestive of more significant disparities. In its efforts to construct the cost of production of the Brazilian imports in its dumping margin calculations, Petitioner looks only to the additional weight of the materials involved in building the heavier import. Moreover, as the materials apparently differ only with respect to size, and as size for counters the Petitioner would treat as "like" the imports differs only very slightly from those Petitioner proposes to exclude from the like product, it is difficult to conclude that these cost differences and related price differences between small and large counters are any more substantial than the size differences between them.

Petitioner's argument that mechanical digital counters not be included in the like product definition has more apparent basis. Petitioner argues that mechanical counters do not operate directly from electrical current and require the movement of a lever to operate the counting wheels.<sup>26/</sup> Further, Petitioner argues that the

---

<sup>26/</sup> Petition at 6.

lever requires the use of additional space outside the mechanical counter and the modification of many potential host machines for the particular space and operating requirements of mechanical counters.<sup>27/</sup> Despite these differences in end use and operating characteristics, however, I believe that the differences between mechanical and electromechanical digital counters are not sufficiently significant to distinguish between them for like product purposes.

Though mechanical and electromechanical counters do operate on different physical principles, the resulting differences between the two types of counters are relatively slight. Respondent points out,<sup>28/</sup> and Petitioner concedes,<sup>29/</sup> that only a few parts differ between the two types of counters, and notably in that electromechanical counters contain an electrical coil while mechanical devices contain a ratchet or lever. The parties agree that the two types of counters may be substituted for each other in a wide range of end uses.<sup>30/</sup> The two types also are distributed through identical channels of distribution,<sup>31/</sup> their prices differ only slightly.<sup>32/</sup> Less important, but moving in the same direction,

---

<sup>27/</sup> Id.

<sup>28/</sup> Tr. at 4.

<sup>29/</sup> Tr. at 38-39.

<sup>30/</sup> Tr. at 10, 19-20, 35, 53, 79-80, 135, 150.

<sup>31/</sup> Report at A-15.

<sup>32/</sup> Tr. at 36.

the same labor force produces the two types of counters,33/ in the same facilities.34/

Electronic digital counters, by contrast, differ substantially in physical characteristics, in end uses, in price, in channels of distribution, and in production process. Electronic digital counters use solid-state circuitry to perform the counting function.35/ This technical difference, of itself, is not especially informative, but it necessitates a number of unique components -- time-base generator, signal gate, and decade-counting units -- which add significantly to the cost of production.36/ Some electronic counters have built-in batteries or programmable memories, further adding to the cost and to the complexity.37/

Some technical differences between electronic and other counters do not clearly implicate competitive differences significant to determining whether the products are like. For example, it is not plain what follows from electronic counters' use of light-emitting diodes or liquid crystal display, in contrast to the more conventional display devices employed by electromechanical

---

33/ Report at A-5-6.

34/ Id.

35/ Report at A-4.

36/ Report at A-4.

37/ Report at A-4. Where no existing circuit board is present in the host machine to which the counter is attached, the cost of adding an electronic counter may be from two to ten times more expensive than comparable mechanical or electromechanical counters. Petition at 6.

and mechanical counters.<sup>38/</sup> But other technical differences strongly suggest different uses and values. For instance, electronic counters are capable of significantly faster counting functions than are the other types of digital counters.<sup>39/</sup> This allows electronic counters to be employed for end uses different than those for which electromechanical counters are normally used. Although technical advances in the design of electromechanical counters appear to be fostering increasing substitutability between them, nevertheless they are not at this time completely substitutable for all end uses.<sup>40/</sup>

The apparent competitive differences between electronic and other counters parallels differences in the production of electronic digital counters and other counters. While most counters use a relatively labor-intensive production process, electronic counters are produced by a more capital-intensive manufacturing technology. Further, manufacturing electronic counters requires significantly more complex and substantially different tasks than is the case for the other counter types.<sup>41/</sup>

For these reasons, I conclude that the most appropriate like product definition at this time includes both miniature and non-miniature mechanical and electromechanical digital counters into a

---

<sup>38/</sup> Report at A-4.

<sup>39/</sup> Petition at 6-7.

<sup>40/</sup> Post-Hearing Br. of Petitioner at 2.

<sup>41/</sup> Report at A-5-6.

single category, and which excludes electronic counters from that category.

b. Domestic Industry

i. Related Party Issues

Petitioner ENM urges that Respondent Veeder-Root be excluded from the Commission's definition of the domestic industry under the "related parties" provision of Title VII<sup>42/</sup> because it imports miniature electromechanical digital counters from its own production facility in Brazil. That provision allows the Commission, in "appropriate circumstances,"<sup>43/</sup> to exclude a producer from the definition of the domestic industry when that producer is "related" to an exporter or importer, or when it is itself an importer of the subject imports.

In determining whether "appropriate circumstances" exist to exclude a company from the domestic industry, the Commission has generally considered five factors:

(1) the position of the related producer to the rest of the domestic industry;

(2) the reasons why the domestic producers have chosen to import the product under investigation -- to benefit from the unfair trade practice, or to enable them to continue production and compete in the domestic market;

(3) the percentage of domestic production attributable to the related producers;

(4) whether the domestic company's records are maintained

---

<sup>42/</sup> See 19 U.S.C. § 1677(4)(B).

<sup>43/</sup> Id.

separately from those of the foreign firm from which it imports; and

(5) whether the primary interests of the domestic firm lies in domestic production or in importation.<sup>44/</sup>

The Commission has paid particular attention to the second of these factors, focusing on whether the related party imported the product subject to investigation principally to benefit from the unfair trade practice or instead, simply in order to enable the domestic producer better to compete in the domestic market. This approach has been affirmed by the Court of International Trade.<sup>45/</sup>

There is little doubt that Veeder-Root qualifies as a "related party" within the meaning of the statute. Veeder-Root, a producer of electromechanical digital counters in the United States, wholly owns a Brazilian subsidiary which exports to the United States a low-cost miniature electromechanical digital counter.<sup>46/</sup> The question before us at this time, therefore, is whether appropriate circumstances exist to invoke the statutory provision to exclude Veeder-Root from the definition of the domestic industry. I believe that it is not appropriate to exclude Veeder-Root from the domestic industry definition.

Veeder-Root has explained to us that its purpose in exporting miniature electromechanical digital counters to the United States

---

<sup>44/</sup> Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Final), USITC Pub. 2163 at 13 n. 44, 17-18 (March 1989).

<sup>45/</sup> Empire Plow v. United States, 675 F. Supp. at 1353 .

<sup>46/</sup> Report at A-14.

was only to "fill out its product line."<sup>47/</sup> In fact, Veeder-Root makes a full line of electromechanical digital counters in the United States, and produces only the miniature electromechanical counters from its Brazilian operation.<sup>48/</sup> Furthermore, these imported miniature electromechanical counters constitute an extremely small portion of Veeder-Root's total sales. Veeder-Root has provided the Commission with information which indicates that its imports from Brazil constitute only some 15% of its total electromechanical counter sales, and that electromechanical counter sales, in turn, constitute only some 6.5% of that company's total sales of digital counters.<sup>49/</sup> It thus seems plain that Veeder-Root can receive only relatively minor incremental benefits from the alleged unfair trade practice, and that its principal interests in the United States are represented by its domestic production.

ii. Standing

The like product determination that I have made in this case raises squarely the question whether Petitioner ENM has standing to bring an antidumping petition with respect to electronic digital counters. In its petition, ENM identified four U.S. producers of electromechanical digital counters: itself, Durant Products, Veeder-Root, and Redington. Of these domestic firms, two -- the Petitioner

---

<sup>47/</sup> Tr. at 117.

<sup>48/</sup> Report at A-13.

<sup>49/</sup> Tr. at 81.

itself and [ \* \* \* ]<sup>50/</sup> -- support the petition. This suffices for standing purposes only if first, Petitioner's listing of competing domestic producers is exhaustive, and second, if the relevant industry is defined to include only electromechanical counter producers and not, as I have suggested is appropriate, mechanical digital counter producers.

Even if the Commission were to accept ENM's own like product definition, there is strong reason to believe that a majority of the domestic industry has not endorsed the petition. Although it is not known how many digital counter producers currently operate in the United States, various reference sources<sup>51/</sup> have given the Commission reason to believe there may be well over 70 such producers in the United States.<sup>52/</sup> Most have ignored Commission questionnaires and thus we have no way of knowing at this time which of these producers make electromechanical digital counters; naturally, this renders it extremely difficult to determine the actual number of such producers.<sup>53/</sup> Nevertheless, it seems likely that the two firms which have chosen to support this petition constitute far less than a majority of the domestic industry, defined in terms of number of producers.

Furthermore, in terms of the share of production, there is little reason to believe these two firms constitute a majority of

---

<sup>50/</sup> Report at A-13.

<sup>51/</sup> For example, the Thomas Register. See report at A-11.

<sup>52/</sup> Report at A-11.

<sup>53/</sup> Report at A-11.

the industry output. In its petition, ENM claimed to account for some 80% of U.S. production of electromechanical digital counters. Information received by the Commission in its independent investigation, however, indicates that ENM in fact holds approximately a \*\*\* share of domestic production, by value, or \*\*\* in terms of quantity.<sup>54/</sup> The quantity of [ \* \* \* \* ] production almost surely constitutes less than the remainder of a majority share of total domestic production.<sup>55/</sup> For these reasons, it is dubious whether a majority of the domestic industry supports the petition and thus whether the standing requirement is satisfied.

Under Title VII, antidumping and countervailing duty cases must be brought "on behalf of an industry".<sup>56/</sup> This requirement has been interpreted to mean that a Petition must be supported by producers representing a majority of the production of the domestic like product.<sup>57/</sup> As I have stated in other opinions, given that the authority for Title VII investigations is bifurcated between the Commission and the Department of Commerce, that Commerce has the authority to self-initiate investigations (suggesting authority to determine which investigations should be initiated, regardless of the stance taken by domestic producers), and that the Court of International Trade has held that Commerce has authority to

---

<sup>54/</sup> Report at A-12.

<sup>55/</sup> Report at A-13.

<sup>56/</sup> 19 U.S.C. §§ 1671a(b)(1) and 1673a(b)(1).

<sup>57/</sup> See *Gilmore Steel Corp. v. United States*, 585 F. Supp. 670 (Ct. Int'l Trade 1984).

determine Title VII standing questions, conflicts between the two agencies could arise if the Commission were also to render standing determinations.<sup>58/</sup> For this reason, I have concluded that it may be inappropriate for the Commission to pass on standing questions in cases where Commerce has already considered and resolved the issue.<sup>59/</sup>

In this preliminary investigation, Commerce has not yet had the opportunity to examine the question of Petitioner's standing. Consistent with the position that I have taken in other cases,<sup>60/</sup> I do not believe that it would be appropriate for us to rule on the standing issue here. But I strongly urge the Commerce Department to consider the standing issue in light of apparent uncertainty as to the size of ENM's domestic market share, whatever the like product definition, and the small number of domestic producers which have chosen to join with ENM in this petition.

## II. Reasonable Indication of Material Injury by Reason of Imports

As I have explained elsewhere, in assessing the effects of dumped or subsidized imports, it is necessary to compare the condition of the domestic industry to the condition that would have existed had there not been unfairly traded imports, and then to

---

<sup>58/</sup> See Certain Electrical Conductor Aluminum Redraw Rod from Venezuela, USITC Pub. 2103, Inv. Nos. 701-TA-287 and 731-TA-378 (Final) 20-22 (Aug. 1988) (Additional Views of Commissioner Cass) ("Aluminum Rod").

<sup>59/</sup> Id. at 22.

<sup>60/</sup> See Aluminum Rod, supra, at n. 52.

determine whether the change in the circumstances of the industry that resulted from dumping or subsidization constitutes material injury.<sup>61/</sup>

Title VII directs the Commission, in assessing the causation of injury by dumped or subsidized imports, to consider, among other factors:

- (i) the volume of imports of the merchandise which is the subject of the investigation;
- (ii) the effects of imports of that merchandise on prices in the United States for like products, and
- (iii) the impact of imports of such merchandise on domestic producers of like products . . . . "<sup>62/</sup>

Other provisions of the statute spell out these factors with greater particularity.

The statutory text does not identify all of the factors relevant to an assessment of whether unfairly traded imports have materially injured a domestic industry. Indeed, the statute explicitly contemplates that the Commission will consider relevant economic factors in addition to those identified in the statute.<sup>63/</sup> The factors that are listed in the statute and the order in which they are listed nevertheless provide us with important guidance respecting the essential elements of the inquiry to be performed. Three related questions are identified as critical to an assessment

---

<sup>61/</sup> See, e.g., 3.5" Microdisks and Media Therefor from Japan, USITC Pub. 2076, Inv. No. 731-TA-389 (Preliminary) (April 1988) (Views of Commissioner Cass).

<sup>62/</sup> See 19 U.S.C. § 1677(7)(B).

<sup>63/</sup> See 19 U.S.C. §1677(7)(C).

of the possible existence of material injury by reason of dumping or subsidization.

First, we are to examine the volumes of imports of the merchandise under investigation. The absolute volumes of imports and their magnitude relative to domestic sales of the competing like product are both relevant to this question. So, too, is the effect of dumping or subsidization on the prices of the imports, as the change in import volumes brought about by dumping or subsidization will be closely related to changes in the prices of the imports that occurred as a result of sales at less-than-fair-value or subsidized prices.

Second, we must attempt to determine how dumping or subsidization of the subject imports affected prices, and concomitantly, sales, of the domestic like product. Beyond examining evidence of the prices at which imports and domestic like products are sold, evidence bearing on three issues is central to an analysis of this question: the share of the domestic market held by the subject imports; the degree to which consumers see the imported and domestic like products as similar (the substitutability of the subject imports and the domestic like product); and the degree to which domestic consumers change their purchasing decisions for these products based on variations in the prices of those products.

Finally, we must evaluate the extent to which these changes in demand for the domestic like product caused by unfairly traded imports affected the financial and employment performance of the domestic industry, and determine whether these effects are material.

Such factors as return on investment and the level of employment and employment compensation in the domestic industry must be examined in considering that issue.<sup>64/</sup>

A. Volumes and Prices of LTFV Imports

During the period in which LTFV sales allegedly occurred, the imported electromechanical digital counters under investigation accounted for a small, but growing and not trivial, volume of such counters sold in the United States. In 1989, [ \* \* \* \* ] electromechanical and mechanical digital counters were imported from Brazil. Shipments of Brazilian imports in the United States accounted for \* \* of U.S. consumption in 1989.<sup>65/</sup> By value, shipments of Brazilian electromechanical digital counters accounted for only \* \* of U.S. consumption during 1989, reflecting the low-cost character of Brazilian imports. U.S. producers accounted for nearly all of the remaining market, or some 83.1%, with other importers going from \* \* by value a year earlier to some \* \* in 1989. Seen in volume terms, the volume borders on the lower bound of what might be thought plausibly to be source of injury, regardless of the other evidence of record. But two things caution against such a conclusion. First, the significant disparity between unit volume and value-measured share suggests that the like product defined here includes items of quite different value, which might make the like

---

<sup>64/</sup> In making each of these inquiries under the statute, we are to consider the particular dynamics of the industries and markets at issue. See new Section 771(7)(C)(iii) of the statute (to be codified at 19 U.S.C. § 1677(C)(iii)). See also S. Rep. No. 71, 100th Cong., 1st Sess. 117 (1987).

<sup>65/</sup> Report at A-47.

product determination questionable or might call for more discriminating analysis of effects on the industry producing the like product. In this regard, I note that seen as a share of the electromechanical digital counter market alone, the imports in 1989 accounted for \* \* by unit volume and \* \* by value of U.S. consumption.<sup>66/</sup> Second, the law suggests antipathy to resolution of these cases without scrutiny of the effects suggested by all relevant factors viewed in combination.<sup>67/</sup>

Although import volumes and sales of the subject imports increased during the period in which they allegedly were sold at LTFV, that does not indicate that allegedly LTFV pricing increased import volumes. Drawing such conclusions from raw data on trends is not advisable; indeed, such data do not contain information that is readily usable in assessing injury from LTFV imports. A better means of evaluating the effect of LTFV sales on import volumes and sales would begin by examining the evidence respecting the pricing

---

<sup>66/</sup> Report at A-46.

<sup>67/</sup> The Congress has recently specifically directed that

"the Commission, in each case,

(i) shall consider --

(I) the volume of imports of the merchandise which is the subject of the investigation,

(II) the effect of imports of that merchandise on prices in the United States for like products, and

(III) the impact of imports of such merchandise on domestic producers of like products . . . . "

19 U.S.C. § 1677(7)(B) (emphasis added). The emphasized phrase "in each case" was added by the 1988 Omnibus Trade and Competitiveness Act, Pub. L. 100-418 (Aug. 23, 1988).

of the subject imports. The volumes of the LTFV imports are closely related to the prices at which those imports are sold.<sup>68/</sup>

The Petitioner in this investigation has alleged LTFV margins ranging between 47.99% and 64.30%,<sup>69/</sup> dumping margins allegedly calculated by the comparison of constructed estimates of production costs in Brazil with actual price observations of Brazilian imports in the United States.<sup>70/</sup> Where, as here, the alleged dumping margin is based on constructed values, dumping must be assumed to cause a decrease in the price of the dumped product by the full amount of the dumping margin.<sup>71/</sup> Thus, in the absence of independent estimates of the actual dumping margin by the Department of Commerce, the record evidence suggests that dumping of the magnitude alleged by Petitioner had a significant effect on the price of Brazilian imports. Therefore, we must assume that the price of Brazilian imports in the United States is variously between 48% and

---

<sup>68/</sup> Digital Readout Systems and Subassemblies Thereof from Japan, USITC Pub 2150, Inv. No. 731-TA-390 (Final), at 25-26 (Jan. 1989) (Concurring and Dissenting Views of Commissioner Cass).

<sup>69/</sup> Petition at 29.

<sup>70/</sup> Petition at 14-29. As I have suggested elsewhere, Petitioner's alleged LTFV margins are in general the best available evidence of the true dumping margin until the Department of Commerce has made a determination as to the true margin. 12-Volt Motorcycle Batteries from the Republic of Korea, Inv. No. 731-TA-434 (Preliminary), USITC Pub. 2203 (July 1989) (Additional Views of Vice Chairman Cass) at 40-43. The Commission, however, need not accept the alleged margins if they are inherently implausible or are contradicted by clear record evidence.

<sup>71/</sup> See, e.g., Certain All-Terrain Vehicles from Japan, USITC Pub. 2163, Inv. No. 731-TA-388 (Final) 58-60 (March 1989) (Additional Views of Commissioner Cass); Memorandum from Office of Economics, U.S. International Trade Commission, "Assessing the Effects on the Domestic Industry of Price Dumping," Parts I and II (May 1988).

64% lower than it would have been absent the alleged LTFV sales. As explained below, this price decrease provides, along with other record information, basis for inference that the LTFV pricing by Respondent led to significant increases in the volumes of electromechanical digital counters from Brazil.

B. Effects on Domestic Prices and Sales

In determining how dumping of the subject imports affected prices, and concomitantly sales, of the domestic like product, it is necessary to take into account certain evidence in addition to the record evidence relating to import volumes. The record evidence respecting three issues is critical to such an analysis: the share of the domestic market held by the subject imports; the degree to which domestic consumers change their purchasing decisions for these products based on variations in the prices of those products; and the substitutability of the subject imports and the domestic like product. In this investigation, the record evidence does not provide any reasonable indication of price underselling.<sup>72/</sup>

---

<sup>72/</sup> In asking us to look for the existence of significant price underselling (see 19 U.S.C. § 1677(7)(C)(ii)), Congress did not intend to equate that term with simple differences in observed prices. First, that concept would have been quite easy to articulate had that been Congress' intent. Second, that would not be a likely instruction from Congress, given the manifest irrelevance of such gross price differences to the effects of dumped imports on the U.S. industry making the competing domestic like product. As the Commission has recognized, the occurrence of price differences between imports and domestic products cannot provide a basis for inference of effects of dumping or of dumped imports on domestic products' prices without analysis of various product features and sales terms that may differ across products and sales. See, e.g., Certain Granite from Italy and Spain, USITC Pub. 2110, Inv. Nos. 701-TA-289 and 731-TA-381 (Final) (Aug. 1988). When adjustments for such differences are made, it is extraordinary to find price differences of more than a transitory duration. The common effect of

With respect to the first of these issues, two points must be made. First, at this time our evidence respecting the actual share of the relevant counter market held by the relevant imports is ambiguous and unreliable. Information available to us at this time indicates that Brazilian imports hold approximately a \* \* share of the domestic market for electromechanical digital counters.73/ However, the extent of U.S. shipments of digital counters represented by data submitted in response to Commission questionnaires is not known, because there is no public source of data on the size of the domestic digital counter market.74/ As a result, data on the U.S. market penetration by imports of electromechanical digital counters are based on information submitted in response to Commission questionnaires, the response to which at this point has not been substantial.75/ It is appropriate, in the absence of clear and convincing information to the contrary in this preliminary investigation, to construe available information in favor of Petitioner, but we should be cautious not to overstate the record evidence. At this point, we have no way to tell how much less than the \* \* of the domestic market for electromechanical digital counters now shown in fact is accounted for by Brazilian imports allegedly sold at LTFV. This share of the market clearly is

---

price underselling, in most markets, will be depression of the like product's price. Reliable information on that effect will be more readily obtained.

73/ Report at A-45.

74/ Report at A-45.

75/ Report at A-12.

adequate to cause, under circumstances reasonably inferred from the record before us, material injury to the domestic industry.

The second point that must be made with respect to the LTFV imports' market share concerns the definition of the appropriate market. If, as Petitioner has suggested, the appropriate like product definition includes only miniature electromechanical digital counters, then the market share information presented in our Report<sup>76/</sup> is inapt and insufficiently favorable to Petitioner. Import market share, as presented, concerns the entire electromechanical digital counter market, and not the subsegment of that market which comprised of low-cost, miniature counters.

The information respecting the extent to which domestic demand for electromechanical digital counters is responsive to prices of such products likewise weighs unambiguously in favor of an inference that the alleged dumping significantly and adversely affected prices and sales of the domestic like product. Evidence concerning this issue is significant because, when consumer demand for the product group in which subject imports are included is highly responsive to changes in price, the effects of dumping on prices and sales of the domestic like product are attenuated, for in that case the lower prices accompanying dumping of the subject imports will stimulate significantly increased domestic demand for the lower-priced product. Conversely, much greater effects will be felt by U.S. producers when consumers perceive no difference between the imported and domestic product other than price but their overall purchases of

---

<sup>76/</sup> Report at A-46.

these products are relatively unresponsive to price changes. In the latter case, consumers will simply switch their purchases from U.S.-made to lower-priced imported products, with resulting adverse effects on both prices and sales of the domestic product.

In this investigation, the record evidence concerning the price responsiveness of domestic demand for electromechanical and mechanical digital counters suggests that it is quite unlikely that the lower prices accompanying dumping produced significantly increased demand for these counters. Counters are used as component parts of much larger and far more costly machines, such as gaming or voting machines or manufacturing equipment. Digital counters constitute a small fraction of the total cost of producing the overall end product. Demand for electromechanical and mechanical digital counters is therefore likely to be relatively unresponsive to changes in the price of the counter itself.

The remaining factual question relevant to the impact of allegedly LTFV Brazilian imports on the prices of the domestic like product concerns the extent to which domestically produced electromechanical or mechanical digital counters may be substituted for imported Brazilian-made counters. There is at this time no significant evidence on the record, in the briefs of either party (other than bare assertions) or in the Commission's own report, that allows an inference on this issue to be drawn with any confidence. The information discussed above in connection with the like product determination generally suggests a significant degree of substitutability. In the absence of other evidence that Brazilian

imports are less substitutable for the competing domestic product, the Commission must, in this preliminary investigation, assume that the imported product constitutes a reasonably good substitute, in the estimation of U.S. end users of digital counters.

C. Investment and Employment

In this investigation, as is typically the case, it is quite difficult to draw meaningful conclusions concerning the effect of the allegedly LTFV imports on the domestic industry based only on an examination of the financial and employment data compiled by the Commission. Factors unrelated to the alleged unfair trade practice surely have influenced the performance of the industry during the period covered by our investigation.

The difficulty of resting factual inferences respecting the impact of the alleged LTFV imports on the domestic industry's financial and employment performance is exacerbated by the apparent small response to the Commission's questionnaire by the members of the domestic industry.<sup>77/</sup> Extraordinary disagreement between Petitioner and Respondent over the current financial and employment situation in the domestic electromechanical digital counter industry in large part appears to rest on the question of the actual extent of that industry. Petitioner contends that it alone constitutes some

---

<sup>77/</sup> The Commission sent 128 questionnaires to domestic firms which it had reason to believe might constitute members of the domestic industry. Some 62 of these firms did not respond to the Commission's questionnaire. Of those that did respond, only ten provided information concerning digital counter production, but there apparently exists no evidence whether those which failed to provide this information nevertheless engage in at least some production; indeed, at least one such case is known to exist. Report at A-12, n. 35.



\* \* \* \* \* ].<sup>82/</sup> In part, these higher expenses appear to be due to [ \* \* \* \* \* ].<sup>83/</sup>

The number of production and related workers employed in the production of electromechanical counters, for the four reporting domestic producers, was 191 in 1989. In 1988, the comparable figure was 193 such workers.<sup>84/</sup> The number of such workers employed in the production of all digital counters was some [ \* \* ] in 1989. The comparable figure for 1988 was some [ \* \* ] workers.<sup>85/</sup>

Again, it must be emphasized that, standing alone, the data on the domestic industry's overall financial and employment performance that we have been able to collect in this preliminary investigation do not provide a basis for any categorical statements respecting the performance of the domestic industry. They provide even less basis for any meaningful conclusions respecting the issue that we are charged with considering -- that is, whether sales at less than fair value of the subject imports caused material injury to that industry. Accordingly, in this investigation, my conclusion that there is a reasonable indication that sales alleged to be at less than fair value have materially injured the domestic industry is predicated primarily on the information before us that suggests a reasonable possibility that less than fair value sales of these

---

<sup>82/</sup> Report at A-30.

<sup>83/</sup> Report at A-30.

<sup>84/</sup> Report at A-27.

<sup>85/</sup> Id.

products significantly affected prices and sales of the domestic like product.

### III. Threat

Because I have determined that a reasonable indication exists that an industry in the United States has been materially injured by reason of less than fair value imports of electromechanical digital counters from Brazil, I need not reach, and therefore do not address, the question of whether an industry in the United States is threatened with material injury by reason of those same imports.

### CONCLUSION

For the foregoing reasons, I determine that a reasonable indication exists that an industry in the United States has been materially injured by reason of imports of electromechanical digital counters from Brazil.

## INFORMATION OBTAINED IN THE INVESTIGATION

## Introduction

On February 27, 1990, a petition was filed with the U.S. International Trade Commission ("Commission") and the U.S. Department of Commerce ("Commerce") by the ENM Company ("ENM"), Chicago, IL, alleging that an industry in the United States is materially injured and threatened with further material injury by reason of imports from Brazil of electromechanical digital counters<sup>1</sup> that are alleged to be sold in the United States at less than fair value (LTFV). Accordingly, effective February 27, 1990, the Commission instituted antidumping investigation No. 731-TA-453 (Preliminary) under section 733 of the Tariff Act of 1930, to determine whether there is a reasonable indication that 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 imports of such merchandise into the United States.

The statute directs the Commission to make its preliminary determination within 45 days after receipt of the petition or, in this investigation, by April 13, 1990. Notice of the institution of this investigation 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 of March 7, 1990 (55 F.R. 8201). Commerce published its notice of initiation in the Federal Register of March 26, 1990 (55 F.R. 11034).<sup>2</sup> The Commission held a public conference in Washington, DC, on March 20, 1990, at which time all interested parties were allowed to present information and data for consideration by the Commission.<sup>3</sup> The Commission voted on this investigation on April 10, 1990. The Commission has not conducted previous or related investigations concerning electromechanical digital counters.

## The Product

Description and uses

Electromechanical digital counters are part of a larger family of devices known as digital counters, which also includes mechanical and electronic digital counters. Digital counters are instruments capable of detecting, totalizing, and indicating a sequence of events. In general, they may be

---

<sup>1</sup> For purposes of this investigation, "electromechanical digital counters" are defined as devices or instruments for summing, either directly or through inference, and indicating a total number of units of any kind (items, events, pulses, length, etc.), whether or not resettable, wherein the units to be counted are detected by electrical means, and the count is displayed by rotating numbers on wheels.

<sup>2</sup> Copies of the Commission's and Commerce's Federal Register notices are presented in app. A.

<sup>3</sup> A list of the participants in the conference is presented in app. B.

classified as totalizing or predetermining counters.<sup>4</sup> Over the years, digital counter manufacturers have developed a broad range of electromechanical, mechanical, and electronic digital counters to meet the diverse needs of end users.<sup>5</sup> Many of the counters are "usage oriented."

Most digital counters are produced to operate at speeds of up to 3,000 counts per minute, but certain electronic digital counters operate at higher speeds. Digital counters with four, five, or six figures are the most widely produced instruments, but other combinations are also available.<sup>6</sup> Also, digital counters with readouts of various sizes are produced. Digital counters are manufactured with different mount configurations, including surface or basemount, panelmount, behind-the-panel mount, and other mounts. Depending on the end use, electromechanical and mechanical digital counters are also available with various wire lead lengths. The required length of the wire leads is generally determined by the type of mount and the end use of the counter. The housings of digital counters are made either of metal, such as zinc or steel, or of plastic. The frames are generally made of metal. Parts and components that make up the remainder of the counter are made of plastic or metal.

Digital counters are widely used in industry and are integrated in a multitude of end products. They are used, for example, to count the number of end products produced by a machine; to count the rotations of a wheel or a moving part of a machine; or to count the number of times a product has been exposed to certain test procedures. Digital counters may be integrated in coin-operated amusement machines, gaming machines and vending machines, copying machines, speedometer assemblies, voting machines, water, gas and

---

<sup>4</sup> Totalizing counters may be further subdivided into (1) reset totalizing counters, (2) nonreset totalizing counters; and (3) bidirectional (add and subtract) totalizing counters. Reset totalizing counters can be stopped at any time, and then reset to begin the counting process again. A nonreset totalizing counter will count a sequence of events until it has reached the limit of its counting capability, and then will automatically restart the counting process unless the counter is turned off. Finally, a bidirectional totalizing counter can both add and subtract, and provide the total net count.

By contrast, a predetermining counter will count until the specified count has been reached. At that time the operator may be notified by a signal, such as flashing light or sound, and the operator may then reactivate the counting process. Certain predetermining counters have the capability to restart automatically the counting process.

<sup>5</sup> It should be noted that many end users of digital counters produce their own digital counters. For example, two major automobile manufacturers produce their own odometers (which are generally mechanical digital counters). In addition, a number of manufacturers of water, gas, and electric meters make their own counters, as do some copier manufacturers.

<sup>6</sup> Figures may be referred to as "wheels" when discussing electromechanical or mechanical digital counters. For electromechanical and mechanical digital counters, the number of wheels, known as figures in the trade, determines the number of digits in the readout.

electric meters, metal-working machines, and textile machines.<sup>7</sup> All digital counters have digital readouts.

Electromechanical digital counters operate by electrical impulse, and require electrical power to operate.<sup>8</sup> When in operation, an electrical impulse generated by an electric coil causes a magnetic pull on a metal part. As the metal part moves, it causes a pawl to drive the first wheel one digit. Every time the first wheel moves, the transfer pinion advances one-tenth of a revolution. When the first wheel advances to the tenth position, the second wheel begins to move one digit at a time. This process is repeated on all available wheels in the counter. An electromechanical digital counter consists essentially of a housing and frame enclosing the various components, such as an electric coil, wheels with numbers ranging from zero through 9 for readout purposes, gears, pinions and a shaft. The housings are made of plastic or metal.

Miniature electromechanical digital counters are small resettable or nonresettable totalizing electromechanical digital counters.<sup>9</sup> Nonresettable varieties account for the bulk of the imported and U.S.-made miniature electromechanical digital counters. These digital counters operate at a speed of 600 counts per minute, or faster, and are available with various voltage configurations, mounts, number of wheels, and wire-lead lengths. Electromechanical digital counters with voltage configurations of 115 V AC, 24 V DC, and 12 V DC account for most of the miniature electromechanical digital counters sold in the United States. Although miniature electromechanical digital counters with various figures are available, the most widely produced instruments are those counters with five, six, or seven figures. The size of the numbers imprinted on the wheels of the most popular U.S.- and foreign-produced miniature electromechanical digital counters is relatively small. The housings for these counters are generally made of plastic, the frames of metal, and the remainder of the components and parts of either plastic or metal. Although miniature electromechanical digital counters are suitable for many end uses, most, by far, are used in amusement, gaming, vending, and copying machines.<sup>10</sup>

---

<sup>7</sup> Amusement machines include, for example, video games and arcade games. Gaming machines include, in part, slot machines and payoff game machines. Vending machines include, e.g., washing machines, clothes dryers, and food and cigarette-vending machines.

<sup>8</sup> For an electrical coil to function it needs electrical power. However, because applications for which digital counters are used require different voltage configurations, such as 115 V AC, 115 V DC, 48 V AC, 12 V DC, etc., a digital counter must contain a coil especially designed to accommodate a specific voltage.

<sup>9</sup> Miniature counters are also referred to as "low-cost electromechanical digital counters." There is no accepted definition by the parties of the term "miniature counters."

<sup>10</sup> The States of New Jersey and Nevada, the only States that permit slot machines, require that they be equipped with electromechanical digital counters, even though most of the slot machines are computer controlled and have electronic counting capabilities.

### Substitute products

Respondents in this investigation argued that mechanical and electronic digital counters are substitutable for electromechanical digital counters. Mechanical digital counters require mechanical motion in order to operate. There are three types of mechanical digital counters: (1) stroke counters, (2) revolution counters, and (3) rotary counters. A stroke counter advances a wheel by one digit each time a lever is pulled down. A revolution counter has a drive shaft; for each revolution of the drive shaft, the wheel will advance one digit, amounting to one count per revolution. A rotary counter also has a drive shaft; for each revolution of the drive shaft, the wheel will advance 10 digits, amounting to 10 counts per revolution. A mechanical digital counter consists essentially of a housing and frame enclosing various components, such as the wheels, gears, pinions and a drive shaft. Mechanical digital counters are suitable for a multitude of applications, and are widely used in machines such as printing presses, packaging equipment, conveyors, machine tools, and agricultural and textile machines. These counters are also integrated in speedometer assemblies (as odometers), water meters, and gaming and vending machines.<sup>11</sup>

For their part, electronic digital counters utilize solid-state circuitry to perform the counting functions. Such digital counters generally consist of a time-base generator, a signal gate, and decade-counting units.<sup>12</sup> The count is displayed by light-emitting diode (LED) digits, or liquid crystal display (LCD) digits. These counters operate either by electric current or by battery. To assure that counts are not lost during electric power failures, some of the electrically-powered electronic digital counters are supplied with a built-in battery, or contain an electronic erasable and programmable read-only memory (EEPROM).<sup>13</sup>

In theory, all three types of digital counters are interchangeable. It is generally agreed, however, that in many cases certain varieties of digital counters are better suited for certain applications than others. Therefore, when selecting a digital counter the purchaser must take into consideration many factors, with the price and end use being of primary importance. For a digital counter to be used in a factory, the purchaser must take into consideration such factors as the type of machine to which the counter will be connected, how the counter will be connected to the machine, which type of counter can be connected to the machine without having to make major modifications in that machine, the location of the counter, the required counting speed of the counter, and the level of noise and pollution in the factory. Similarly, many of the same factors must be taken into consideration when selecting digital counters that will be integrated into such products as gaming and amusement machines, copiers, pumps, and meters.

---

<sup>11</sup> Respondent's postconference brief, app. III.

<sup>12</sup> Electronic digital counters are 8 to 10 times more costly than electromechanical and mechanical digital counters. This is primarily because the electronic components are relatively expensive, and the manufacturers generally purchase most of the electronic parts and components from outside sources.

<sup>13</sup> An EEPROM can store count data for many years if power is lost.

### Manufacturing processes

The production of electromechanical and mechanical digital counters is labor intensive, whereas the production of electronic digital counters is capital intensive.<sup>14</sup> The housings, frames, and other components and parts for the digital counters are either produced internally or purchased from outside sources. The level of in-house and outside procurement of components and parts differs greatly among producers.<sup>15</sup> Therefore, the value added by the manufacturers of digital counters varies from one producer to another.

Integrated manufacturers that produce some or most of the parts and components for their manufacture of digital counters require equipment or machines such as stamping machines, molding machines, grinding and cutting machines, and heat-treating equipment.<sup>16</sup> The production processes of certain parts and components are as follows: (1) production of electric coils for electromechanical digital counters is done by a machine, and essentially entails winding of copper wire, bound with various layers of tape, around a core;<sup>17</sup> (2) die-cast housings, or housings stamped out from sheets of steel, undergo secondary processes that include trimming, dipping the housing into a protective coating, and painting; (3) metal frames are stamped out from sheets of metal, and then the edges are trimmed; (4) metal shafts are cut into the desired length from steel bars, then trimmed and heat treated; (5) the various plastic parts and components are generally produced by injection molding, then trimmed and occasionally annealed; and (6) imprinting of the numbers on the wheels is done by placing the wheels under a stamping machine which imprints numbers from zero to 9 in sequence.

The assembly process of mechanical digital counters does not differ greatly from that for electromechanical digital counters, with the exception that some of the components and parts are different. The first step in the assembly process of the digital counters is the manufacture of subassemblies. This is generally done apart from the final assembly. The final assembly of the digital counters is usually performed by a team, or teams, consisting of four to five workers, or more, with each worker performing a specified task or tasks. It entails assembling and securing all required parts, components, and subassemblies in the frame, and securing the assembled frame in the housing. Accuracy verification tests and inspections are conducted during the assembly and after the counter has been assembled.

The first task in the assembly process for electronic digital counters is the subassembly manufacture, which generally includes mounting and interconnecting discrete electronic components onto a printed circuit board. Assembling the finished subassemblies is usually done apart from the final

---

<sup>14</sup> A representative of U.S. producer and importer Veeder-Root stated that it has \* \* \*. Field visit with Veeder-Root, Mar. 9, 1990.

<sup>15</sup> In its Brazilian operations, Veeder-Root \* \* \*. In the United States, Veeder-Root \* \* \*. ENM \* \* \*. A representative of \* \* \*, another domestic producer of electromechanical digital counters, \* \* \*.

<sup>16</sup> To assure full utilization of the machines and equipment, as many as three shifts per day may be instituted when there is a high demand for parts and components.

<sup>17</sup> A representative of Veeder-Root stated that the cost of the coil accounts for about \* \* \* percent of the cost of the total counter.

assembly. The final assembly of the electronic digital counters is performed by a team of workers, with each worker doing a specified task. The final assembly consists of assembling, interconnecting, and securing all parts, components, and subassemblies in the frame, and then securing the assembled frame in the housing. Generally the required soldering in the manufacture of the subassemblies is done automatically, and soldering in the final assembly is done manually. Tests and inspections are performed during various assembly stages and after final assembly.

#### U.S. tariff treatment

Electromechanical digital counters are provided for in subheading 9029.10.80 of the Harmonized Tariff Schedule of the United States (HTS) under the heading that includes odometers, pedometers, and the like.<sup>18</sup> Parts of digital counters, not subject to this investigation, are provided for in HTS subheading 9029.90.80. The most-favored-nation (MFN) or column 1-general rate of duty for HTS subheading 9029.10.80, applicable to imports from Brazil, is free.

#### Nature and Extent of the Alleged Sales at LTFV

In order to calculate the estimated dumping margin for electromechanical digital counters from Brazil, the petitioner compared the U.S. price of such counters with their foreign market value. The specific model chosen for the margin calculation was Veeder-Root part No. 779096, which the petitioner considered most similar to its model E6B62GN.<sup>19</sup> The petitioner based U.S. price primarily on price quotes for part No. 779096 obtained from Veeder-Root in October 1989.<sup>20</sup> Alternatively, U.S. price was based on the average export price of imports under HTS item no. 9029.10.80 for the period January-July 1989, as calculated from official U.S. import statistics.<sup>21</sup>

In turn, because the petitioner was unable to obtain information on Brazilian home market prices or prices to third countries, it based foreign market value on constructed value. The constructed value of Veeder-Root part No. 779096 was derived by adjusting petitioner's costs for ENM model E6B62GN for cost differences in Brazil, using publicly available information.

---

<sup>18</sup> The HTS replaced the Tariff Schedules of the United States (TSUS) effective January 1, 1989. Electromechanical digital counters were previously reported under item 711.98 of the TSUS.

<sup>19</sup> Petitioner asserted that the parts contained in its model and those in the Brazilian model were identical. Respondent estimates that imports of part No. 779096 comprised \* \* \* percent of its reported imports of electromechanical digital counters from Brazil in 1989.

<sup>20</sup> See petition, Exhibit 15.

<sup>21</sup> In its initiation notice, Commerce noted that it had rejected ENM's margin estimates using average export prices based on official U.S. import statistics. These statistics include products not subject to investigation. In addition, it rejected margin estimates based on price quotes from U.S. customers, because that information was more than 2 years old. See 55 F.R. 11034.

Constructed value was calculated as the sum of material costs, labor and overhead costs, general expenses, packing costs, and profit.<sup>22</sup>

In its petition, by comparing constructed value to U.S. price, ENM calculated margins of 47.99 to 58.63 percent when U.S. price was based on Veeder-Root price quotes, and 64.30 percent when U.S. price was based on official U.S. import statistics.<sup>23</sup>

### The U.S. Market

#### Apparent U.S. consumption

This report presents data concerning apparent U.S. consumption of electromechanical digital counters, and of other varieties of digital counters, as compiled from responses to Commission questionnaires. Neither the petitioner nor the respondent could identify any reliable public source of data regarding U.S. consumption of digital counters in general, or of electromechanical digital counters in particular. As a result, data in this report consist of reported U.S. shipments of mechanical, electromechanical, and electronic digital counters, combined with reported shipments of imports of those counters.

In terms of quantity, apparent U.S. consumption of electromechanical digital counters increased steadily from 1987 to 1989, registering a total increase over the period of 57 percent (table 1). When viewed in terms of value, this indicator increased as well, but at a much more moderate rate, exhibiting a 12-percent rise from 1987 to 1989. Value-based data show imports increasing their share of the electromechanical digital counter market during the period, while quantity-based data indicate first an increase in import penetration in 1988, and then a \* \* \*.

Apparent U.S. consumption of mechanical and electromechanical digital counters exhibited a slight decline in quantity terms during the period of investigation, of approximately 2 percent overall (table 2). In value terms, the pattern was different; consumption first rose in 1988, but then fell back in 1989 to below its 1987 level. The overall decline in the market between 1987 and 1989 amounted to 4 percent. Imports increased their share of the market throughout the period of investigation, in terms of both quantity and value.

---

<sup>22</sup> Material costs consist principally of the cost of the coil, case, wheels, pinion gears, number wheel shaft, armature, pawl, core, and the frame.

<sup>23</sup> As stated above, Commerce rejected the latter set of estimates. In a subsequent submission to Commerce, ENM revised its margin estimates upward, using approved methodologies based on the October 1989 Veeder-Root price quotes, resulting in estimated dumping margins of 92.27 to 141.71 percent.

ENM also noted that in using 1988 data for labor costs, for instance, it did not take into account the impact of Brazilian hyperinflation on such costs. In addition, it assumed that the ratio of overhead to labor costs in Brazil was equal to that in the United States, despite indications to the contrary. Thus, ENM claimed that its margin estimates were likely to be understated.

**Table 1**  
**Electromechanical digital counters: U.S. shipments, shipments of imports, and**  
**apparent U.S. consumption, 1987-89**

<b>Item</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>
	<u>Quantity (units)</u>		
U.S. shipments.....	866,655	***	***
Shipments of imports.....	363,651	***	***
Apparent consumption.....	1,230,306	1,544,368	1,927,127
	<u>As a share of the quantity of apparent U.S. consumption (percent)</u>		
U.S. shipments.....	70.4	***	***
Shipments of imports.....	29.6	***	***
Apparent consumption.....	100.0	100.0	100.0
	<u>Value (1,000 dollars)</u>		
U.S. shipments.....	12,189	12,908	12,706
Shipments of imports.....	2,245	3,066	3,484
Apparent consumption.....	14,434	15,974	16,190
	<u>As a share of the value of apparent U.S. consumption (percent)</u>		
U.S. shipments.....	84.4	80.8	78.5
Shipments of imports.....	15.6	19.2	21.5
Apparent consumption.....	100.0	100.0	100.0

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 2

Electromechanical and mechanical digital counters: U.S. shipments, shipments of imports, and apparent U.S. consumption, 1987-89

Item	1987	1988	1989
	<u>Quantity (units)</u>		
U.S. shipments.....	***	***	***
Shipments of imports.....	***	***	***
Apparent consumption.....	6,917,618	7,040,492	6,809,986
	<u>As a share of the quantity of apparent U.S. consumption (percent)</u>		
U.S. shipments.....	***	***	***
Shipments of imports.....	***	***	***
Apparent consumption.....	100.0	100.0	100.0
	<u>Value (1,000 dollars)</u>		
U.S. shipments.....	***	***	52,493
Shipments of imports.....	***	***	10,684
Apparent consumption.....	65,836	67,389	63,177
	<u>As a share of the value of apparent U.S. consumption (percent)</u>		
U.S. shipments.....	***	***	83.1
Shipments of imports.....	***	***	16.9
Apparent consumption.....	100.0	100.0	100.0

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

With regard to all types of digital counters, apparent U.S. consumption in quantity terms also demonstrated an overall increase, of 3 percent, over the 3-year period, although it fell back slightly in 1989 from its 1988 level (table 3). During the period, the share of imports in apparent consumption grew in terms of quantity, but \* \* \* in terms of value. These different trends resulted from a sharper rise in the value of U.S. producers' shipments of digital counters than that of importers' shipments.

Table 3

Digital counters: U.S. shipments, U.S. shipments of imports, and apparent U.S. consumption, 1987-89

Item	1987	1988	1989
	Quantity (units)		
U.S. shipments.....	***	***	***
Shipments of imports.....	***	***	***
Apparent consumption.....	7,836,335	8,100,838	8,060,826
	As a share of the quantity of apparent U.S. consumption (percent)		
U.S. shipments.....	***	***	***
Shipments of imports.....	***	***	***
Apparent consumption.....	100.0	100.0	100.0
	Value (1,000 dollars)		
U.S. shipments.....	91,869	***	121,726
Shipments of imports.....	13,894	***	18,211
Apparent consumption.....	105,763	117,130	139,937
	As a share of the value of apparent U.S. consumption (percent)		
U.S. shipments.....	86.9	***	87.0
Shipments of imports.....	13.1	***	13.0
Apparent consumption.....	100.0	100.0	100.0

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

With regard to production and shipments of electromechanical digital counters, the Commission received usable data from all four known producers of such merchandise: ENM Company, \* \* \*, Veeder-Root Company ("Veeder-Root"), Simsbury, CT, and \* \* \*.<sup>24</sup> As a result, consumption figures, at least for electromechanical digital counters, are substantially complete.<sup>25</sup>

Parties to the proceeding disagreed as to the long-term consumption trend in the digital counter market. ENM Company, the petitioner, claimed that the demand for electromechanical digital counters is increasing, most notably in

<sup>24</sup> Transcript, p. 105.

<sup>25</sup> Consumption figures for digital counters, however, may be somewhat understated because many large firms, such as \* \* \*, reportedly manufacture large quantities of digital counters for internal consumption; questionnaires were not sent to these firms. Field visit with Veeder-Root, Mar. 9, 1990. In addition, at least one major producer of electronic digital counters did not respond to the Commission's questionnaire.

the casino industry.<sup>26</sup> Although the petitioner acknowledged that the variety of applications for electromechanical digital counters has narrowed over time, those applications, in its view, are still strong in terms of demand.<sup>27</sup> The petitioner characterized its other main customer group, the vending machine industry, as fairly static. By contrast, witnesses for Veeder-Root, the respondent and importer of electromechanical digital counters from Brazil, described the overall counter market as flat and, in value terms, lagging behind inflation in recent years.<sup>28</sup> In terms of total units sold, respondent claimed that total sales of electromechanical digital counters, at least, would likely decline in the future because of a perceived move by many end users to more frequent use of electronic digital counters.<sup>29</sup> An official from Kessler-Ellis Products Company ("Kessler-Ellis"), Atlantic Highlands, NJ, \* \* \*, also pointed out that the video game market, a large user of electromechanical digital counters in the 1980s, has plummeted in the last few years.<sup>30</sup>

The world market for digital counters is primarily dominated by a few large firms, Veeder-Root among them, who tend to produce primarily for their own home market.<sup>31</sup> The industry began in Switzerland and the Federal Republic of Germany ("Germany") as an adjunct to the well-established watchmaking industry in those countries.<sup>32</sup> The industry in Germany, dominated by companies such as J. Hengstler GmbH & Co. ("Hengstler") and Irion & Vosseler ("IVO"), is Veeder-Root's main international competition. Both these firms have U.S. importing operations that import electromechanical and electronic digital counters, but unlike Veeder-Root, do not have multinational production operations.<sup>33</sup> Veeder-Root officials described the European market as very competitive, with small firms from countries such as Israel and Yugoslavia making substantial inroads.<sup>34</sup>

#### U.S. producers

In its petition, ENM identified four U.S. producers of electromechanical digital counters: itself, Durant Products, Watertown, WI, Veeder-Root, and Redington Counters, Windsor, CT. The petitioner did not, however, provide a list of firms producing other types of digital counters, particularly mechanical and LED or LCD (electronic) digital counters. Although it is not known how many digital counter producers currently operate in the United States, on the basis of review of various business digests such as the Thomas Register, the Commission sent 128 questionnaires to firms known to produce, or suspected of producing, electromechanical, mechanical, or electronic digital counters. Sixty-six companies responded, 10 of whom provided data on digital

---

<sup>26</sup> Transcript, p. 8.

<sup>27</sup> Transcript, pp. 25, 40-41.

<sup>28</sup> Transcript, p. 93.

<sup>29</sup> Transcript, p. 107.

<sup>30</sup> Transcript, p. 157. ENM, however, has historically not sold many digital counters into that market.

<sup>31</sup> Transcript, p. 45.

<sup>32</sup> Field visit with Veeder-Root, Mar. 9, 1990.

<sup>33</sup> Veeder-Root, a U.S. firm, has overseas production operations in Brazil and in \* \* \*.

<sup>34</sup> Transcript, p. 93.

counter production and shipments.<sup>35</sup> Of these firms, four firms reported production of electromechanical digital counters, four firms (the same firms) reported production of mechanical digital counters, and nine firms (including all the producers of electromechanical digital counters except ENM) reported production of electronic digital counters. Several smaller firms specialized in relatively expensive electronic digital counters. Of firms reporting data, two firms (\* \* \*) supported the petition, one (\* \* \*) opposed it, and six took no position.<sup>36</sup>

Electromechanical digital counters.--In the petition, ENM claimed to account for 80 percent of U.S. production of electromechanical digital counters.<sup>37</sup> Based on data received by the Commission, however, ENM holds only a \* \* \*-percent share, by value, and a \* \* \*-percent share, by quantity, of 1989 reported domestic shipments of electromechanical digital counters. Electromechanical digital counter production is by far the major part of ENM's business, with mechanical digital counters accounting for the remainder.<sup>38</sup> ENM does all its production in its one plant in Chicago, IL.<sup>39</sup> In addition, in order to fill out its catalog, it imports certain models of mechanical and electronic digital counters, mostly from \* \* \*.<sup>40</sup>

\* \* \* is the \* \* \* U.S. producer of electromechanical digital counters, with a \* \* \*-percent share, by quantity, of domestic shipments in 1989.<sup>41</sup> Parties testifying at the conference agreed that \* \* \* is a significant producer of electromechanical digital counters \* \* \*.<sup>42</sup> \* \* \*, according to parties, was the \* \* \*.<sup>43</sup> \* \* \* is also alleged to have the lion's share of sales to the \* \* \*, comprising over \* \* \* units per year, and a large share as well of sales to the vending machine industry.<sup>44</sup>

---

<sup>35</sup> Accordingly, 62 companies did not respond to the Commission's producer questionnaire. One of these firms is known to produce electromechanical digital counters; namely \* \* \*, which reportedly produces between \* \* \* to \* \* \* worth of such products annually, accounting for \* \* \* percent of U.S. shipments during the period of investigation. See letter from \* \* \* to Jonathan Seiger, Mar. 20, 1990. Except for this producer, there is no indication that any of the firms refusing to respond to the questionnaire were significant producers of electromechanical digital counters during the period of investigation.

<sup>36</sup> One firm would not respond to the question.

<sup>37</sup> Also see transcript, p. 10.

<sup>38</sup> Transcript, p. 16.

<sup>39</sup> Except for \* \* \*, ENM's production process can be characterized as essentially \* \* \*.

<sup>40</sup> Transcript, p. 32.

<sup>41</sup> Based on reported 1989 domestic shipments.

<sup>42</sup> See also transcript, pp. 37, 55. Veeder-Root testified, however, that to its knowledge, \* \* \*. Transcript, p. 109. In its questionnaire response, \* \* \* did not indicate \* \* \*; in a subsequent conversation with staff, an \* \* \* official claimed that, during the period of investigation, \* \* \*. See conversation with \* \* \*.

<sup>43</sup> See also transcript, pp. 87-88. Veeder-Root claimed that \* \* \*.

<sup>44</sup> See also transcript, pp. 91, 105.

Veeder-Root, the respondent in this investigation, is, by its own assertion, the largest manufacturer of digital counters in the world.<sup>45</sup> In business for over 125 years, the company got its start by manufacturing cyclometers. A wholly owned subsidiary of the Danaher Corp., it operates essentially fully integrated manufacturing facilities in the United States (Elizabethtown, NC, and Altoona, PA), in Sao Paulo, Brazil, and in \* \* \*.<sup>46</sup> In its domestic operations, Veeder-Root manufactures a full line of electromechanical digital counters, with the exception of the miniature variety, which it imports from Brazil.<sup>47</sup> Veeder-Root estimates, however, that its imports from Brazil account for only \* \* \* percent of its total sales of electromechanical digital counters and, in turn, its total sales of electromechanical digital counters constitute only \* \* \* percent of its total sales of digital counters.<sup>48</sup> Through its ownership by Danaher, Veeder-Root has a related company, Dynapar Corp., Gurnee, IL, which produces electronic digital counters. Notwithstanding the relative unimportance of electromechanical digital counters in Veeder-Root's production operations, it does have a \* \* \*-percent share, by quantity, and a \* \* \*-percent share, by value, of 1989 reported domestic shipments.

\* \* \*, the final U.S. producer of electromechanical digital counters reporting data to the Commission, produces \* \* \* digital counters in its sole facility in \* \* \*. \* \* \* occupies the middle ground in terms of the nature of its production operations, being about \* \* \* percent integrated; like Veeder-Root it \* \* \*.<sup>49</sup> \* \* \* also \* \* \*. In its questionnaire response, \* \* \* indicated that \* \* \*.

Mechanical digital counters.--All four producers of electromechanical digital counters reporting data to the Commission also reported data on production of mechanical digital counters. Of these, Veeder-Root is by far the largest, accounting for \* \* \* percent, by value, of reported 1989 domestic shipments. ENM, on the other hand, produces only a very small quantity of mechanical digital counters, comprising less than \* \* \* percent of its total digital counter production. All three producers reported that they ran mechanical digital counters on the same equipment as electromechanical digital counters. There are at least two other producers of mechanical digital counters: \* \* \*. These firms did not respond to the Commission's questionnaire.

Electronic digital counters.--In addition to data from Veeder-Root, \* \* \*, and \* \* \*, the Commission received data from six producers of LED and/or LCD digital counters (electronic digital counters). \* \* \* is the largest U.S. producer of electronic digital counters, with a \* \* \*-percent share of the market in 1989, based on the quantity of reported domestic shipments.<sup>50</sup> Veeder-Root officials testified at the conference, however, that

---

<sup>45</sup> Transcript, p. 73. Veeder-Root does over \* \* \* annually in sales of digital counters.

<sup>46</sup> Its U.S. facilities are \* \* \*.

<sup>47</sup> Transcript, p. 80; respondent's post-conference brief, p. 14.

<sup>48</sup> Most of Veeder-Root's sales of digital counters are of the \* \* \* variety.

<sup>49</sup> Field visit with \* \* \*, Mar. 9, 1990.

<sup>50</sup> Based on the value of domestic shipments, however, \* \* \* was the largest producer of electronic digital counters in 1989.

Red Lion Controls, York, PA, is a major producer of electronic digital counters, significantly bigger than their own operations in that field.<sup>51</sup> This firm, however, did not respond to the Commission's questionnaire.

### U.S. importers

Imports of electromechanical digital counters enter the United States under HTS item No. 9029.10.80, which also provides for "revolution digital counters, production digital counters, odometers, pedometers, and the like;" i.e., all other varieties of digital counters.<sup>52</sup> The Commission sent importers' questionnaires to 36 companies importing more than 10,000 units under HTS item No. 9029.10.80 during January-July 1989, according to the Customs Net Import File. The Commission received responses from 22 companies, 15 of which provided usable data on imports of electromechanical, mechanical, and electronic digital counters.<sup>53</sup> Seven companies reported that they did not import merchandise corresponding to the product definitions in the Commission's questionnaire. Nine firms reported imports of electromechanical digital counters, only two of which (Veeder-Root and \* \* \*) reported imports of such merchandise from Brazil. Six companies reported imports of mechanical digital counters and 15 firms reported imports of electronic digital counters.

Veeder-Root is the \* \* \* U.S. importer of electromechanical digital counters from Brazil. Although its wholly owned subsidiary in Brazil \* \* \*, it exports to the United States only a low-cost miniature electromechanical digital counter (model 779096), in order that the U.S. parent could fill out its product line.<sup>54</sup> Veeder-Root also has a wholly owned subsidiary in \* \* \*; it does not export to the United States from that plant. Veeder-Root ships directly from Brazil to its main U.S. manufacturing facility in Elizabethtown, NC, from where the counters are generally shipped to distributors.<sup>55</sup> Before ordering from Brazil, Veeder-Root generally pools customer orders so as to reach a minimum order size of 1,000 to 5,000 pieces.<sup>56</sup> Based on official U.S. import statistics, Veeder-Root's imports from Brazil constitute \* \* \* percent, by value, of 1989 imports from Brazil under HTS item No. 9029.10.80. Veeder-Root's imports of the 779096 model from Brazil are \* \* \* its domestic production of all electromechanical digital counters during the period of investigation, yet only \* \* \* percent of its production of digital counters in general.

\* \* \* is the \* \* \* importer of electromechanical digital counters from Brazil during the period of investigation. Since 1980, this firm has been importing an electromechanical digital counter from \* \* \*, which is similar to

---

<sup>51</sup> Transcript, p. 122.

<sup>52</sup> Odometers and pedometers are considered to be mechanical digital counters; revolution and production counters can be electronic as well as mechanical or electromechanical.

<sup>53</sup> Accordingly, 14 companies did not respond to the questionnaire.

<sup>54</sup> Transcript, p. 117. It is this model which ENM claims competes directly with its model E6B series, and which prompted ENM to file its petition.

<sup>55</sup> Veeder-Root very seldom ships to its end-user customers directly from Brazil. Transcript, p. 127.

<sup>56</sup> Transcript, p. 125.

Veeder-Root's model 779096. In the late 1980s, however, \* \* \*.<sup>57</sup> As a \* \* \* now imports this model from Brazil, as well as a substantial number of other types of digital counters from \* \* \*. In 1989, \* \* \* imports of electromechanical digital counters from Brazil constituted \* \* \* percent, by value, of imports under HTS item No. 9029.10.80.<sup>58</sup>

Other importers of electromechanical digital counters include \* \* \*, which import substantial quantities of electromechanical digital counters for commercial resale as well as, in the case of \* \* \*, replacement parts for \* \* \*.<sup>59</sup> U.S. subsidiaries of major \* \* \* photocopier manufacturers, such as \* \* \*, also import large volumes of both electromechanical and electronic digital counters as replacement parts for copiers. Some of the U.S. automobile manufacturers also import odometers (primarily mechanical digital counters) from their overseas facilities: \* \* \*.<sup>60</sup>

Although Veeder-Root's imports from Brazil are funneled exclusively through its North Carolina production facility, and \* \* \* likewise through \* \* \*, imports are dispersed fairly evenly throughout the United States. Both parties testified at the conference that there is no concentration of imports in any particular geographic region.<sup>61</sup>

#### Channels of distribution, structure of demand, and classes of purchasers

Producers and importers of electromechanical digital counters market these products through two channels of distribution. Sales are made factory-direct to original equipment manufacturers (OEMs) and through an in-house sales force to independent distributors.<sup>62</sup> Most sales volume comes from purchases by OEMs who buy large quantities of digital counters and are considered to be "house accounts." The petitioner estimates that OEM volume accounts for roughly \* \* \* percent of its total sales revenue from digital counters. \* \* \*, a leading competitor, sells almost \* \* \* percent of its digital counters to OEMs. Veeder-Root, another domestic producer and a leading importer, estimates that its sales to OEMs amount to about \* \* \* percent of total sales. In contrast, \* \* \*, another domestic producer, estimates that \* \* \* percent of its volume is sold to distributors.

---

<sup>57</sup> Conversation with \* \* \*.

<sup>58</sup> The remaining 32 percent of imports under this subheading consists of products other than electromechanical digital counters.

<sup>59</sup> \* \* \* indicated that its import arrangements for electromechanical digital counters consist of shipping counter parts to its \* \* \* parent, who then ships the finished counters back to the United States in a kind of tolling arrangement. The value added in \* \* \* is sufficiently high that these counters are considered to be imports from \* \* \*. Conversation with \* \* \*.

<sup>60</sup> ENM Company also imports a small number of electromechanical digital counters from \* \* \*, along with electronic digital counters from \* \* \*, in order to fill out its product line.

<sup>61</sup> Transcript, pp. 43, 127.

<sup>62</sup> ENM's sales force consists of a sales manager and three salespeople that are on the company payroll, as well as several factory "reps" who work on a commission basis. Veeder-Root employs a sales force of \* \* \* outside salespeople.

Major OEM customers include \* \* \*.<sup>63</sup> These firms manufacture gaming machines, such as slot machines, pinball machines, and various types of metering and vending machines, including commercial washers and dryers. Individually, their annual purchases of digital counters, in quantity terms, range from the tens of thousands to hundreds of thousands.

Veeder-Root estimates that eight or nine of these large OEMs "make the market" for digital counters. According to Veeder-Root, the buying power of this group of OEMs gives them market leverage that pushes competition between vendors to the point of winning or losing a sale by price differences of pennies. Producers and importers agree that most sales of digital counters to OEMs are for standard models that are readily substitutable, whether domestic or imported.

Sales to stocking distributors account for the remainder of total digital counter sales volume. These outlets serve the small quantity, regional dimension of the market. Sales by petitioner to distributors generally are less than \* \* \* units and are for the replacement market, for prototypes, and for quick delivery to small end users such as local gaming and vending machine operators. In contrast, Veeder-Root uses its distributor network for sales of less than \* \* \* units. Sales in quantities \* \* \* are priced such that there is no room for a distributor margin.<sup>64</sup> The distributor market is served by outside company salespersons or by factory representatives. It is nationwide in coverage.

In ENM's judgment, the OEM market volume should be growing, but ENM alleges that, because of the severity of import competition, its own sales volume does not reflect such a pattern. ENM executives point to the large numbers of "slots" being manufactured.<sup>65</sup> This upturn in demand is a response, ENM claims, to the growth in hotel construction and the number of new casinos recently built. All such commercial construction, as well as office building construction, pushes up demand for new gaming and vending machines, and, in turn, demand for digital counters. Although this segment of demand, particularly gaming machines, may be a growth dimension of the digital counter market, Veeder-Root emphasizes that other segments, for example, counters used for monitoring production and other metering usages, are declining segments of demand. Electromechanical systems are being replaced by electronic systems in which the counter function is a minor element of the chip design and often is viewed as a no-extra-cost item in the overall electronic system.

The demand for electromechanical digital counters is a broad-based derived demand that originates in amusement and commercial machines, production machinery, processes, or any purposes that require a count, a summing, or totalizing of an operation for purposes of production control.

---

<sup>63</sup> \* \* \*, a \* \* \*, exports the digital counters it purchases from \* \* \* to its \* \* \*.

<sup>64</sup> Field visit with Veeder-Root, Mar. 9, 1990.

<sup>65</sup> Slot machines depend on the accuracy of the count for their profit level and as a means to stay within the rules governing the number of winners and the amount of such payoffs, percentages or ratios that are regulated by State gaming commissions. Slots use electronic digital counters for this purpose but add in electromechanical digital counters in their control designs as a fallback system in case the electronic digital counter should fail.

Other purposes for which digital counters are required include revenue accounting to prevent loss from thievery or skimming, initiating process changes or sequential operations, measuring distances, traffic control, and timing, dispensing, metering, and monitoring requirements. Among the most frequent users of digital counters are manufacturers of vending, amusement, and gaming machines; electric, water, and telephone meters; and washers, clothes dryers, and liquid dispensers.

OEMs that use digital counters in their products include such firms as \* \* \*, and many others. OEMs buy large quantities direct from domestic producers or importers. Firms using smaller quantities of 500 units, or less, generally buy through distributors. Direct sales to OEMs account for the largest portion of total industry sales volume, whether measured in units or value terms. The share sold direct to OEMs by individual domestic producers and importers ranges from a low of roughly 40 percent to as much as 95 percent.

OEMs place orders annually based on anticipated volume requirements and schedule deliveries on an as-needed basis. Some firms also purchase digital counters at times on a spot basis through distributors for small quantities and quick delivery. Ordinarily, turnaround time for domestic producers is four to six weeks and for imported counters, 14 to 16 weeks. Although domestic producers carry a small number of stock models, most production is to customers' orders. Importers also carry inventory of standard models.

At times, availability of specific models or voltages of a particular model has been a problem for both sources. In such cases, the high degree of substitutability of standard digital counters influences purchasers to make spot purchases from distributors or direct from non-traditional domestic or import sources who happen to have the items in stock.

Distributors sell to small manufacturers of amusement and vending machines and to commercial operators of vending and video games for new machines and for replacement. Although there is a replacement market, as machines wear out or become obsolete, digital counters are generally scrapped with the machine, not salvaged for reuse. There are intermediate product manufacturers that augment the distribution channel by "marrying" digital counters to coin boxes or by attaching electric harnesses for sale as a subassembly to vending and gaming machine producers, to meter manufacturers, and to commercial vending machine operators for replacement.

Domestic producers and importers agree that imported digital counters of the same type and of like voltage are direct substitutes for domestic counters. This substitutability extends to the UL certification that characterizes both domestic and imported AC-voltage digital counters. In fact, Veeder-Root identified a Veeder-Root digital counter that was copied from a Durant model, the Spartan series, and given the name Trojan, as a direct substitute for the Durant product.<sup>66</sup>

Domestic producers of digital counters publish price lists and offer quantity discounts to distributors and to small OEMs. Prices are negotiated annually with large OEMs. These prices generally hold for the subject firm's

---

<sup>66</sup> Field visit with Veeder-Root, Mar. 9, 1990.

annual volume requirements. Rebates on annual achieved volume do not characterize this industry's pricing practices. There is general agreement by domestic producers and importers that transportation costs are not a factor in this market. Terms of domestic producers and importers are similar: 2 percent 10 days, net 30.

### Consideration of Alleged Injury to an Industry in the United States

Data in this section of the report are based on responses to Commission questionnaires. With regard to data on U.S. capacity, production, shipments, inventories, and employment for companies producing digital counters, responses were received from 10 producers, including all four firms identified in the petition as producers of electromechanical digital counters.<sup>67</sup> Accordingly, coverage of the U.S. industry producing electromechanical digital counters is estimated to be substantially complete.<sup>68</sup>

Because of the lack of public data, the extent of coverage of the entire digital counter market represented by responses to the Commission's questionnaire is not determinable. With regard to electronic digital counters, the Commission did not receive a response from Red Lion Controls, which Veeder-Root indicated was a significant producer of electronic digital counters. Other than this firm, however, and several other much smaller firms producing mechanical and electromechanical digital counters, there is no evidence on the record indicating that any of the firms failing to respond to the Commission's questionnaire are significant producers of digital counters.<sup>69</sup>

#### U.S. capacity, production, and capacity utilization

Electromechanical digital counters.--U.S. capacity to produce electromechanical digital counters showed a strong increase throughout the period of investigation, climbing 54 percent from 1987 to 1989 (table 4). Production of such merchandise also increased markedly, at a slightly faster pace, reaching a level of \* \* \* by 1989. Because production increased faster than did capacity over the 3-year period, capacity utilization rose from 61 percent in 1987 to 68 percent in 1989.

---

<sup>67</sup> The Commission also collected certain data on mechanical and electronic digital counters (data on capacity, production, shipments, and inventories) because of the possibility that it might wish to consider firms producing those products as part of the domestic industry. Separate data, however, were not collected regarding employment in firms producing those products, or regarding the profit-and-loss experience of those firms.

Data on these indicators excluding information supplied by Veeder-Root, the respondent in this investigation, are presented in app. C.

<sup>68</sup> As stated above in the section of this report entitled "The U.S. Market," there are no sources of public data regarding production and/or shipments of digital counters in general, or of electromechanical digital counters in particular.

<sup>69</sup> These smaller firms are \* \* \*. \* \* \* indicated that it produces electromechanical digital counters, but no more than \* \* \* worth annually.

Table 4  
Digital counters: U.S. capacity, production, and capacity utilization, by products, 1987-89

Item	1987	1988	1989
<u>End-of-period capacity (units)</u>			
Electromechanical.....	***	***	***
Mechanical.....	***	***	***
Subtotal.....	***	***	***
Electronic.....	***	***	***
Total.....	***	***	***
<u>Production (units)</u>			
Electromechanical.....	***	***	***
Mechanical.....	***	***	***
Subtotal.....	***	***	***
Electronic.....	***	***	***
Total.....	***	***	***
<u>Capacity utilization (percent) 1/</u>			
Electromechanical.....	60.6	67.0	67.7
Mechanical.....	79.5	77.5	63.5
Subtotal.....	75.4	74.8	64.8
Electronic.....	71.5	73.3	79.5
Total.....	74.8	74.6	67.0

1/ Computed from responses of firms providing both production and capacity.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Electromechanical and mechanical digital counters.--During 1987-89, U.S. capacity to produce both mechanical and electromechanical digital counters showed an increasing trend, but one which was far less marked than that for electromechanical digital counters, when viewed separately; capacity increased just 10 percent over the period. Production of these products actually declined by 5 percent from 1987 to 1989, as these data were heavily influenced by declining production of mechanical digital counters. As production fell while capacity increased, capacity utilization in facilities producing both products fell from 75 percent in 1987 to 65 percent in 1989.

All digital counters.--Aided by increases in the capacity to produce electronic digital counters, the rise in capacity to produce all types of digital counters showed a marginally greater rise during the period (11 percent) than did the increase in capacity to produce electromechanical and mechanical digital counters combined, although it was far less dramatic than that for electromechanical digital counters alone. Production first increased slightly, then fell back in 1989 to approximately its 1987 level; as a result, capacity utilization fell 8 percentage points over the period.

In its petition and questionnaire response, ENM premised its capacity on operating its facility three full shifts. It testified at the conference and in field visits with staff that three shifts could be run without additional capital expenditures or need for additional space.<sup>70</sup> Petitioner acknowledged, however, that it has never run three shifts in the past, and during the period of investigation, generally ran only one shift.<sup>71</sup> No other domestic producer of digital counters reported two- or three-shift operation, regardless of the type of digital counter produced. Veeder-Root officials indicated that in its experience, two- or three-shift operation is characteristic only of the manufacturing aspects of its operation (e.g., molding plastic parts).<sup>72</sup>

Producers, including ENM, who reported production of mechanical digital counters indicated that such digital counters are run on the same production line as the electromechanical type.<sup>73</sup> Only the coil subassembly is different. With regard to electronic digital counters, only the final assembly procedure is similar to that for electromechanical digital counters.<sup>74</sup> Both parties agreed that the basic production technology for electromechanical digital counters has not changed in over 25 years.<sup>75</sup> The size of U.S. producers' production runs varies with firm size: ENM's average run is about \* \* \* pieces, whereas Veeder-Root's North Carolina facility can run up to \* \* \* pieces at a time.<sup>76</sup>

With regard to its assembly-type operations, petitioner indicated that it procures all its supplies domestically, indeed from local Chicago suppliers, and that it has encountered no constraints in obtaining such supplies. Neither the petitioner nor Veeder-Root indicated any problem with obtaining labor, capital equipment, or supplies during the period of investigation.<sup>77</sup>

In its petition, ENM referred to various closings of plants manufacturing digital counters in recent years, but provided no subsequent record information to support the allegations.<sup>78</sup> Veeder-Root did, however, note that in 1988, it closed its original Hartford, CT, factory, because of what it claimed was a long-term trend towards production of electronic digital counters. This reduced the number of production employees required for its overall operations.<sup>79</sup>

---

<sup>70</sup> Transcript, p. 48; field visit with ENM, Mar. 9, 1990.

<sup>71</sup> Transcript, p. 54.

<sup>72</sup> Transcript, p. 137.

<sup>73</sup> Transcript, p. 38; field visit with ENM, Mar. 9, 1990.

<sup>74</sup> Field visit with Veeder-Root, Mar. 9, 1990. Producers of electronic digital counters indicated that such products as photomultiplier accessories, optical sensors, measuring wheels, and encoders could be run on the same equipment as electronic digital counters.

<sup>75</sup> Transcript, p. 47.

<sup>76</sup> Field visits with ENM and Veeder-Root, Mar. 9, 1990.

<sup>77</sup> Transcript, pp. 41, 49; field visit with Veeder-Root, Mar. 9, 1990.

<sup>78</sup> Petition, p. 1.

<sup>79</sup> Transcript, p. 103.

U.S. producers' domestic and export shipments

Electromechanical digital counters.-- Four producers reported data on their domestic and export shipments of electromechanical digital counters (table 5). These data show that the quantity of domestic shipments of this merchandise increased by \* \* \* percent from 1987 to 1988, and then more strongly, by 31 percent, from 1988 to 1989. In terms of value, however, such shipments increased in 1988, then fell in 1989 to a level only 4 percent higher than that of 1987. As a result, unit values declined markedly from \$14.06 in 1987 to \* \* \* in 1989. Volumes of export shipments were far less significant than domestic shipments for these producers during the period of investigation. Unit values of those shipments, however, plummeted almost 40 percent between 1987 and 1988, and remained less than half of corresponding unit values for domestic shipments in 1989.

Electromechanical and mechanical digital counters.--The same four producers reported data on their shipments of mechanical digital counters. When combined with data on electromechanical digital counters, domestic shipments of these products dropped off slightly from \* \* \* units in 1987 to \* \* \* units in 1989, because of declining sales of mechanical digital counters. In terms of value, such shipments also fell off, accelerating their decline in 1989. Unit values first rose in 1988, then decreased in 1989 to \* \* \*.

By contrast, export shipments of this merchandise rose sharply in 1988, by 28 percent over their 1987 level, and continued to increase in 1989. As the value of such shipments declined throughout the period of investigation, however, unit values demonstrated a steady decline.

All digital counters.--The quantity of domestic shipments of all varieties of digital counters rose slightly from 1987 to 1988, then fell in 1989 to below its 1987 level (table 6). In contrast, the value of such shipments rose steadily; thus, unit values climbed consistently over the 3-year period. Trends in total shipments of such merchandise, however, were slightly different, at least in terms of quantity. Because of increasing export volume, total shipments of digital counters rose slightly during the period of investigation.

Only three firms reported export shipments of digital counters during the period of investigation: \* \* \*.<sup>80</sup> For \* \* \*, the largest exporter of digital counters, export shipments constituted barely \* \* \* percent, by quantity, of its total shipments in 1988.<sup>81</sup>

---

<sup>80</sup> ENM indicated that \* \* \*. Its main export markets are \* \* \*. Field visit with ENM, Mar. 9, 1990.

<sup>81</sup> \* \* \*.

Table 5  
Electromechanical and mechanical digital counters: Shipments of U.S.  
producers, by types and by products, 1987-89

Item	1987	1988	1989
	Quantity (units)		
Electromechanical:			
Domestic shipments.....	866,655	***	***
Export shipments.....	***	***	***
Total.....	***	***	***
Electromechanical and mechanical:			
Domestic shipments.....	***	***	***
Export shipments.....	***	***	***
Total.....	***	***	***
	Value (1,000 dollars)		
Electromechanical:			
Domestic shipments.....	12,189	12,908	12,706
Export shipments.....	***	***	***
Total.....	***	***	***
Electromechanical and mechanical:			
Domestic shipments.....	***	***	52,493
Export shipments.....	***	***	***
Total.....	64,078	63,774	***
	Unit value		
Electromechanical:			
Domestic shipments.....	\$14.06	\$***	\$***
Export shipments.....	10.20	6.19	4.53
Average.....	***	***	***
Electromechanical and mechanical:			
Domestic shipments.....	11.22	11.31	***
Export shipments.....	39.88	30.19	22.50
Average.....	***	***	11.93

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 6  
Digital counters: Shipments of U.S. producers, by types, 1987-89 1/

Item	1987	1988	1989
<u>Quantity (units)</u>			
Domestic shipments.....	***	***	***
Export shipments.....	***	***	***
Total.....	***	***	***
<u>Value (1,000 dollars)</u>			
Domestic shipments.....	91,869	***	121,726
Export shipments.....	***	***	***
Total.....	***	***	***
<u>Unit value</u>			
Domestic shipments.....	\$***	\$16.93	\$***
Export shipments.....	51.46	41.67	32.40
Total.....	16.99	18.00	21.85

1/ One firm reported a very small quantity of company transfers in 1989.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

#### U.S. producers' imports

Out of 10 producers providing data on domestic production of digital counters, eight reported data on imports of such merchandise (table 7). Except for Veeder-Root, none reported imports from Brazil during the period of investigation; most imported from Japan, or from European sources. Total imports by U.S. producers were equal to 8 percent, by quantity, of those firms' production during 1989, and 7 percent of total 1989 domestic production.

Imports of electromechanical digital counters from Brazil by U.S. producers \* \* \* from 1987 to 1988, by \* \* \* percent, before \* \* \*, by \* \* \* percent, in 1989. Imports of such products from other countries declined only slightly throughout the period. In terms of value, the decline in 1989 was somewhat more pronounced than the movement in quantity-based data, \* \* \*.

U.S. producers' imports of all types of digital counters from all sources followed a trend \* \* \* imports of electromechanical digital counters from all sources. The volume of digital counter imports from countries other than Brazil, however, \* \* \* throughout the period of investigation.

Table 7

Digital counters: Imports by U.S. producers from Brazil and all other sources, by types, 1987-89

Item	1987	1988	1989
<u>Quantity (units)</u>			
Electromechanical digital counters from--			
Brazil 1/.....	***	***	***
All other sources 2/.....	***	***	***
Total.....	***	***	***
All digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	365,135	482,159	446,064
<u>Value (1,000 dollars)</u>			
Electromechanical digital counters from--			
Brazil 1/.....	***	***	***
All other sources 2/.....	***	***	***
Total.....	***	***	***
All digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	3,401	4,638	4,064
<u>Unit value 3/</u>			
Electromechanical digital counters from--			
Brazil.....	\$1.34	\$1.12	\$1.06
All other sources.....	7.50	8.12	8.17
Total.....	1.83	1.49	1.41
All digital counters from--			
Brazil.....	1.35	1.15	1.15
All other sources.....	20.11	27.86	28.34
Total.....	9.31	9.62	9.11

1/ Limited to imports by Veeder-Root from Brazil.

2/ Limited to imports by \* \* \* and ENM from \* \* \*, respectively.

3/ Computed from responses of firms providing both quantity and value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers' inventories

Parties to the proceeding generally agree that, because of the nature of Veeder-Root's importing operations, domestic producers of digital counters have an advantage in providing quick delivery. The petitioner claims an average lead time for its products of 4 weeks, whereas Veeder-Root reported a lead time of 14 to 16 weeks for its imported Brazilian digital counters.<sup>82</sup> In general, industry officials indicated that quick turnaround is not a major concern in the digital counter market.<sup>83</sup>

Nine firms provided data on their end-of-period inventories of electromechanical, mechanical, and electronic digital counters during the period of investigation (table 8). With regard to electromechanical digital counters, inventories climbed sharply from 1987 to 1988, by 62 percent, and then experienced an over 50-percent drop in 1989, falling to below their 1987 level. As a ratio to preceding-period U.S. shipments, such inventories first increased, then declined to under 2 percent of shipments. When viewed together, end-of-period inventories of electromechanical and mechanical digital counters demonstrated a similar pattern to that of electromechanical digital counters when viewed separately; 1989 inventory levels were only 72 percent of 1987 totals. Ratios of inventories to preceding-period shipments also moved in tandem with those for electromechanical digital counters, but were slightly higher throughout the period. When considered as a whole, end-of-period inventories of all types of digital counters (including electronic digital counters) showed similar trends.

Although ratios of inventories to shipments are uniformly low across products, producers of electronic digital counters generally had a slightly smaller propensity to keep inventories than producers of other types of digital counters. This may be explained by the fact that such digital counters are more likely to be custom-manufactured to customer specifications and, in general, are far more technologically complex than mechanical or electromechanical digital counters.

---

<sup>82</sup> Transcript, p. 44; field visit with ENM, Mar. 9, 1990. ENM noted that, in an emergency, orders could be filled within a week.

Differences in lead times are perhaps misleading, however, because for imports sold to OEM customers, Veeder-Root tends to keep large quantities in stock in its North Carolina warehouse. Veeder-Root indicated that it very seldom ships directly to the customer from Brazil. Transcript, p. 127; field visit with Veeder-Root, Mar. 9, 1990.

<sup>83</sup> ENM commented that \* \* \*. Most of ENM's production is \* \* \*.

Table 8

Digital counters: U.S. producers' inventories, by products, as of December 31, 1987-89

Item	1987	1988	1989
<u>Inventories (units)</u>			
Electromechanical.....	***	***	***
Mechanical.....	***	***	***
Subtotal.....	***	***	***
Electronic.....	***	***	***
Total.....	***	***	***
<u>Ratio to U.S. shipments (percent)</u>			
Electromechanical.....	***	4.2	1.6
Mechanical.....	3.8	5.0	3.4
Subtotal.....	3.7	4.8	2.8
Electronic.....	4.3	2.2	1.2
Total.....	3.8	4.4	2.6

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

#### U.S. employment, wages, and productivity

Electromechanical digital counters.--Four producers, comprising 100 percent of 1989 reported production, reported data on the number of production and related workers engaged in the production of electromechanical digital counters, the total hours worked by such workers, and the wages and total compensation paid to such workers during the period of investigation. The number of production workers employed in the production of electromechanical digital counters declined very slightly, by 4 percent, from 1987 to 1989, as did the number of hours worked by such workers (table 9). Wages and total compensation paid to these employees, on the other hand, climbed notably throughout the period; the latter indicator increased 7 percent from 1987 to 1989. On an hourly basis, total wages and compensation also climbed; total hourly compensation approached \$10.00 per hour by 1989. During the period of investigation, productivity increased strongly, while unit labor costs fell strikingly, by 38 percent overall.<sup>84</sup>

<sup>84</sup> Productivity levels were especially high, and increased sharply over the period of investigation, for \* \* \*, which had productivity levels \* \* \* those of the other reporting producers.

Table 9

Total establishment employment and average number of production and related workers producing electromechanical digital counters and all digital counters, hours worked, <sup>1/</sup> wages and total compensation <sup>2/</sup> paid to such employees, and labor productivity, hourly compensation, and unit labor production costs, 1987-89 <sup>3/</sup>

Item	1987	1988	1989
Total number of employees in establishments.....	3,988	3,962	3,888
<u>Number of production and related workers (PRWs)</u>			
All products.....	2,490	2,541	2,510
Electromechanical digital counters.....	199	193	191
All digital counters.....	1,173	***	***
<u>Hours worked by PRWs (thousands)</u>			
All products.....	3,555	3,516	3,371
Electromechanical digital counters.....	418	400	400
All digital counters.....	2,383	***	2,186
<u>Wages paid to PRWs (thousands of dollars)</u>			
All products.....	43,777	47,139	49,014
Electromechanical digital counters.....	2,949	3,032	3,118
All digital counters.....	***	***	***
<u>Total compensation paid to PRWs (thousands of dollars)</u>			
All products.....	55,462	59,923	63,523
Electromechanical digital counters.....	3,698	3,840	3,955
All digital counters.....	***	***	***
<u>Hourly wages paid to PRWs <sup>4/</sup></u>			
All products.....	\$12.31	\$13.41	\$14.54
Electromechanical digital counters.....	7.06	7.58	7.80
All digital counters.....	***	9.04	***

See footnotes at end of table.

Table 9--Continued

Total establishment employment and average number of production and related workers producing electromechanical digital counters and all digital counters, hours worked, 1/ wages and total compensation 2/ paid to such employees, and labor productivity, hourly compensation, and unit labor production costs, 1987-89 3/

Item	1987	1988	1989
<u>Hourly total compensation paid to PRWs 4/</u>			
All products.....	\$15.60	\$17.04	\$18.84
Electromechanical digital counters.....	8.85	9.60	9.89
All digital counters.....	***	11.52	***
<u>Productivity (units per hour) 5/</u>			
Electromechanical digital counters.....	2.1	3.0	3.8
All digital counters.....	2.5	2.7	2.7
<u>Unit labor costs (per unit) 6/</u>			
Electromechanical digital counters.....	\$4.15	\$3.24	\$2.57
All digital counters.....	4.31	4.27	4.41

1/ Includes hours worked plus hours of paid leave time.

2/ Includes wages and contributions to Social Security and other employee benefits.

3/ In 1989, firms providing employment data accounted for 100 percent of the reported quantity of domestic shipments of electromechanical digital counters, and over 99 percent of the reported quantity of domestic shipments of all digital counters.

4/ Calculated using data from firms that provided information on both hours worked by, and compensation paid to, PRWs.

5/ Calculated using data from firms that provided information on both hours worked and production.

6/ On the basis of total compensation paid. Calculated using data from firms that provided information on both total compensation paid and production.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

All digital counters.--Of the 10 firms providing data on production of digital counters, 7 provided data on employment in facilities producing these products, whether electromechanical, mechanical, or electronic. According to these data, both the number of workers employed in facilities producing digital counters and the hours worked by those employees fell slightly between 1987 and 1989. Wages and total compensation first rose in 1988, by 3 percent for each indicator, then decreased by a smaller percentage in 1989, for an overall increase of 2 percent in both cases. As with workers producing electromechanical digital counters, both hourly wages and compensation increased during the period of investigation, as did productivity, but far

less strongly. In contrast to the experience of facilities producing electromechanical digital counters, those producing all types of digital counters experienced slightly rising unit labor costs during 1987-89.

Although production of electromechanical digital counters involves working with very small components and is highly labor-intensive, parties characterized such production as requiring primarily unskilled, easily trained labor. At most, the petitioner estimated that workers could be trained as assemblers in a day or less.<sup>85</sup> Production of electronic digital counters, however, is much more capital-intensive, as more sophisticated manufacturing and less assembly is required compared to other types of digital counters.<sup>86</sup>

Of the 10 producers reporting data on domestic production of digital counters, only one, Veeder-Root, is unionized, and only in its Altoona, PA, plant.<sup>87</sup> Other than the closing of Veeder-Root's Hartford plant mentioned above, no U.S. digital counter producer reported any reductions in force during the period of investigation.<sup>88</sup>

#### Financial experience of U.S. producers

Seven companies provided income-and-loss data on their overall establishment operations and on their operations producing all types of digital counters. Four of these firms submitted financial data on their operations producing the subject product (electromechanical digital counters). These four companies accounted for 100 percent of reported industry production in 1989.

Industry sales of electromechanical digital counters accounted for \* \* \* percent of reported digital counter sales in 1989. A tabulation of net sales is shown below (in thousands of dollars):

<u>Company</u>	<u>Electromechanical</u>	<u>All Digital</u>	<u>Establishment</u>
ENM.....	***	1/ ***	***
***.....	***	***	***
Veeder-Root....	***	***	***
***.....	***	***	***
All others.....	***	***	***
Total.....	14,803	***	130,093

1/ \* \* \*.

<sup>85</sup> Transcript, p. 41.

<sup>86</sup> Field visit with Veeder-Root, Mar. 9, 1990.

<sup>87</sup> The workers are represented by the United Auto Workers (UAW).

<sup>88</sup> ENM reported that in 1987, \* \* \*.

The establishment income-and-loss experience of the producers is shown in table 10.

Operations on electromechanical digital counters.--The income-and-loss experience of producers of electromechanical digital counters is shown in table 11. Net sales rose from \$13.6 million in 1987 to \$14.7 million in 1988, an increase of 8.5 percent. In 1989, sales were \$14.8 million, an increase of 0.5 percent over 1988 sales. Operating income was \* \* \* million in 1987, \* \* \* million in 1988, and \* \* \* million in 1989. Operating income margins, as a percent of sales, were \* \* \* in 1987, 1988, and 1989, respectively. \* \* \*.

Operations on all digital counters.--The income-and-loss experience of producers of all digital counters is presented in table 12. Net sales in 1988 were \* \* \* million, an increase of 11.1 percent over 1987 sales of \* \* \* million. Sales in 1989 were \* \* \* million, an increase of 3.8 percent over 1988 sales. Operating income was \* \* \* million in 1987, 1988, and 1989, respectively. Operating income margins, as a percent of sales, were \* \* \* in 1989. One firm incurred an operating loss in 1987 and 1988 and two firms incurred such losses in 1989.

Selected income-and-loss data of the electromechanical producers, by producer \* \* \*, is shown in table 13. There was a wide variance in the operating performance of the producers. These disparate results could be attributable to factors such as product mix, size of the producers, type of operations, location of facilities, and differences in overhead costs.

\* \* \* \* \* \* \* \* 89

Investment in productive facilities.--Six companies provided data on their investment in productive facilities for all products of the establishment and all digital counters. These data, as well as return-on-asset data, are shown in table 14. \* \* \*.

---

<sup>89</sup> ENM \* \* \*. Telephone conversation with \* \* \*.

Table 10

Income-and-loss experience of U.S. producers on the overall operations of their establishments within which electromechanical digital counters are produced, accounting years 1987-89

Item	1987	1988	1989
	<u>Value (1,000 dollars)</u>		
Net sales.....	110,711	124,594	130,093
Cost of goods sold.....	***	***	***
Gross profit.....	***	***	***
Selling, general and administrative expenses...	***	***	***
Operating income.....	***	***	***
Startup or shutdown expense.....	***	***	***
Interest expense.....	***	***	***
Other income or (expense), net.....	***	***	***
Net income or (loss) before income taxes.....	***	***	***
Depreciation and amorti- zation included above.....	***	***	***
Cash flow <sup>1/</sup> .....	***	***	***
	<u>Share of net sales (percent)</u>		
Cost of goods sold.....	***	***	***
Gross profit.....	***	***	***
Selling, general and administrative expenses...	***	***	***
Operating income.....	***	***	***
Net income or (loss) before income taxes.....	***	***	***
	<u>Number of firms reporting</u>		
Operating losses.....	0	0	1
Net losses.....	0	0	1
Data.....	7	7	7

<sup>1/</sup> Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 11  
Income-and-loss experience of U.S. producers on their operations producing electromechanical digital counters, accounting years 1987-89 1/

Item	1987	1988	1989
	<u>Value (1,000 dollars)</u>		
Net sales.....	13,576	14,729	14,803
Cost of goods sold.....	***	***	***
Gross profit.....	***	***	***
Selling, general and administrative expenses...	***	***	***
Operating income.....	***	***	***
Startup or shutdown expense.....	***	***	***
Interest expense.....	***	***	***
Other income or (expense), net.....	***	***	***
Net income or (loss) before income taxes.....	***	***	***
Depreciation and amorti- zation included above.....	***	***	***
Cash flow 2/.....	***	***	***
	<u>Share of net sales (percent)</u>		
Cost of goods sold.....	***	***	***
Gross profit.....	***	***	***
Selling, general and administrative expenses...	***	***	***
Operating income.....	***	***	***
Net income or (loss) before income taxes.....	***	***	***
	<u>Number of firms reporting</u>		
Operating losses.....	1	1	1
Net losses.....	0	0	1
Data.....	4	4	4

1/ Both Veeder-Root and \* \* \* have fiscal years which end December 31. \* \* \* and ENM's fiscal years end March 31, but ENM supplied data for the calendar years ended December 31.

2/ Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 12

Income-and-loss experience of U.S. producers on their operations producing all digital counters, accounting years 1987-89

Item	1987	1988	1989
	Value (1,000 dollars)		
Net sales.....	***	***	***
Cost of goods sold.....	***	***	***
Gross profit.....	***	***	***
Selling, general and administrative expenses...	***	***	***
Operating income.....	***	***	***
Startup or shutdown expense.....	***	***	***
Interest expense.....	***	***	***
Other income or (expense), net.....	***	***	***
Net income or (loss) before income taxes.....	***	***	***
Depreciation and amorti- zation included above.....	***	***	***
Cash flow 1/.....	***	***	***
	Share of net sales (percent)		
Cost of goods sold.....	***	***	***
Gross profit.....	***	***	***
Selling, general and administrative expenses...	***	***	***
Operating income.....	***	***	***
Net income or (loss) before income taxes.....	***	***	***
	Number of firms reporting		
Operating losses.....	1	1	2
Net losses.....	0	0	2
Data.....	7	7	7

1/ Cash flow is defined as net income or loss plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 13

Selected income-and-loss data of U.S. producers on their operations producing electromechanical digital counters, by firms, accounting years 1987-89 1/

Item	1987	1988	1989
	Value (1,000 dollars)		
Net sales:			
ENM.....	***	***	***
***.....	***	***	***
***.....	***	***	***
Subtotal.....	***	***	***
Veeder-Root.....	***	***	***
Total.....	13,576	14,729	14,803
Operating income or (loss):			
ENM.....	***	***	***
***.....	***	***	***
***.....	***	***	***
Subtotal.....	***	***	***
Veeder-Root.....	***	***	***
Total.....	***	***	***
	Share of net sales (percent)		
Operating income or (loss):			
ENM.....	***	***	***
***.....	***	***	***
***.....	***	***	***
Subtotal.....	***	***	***
Veeder-Root 2/.....	***	***	***
Total.....	***	***	***

1/ Both Veeder-Root and \* \* \* have fiscal years that end December 31. \* \* \*'s and ENM's fiscal years end March 31, but ENM supplied data for the calendar year ended December 31.

2/ \* \* \*.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 14  
 Digital counters: Value of property, plant, and equipment of U.S. producers,  
 accounting years 1987-89

Item	As of end of accounting year--		
	1987	1988	1989
	Value (1,000 dollars)		
All products of establishments:			
Fixed assets:			
Original cost.....	***	***	***
Book value.....	***	***	***
Total assets 1/.....	***	***	***
All digital counters:			
Fixed assets:			
Original cost.....	***	***	***
Book value.....	***	***	***
Total assets 2/.....	***	***	***
Electromechanical digital counters:			
Fixed assets:			
Original cost.....	***	***	***
Book value.....	***	***	***
Total assets 2/.....	***	***	***
	Return on book value of fixed assets (percent) 3/		
All products of establishments:			
Operating return 4/.....	129.7	148.9	215.3
Net return 5/.....	129.0	148.3	208.6
All digital counters:			
Operating return 4/.....	111.1	133.2	192.0
Net return 5/.....	113.6	133.0	188.7
Electromechanical digital counters:			
Operating return 4/.....	156.6	185.1	158.1
Net return 5/.....	170.1	187.3	152.4

Table continued on next page.

Table 14--Continued

Electromechanical digital counters: Value of property, plant, and equipment of U.S. producers, accounting years 1987-89

Item	As of end of accounting year--		
	1987	1988	1989
	<u>Return on total assets (percent) 3/</u>		
All products of establishments:			
Operating return 4/.....	21.9	22.8	26.7
Net return 5/.....	23.4	29.4	26.6
All digital counters:			
Operating return 4/.....	24.8	27.1	30.7
Net return 5/.....	25.3	27.1	30.1
Electromechanical digital counters:			
Operating return 4/.....	26.9	30.4	23.5
Net return 5/.....	29.2	30.8	22.6

1/ Defined as book value of fixed assets plus current and noncurrent assets.

2/ Total establishment assets are apportioned, by firm, to product groups on the basis of the ratio of the respective book values of fixed assets.

3/ Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be derivable from data presented.

4/ Defined as operating income or loss divided by asset value.

5/ Defined as net income or loss divided by asset value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Capital expenditures.--Six companies furnished data on their overall establishment and all digital counter capital expenditures. Four companies furnished such data on their electromechanical digital counter capital expenditures. These data are shown in the tabulation below (in thousands of dollars):

<u>Item</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
All products of establishments.....	***	***	***
All digital counters.....	***	***	***
Electromechanical digital counters.....	***	***	***

Research and development expenses.--Four firms supplied data on their research and development expenses for the establishment and all digital counters and electromechanical digital counters. These data are shown in the tabulation below (in thousands of dollars):

<u>Item</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
All products of establishments.....	***	***	***
All digital counters.....	***	***	***
Electromechanical digital counters.....	***	***	***

Capital and investment.--The Commission requested U.S. producers to describe any actual or potential negative effects of imports of electromechanical digital counters from Brazil on their firm's growth, investment, ability to raise capital, and the effect of imports on the scale of capital investments. Their responses are shown in appendix D.

Consideration of the Question of  
Threat of Material Injury

Section 771(7)(F)(i) of the Tariff Act of 1930 (19 U.S.C. § 1677(7)(F)(i)) provides that--

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of any merchandise, the Commission shall consider, among other relevant factors<sup>90</sup>--

(I) If a 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 subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,

---

<sup>90</sup> Section 771(7)(F)(ii) of the act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation,

(IX) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and

(X) the 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 like product.<sup>91</sup>

Information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the causal relationship between imports of the subject merchandise and the alleged material injury;" and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in the section entitled "Consideration of alleged injury to an industry in the United States." Item I, regarding subsidies, and item IX, regarding agricultural products, are not relevant in this case. The potential for "product-shifting" (item (VIII)) is not an issue in this investigation, because there are no known producers subject to investigation or to final orders that use production facilities that can be shifted to produce electromechanical digital counters. Parties are unaware of any dumping findings in third countries concerning electromechanical digital counters from Brazil. Available information on U.S. inventories of the subject products (item (V)); the foreign producer's operations (items (II) and (VI) above); and any other threat indicators, if applicable (item (VII) above); follows.

---

<sup>91</sup> Section 771(7)(F)(iii) of the act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other GATT member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

U.S. importers' end-of-period inventories

Both Veeder-Root and \* \* \*, the only U.S. importers of electromechanical digital counters from Brazil, reported information on their end-of-period inventories of such imports. Six additional importers of digital counters, from Brazil and from all other sources, also reported information on end-of-period inventories. These data are presented in table 15.

End-of-period inventories of electromechanical digital counters imported from Brazil moved upward slightly between 1987 and 1988, before increasing strongly, by 52 percent, between 1988 and 1989. Total end-of-period inventories also increased notably during the 1987-89 period. In relation to preceding-period shipments, however, \* \* \* and Veeder-Root decreased their inventory levels in 1988, before increasing them in 1989, but to levels below those of 1987. Total inventories exhibited a similar pattern with respect to preceding-period shipments, yet the rebound in 1989 was far stronger.

With regard to end-of-period inventories of all digital counters, the trend between 1987 and 1989 followed a roughly similar pattern, but was far less marked. The increase in end-of-period inventories between 1987 and 1989 amounted to only 11 percent for inventories from Brazil and 17 percent for inventories of imports from all sources. In relation to preceding-period shipments, however, end-of-period inventories of all digital counters from Brazil fell sharply from 1987 to 1989, while inventories of all digital counters from all sources first edged upward, then retreated to their 1987 level by the end of the period.

As is seen from the table, inventory levels in relation to shipments are much higher for U.S. importers than for producers. This reflects a desire on the part of importers to compensate for their built-in disadvantage of having to source from overseas. Although, as noted previously, speed of delivery is not normally a vital factor in the digital counter market, it is sufficiently important to some of Veeder-Root's customers that Veeder-Root attempts to hold large quantities of inventories itself and to require that its distributor customers do the same.<sup>92</sup>

Importers were requested to report any expected deliveries of electromechanical digital counters from Brazil after December 31, 1989. Veeder-Root reported that an estimated \* \* \* units would be delivered in calendar year 1990.<sup>93</sup> For its part, \* \* \* indicated that it expected to import \* \* \* units in the first quarter of 1990.

---

<sup>92</sup> Transcript, p. 94. Veeder-Root sells primarily from a central warehouse facility in North Carolina; it \* \* \*. Field visit with Veeder-Root, Mar. 9, 1990.

<sup>93</sup> In its questionnaire response, Veeder-Root noted \* \* \*.

Table 15

Digital counters: U.S. importers' end-of-period inventories of imported products, by products and by sources, as of December 31, 1987-89

Item	1987	1988	1989
	Inventories (units)		
Electromechanical digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	***	***	***
All digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	299,629	349,441	350,487
	Ratio to U.S. shipments (percent) 1/		
Electromechanical digital counters from--			
Brazil.....	30.8	21.7	23.3
All other sources.....	46.6	37.5	62.2
Average.....	39.0	29.4	37.3
All digital counters from--			
Brazil.....	42.5	30.9	21.1
All other sources.....	12.3	13.8	13.8
Average.....	15.2	16.0	15.2

1/ Computed from responses of firms providing both inventories and shipments.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Ability of foreign producers to generate exports and the availability of export markets other than the United States

Veeder-Root do Brasil ("Veeder-Root-Brazil"), an affiliate of Veeder-Root, is the largest exporter of electromechanical digital counters from Brazil to the United States. Along with electromechanical digital counters, it produces mechanical and electronic digital counters in its Sao Paulo, Brazil production facility, which has been producing digital counters for over 30 years. Only \* \* \* percent of Veeder-Root-Brazil's production consists of electromechanical digital counters; the majority (\* \* \* percent) is accounted for by mechanical digital counters, with \* \* \* made up of electronic digital counters.<sup>94</sup> The only variety of electromechanical digital counter exported to

<sup>94</sup> Veeder-Root commented that the market for electronic digital counters is less well developed in Brazil than in the United States because of stringent import restrictions on the parts necessary for their manufacture. It also reported that its Brazilian facility produced electronic digital counters on the same equipment as that used for electromechanical digital counter production. Transcript, p. 112.

the United States is model 779096, a low-cost, miniature electromechanical digital counter.<sup>95</sup> Veeder-Root also exports small quantities of a mechanical, "hand tally," digital counter.

Veeder-Root's Brazilian operation is fully integrated, including, unlike its U.S. affiliate, the coil-winding operation.<sup>96</sup> Veeder-Root procures its supplies almost exclusively in Brazil, and has not encountered any problems obtaining either supplies, capital equipment, or labor.<sup>97</sup> Along with exporting model 779096 to the United States, Veeder-Root also exports to Europe; its total exports are \* \* \*. Historically, Veeder-Root-Brazil's largest domestic customer has been the Brazilian telecommunications industry, which used large quantities of electromechanical digital counters in phone-switching equipment.<sup>98</sup> This market, however, has \* \* \*.<sup>99</sup>

In addition to Veeder-Root, there is apparently at least one additional firm producing electromechanical digital counters in Brazil and exporting them to the United States: \* \* \*, a company related to a Japanese manufacturer, \* \* \*. According to a spokesman for \* \* \*, the U.S. importer from \* \* \*, this recently nationalized company used to be a wholly owned subsidiary of \* \* \*. \* \* \* set up the original company to assemble digital counters from parts manufactured in \* \* \*. At first, sales of this production were limited to the Brazilian market, but because of cost factors, in the late 1980s \* \* \* started exporting to the United States from the Brazilian plant.

The Commission requested the U.S. embassy in Brasilia to provide information regarding Brazilian production, domestic shipments, exports, inventories, and capacity to produce electromechanical digital counters. To date, no data have been received. Data on Veeder-Root's Brazilian operations, however, as supplied by counsel for Veeder-Root, are presented in table 16.

Table 16  
Electromechanical digital counters: Veeder-Root do Brasil's production, capacity, inventories, home market shipments, and exports to the United States and to all other markets, 1987-90 1/

Item	1987	1988	1989	1990 2/
* * *	*	*	*	*

<sup>95</sup> Transcript, p. 88. Although model 779096 is the only electromechanical digital counter currently exported to the United States, Veeder-Root officials indicated \* \* \*. Field visit with Veeder-Root, Mar. 9, 1990.

<sup>96</sup> Transcript, p. 96.

<sup>97</sup> Transcript, p. 133.

<sup>98</sup> Transcript, p. 91.

<sup>99</sup> Field visit with Veeder-Root, Mar. 9, 1990.

As can be seen from the table, Veeder-Root-Brazil's production of electromechanical digital counters \* \* \* from 1987 to 1988, then \* \* \* sharply, by \* \* \* percent, in 1989. As capacity \* \* \* throughout the period, capacity utilization \* \* \* markedly in 1989, to a \* \* \* of \* \* \* percent. From 1988 to 1989, because exports to the United States \* \* \* as production \* \* \*, their share of production continued its \* \* \*. During the period 1987 through 1989, exports to the United States as a share of production \* \* \*. Such exports also took a \* \* \* share of total exports throughout the period, \* \* \* from \* \* \* percent in 1987 to \* \* \* percent in 1989. Home-market shipments \* \* \* continuously over the 3-year period.

### Consideration of the Causal Relationship Between Imports of the Subject Merchandise and the Alleged Material Injury

#### U.S. imports

Because imports of electromechanical digital counters are provided for under basket categories (HTS item No. 9029.10.80 in 1989 and TSUS item 711.98 in 1987 and 1988), and because the Commission received complete responses from all known importers of this product from Brazil, import data presented below are based on responses to Commission questionnaires. With regard to imports of all types of digital counters (electromechanical, mechanical, and electronic), for simplicity of presentation, data presented here are also based on responses to Commission questionnaires. Based on official import statistics, reported imports of digital counters account for 53 percent, by value, of total imports of digital counters from all sources in 1989.

Electromechanical digital counters.--Imports of electromechanical digital counters from Brazil increased consistently throughout the period of investigation. The overall increase from 1987 to 1989 was 86 percent in terms of units, and 66 percent in dollar value (table 17). Unit values of such imports fell overall. In terms of quantity, total imports of these products also increased, but at a slower rate; such imports were 58 percent higher in 1989 than in 1987. By contrast, in terms of value, these imports first rose in 1988, then fell back somewhat in 1989, for an overall climb of only 23 percent over the 3-year period. As with imports from Brazil, unit values fell overall.

All digital counters.--Trends in imports of all varieties of digital counters from Brazil were almost identical to those for electromechanical digital counters: specifically, a steady, strong increase, both in terms of quantity and value. Unit values of such imports declined overall, at a slightly greater rate than did those for imports of electromechanical digital counters. Digital counter imports from all sources increased in terms of quantity; in value terms, such imports experienced a different trend, with the 1989 total 11 percent higher than that of 1987, but reflecting a marked decline from 1988 levels.

Table 17  
 Digital counters: U.S. imports from Brazil and all other sources, by types,  
 1987-89

Item	1987	1988	1989
	Quantity (units)		
Electromechanical digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	***	***	***
All digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	2,067,832	2,327,231	2,328,851
	Value (1,000 dollars)		
Electromechanical digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	2,430	3,147	2,982
All digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Total.....	11,889	15,153	13,911
	Unit value 1/		
Electromechanical digital counters from--			
Brazil.....	\$***	\$***	\$***
All other sources.....	***	***	***
Average.....	***	***	***
All digital counters from--			
Brazil.....	***	***	***
All other sources.....	***	***	***
Average.....	5.75	6.51	5.97

1/ Computed from responses of firms providing both quantity and value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The long-term trend in imports of digital counters, according to the petitioner, has been away from dependence on Far Eastern suppliers such as Japan, towards imports from Latin American countries such as Brazil and Mexico.<sup>100</sup> In the late 1970s and early 1980s, imports from Japan were at a peak, but they have declined since then. Imports from other sources are generally from Japan and West Germany; \* \* \* are the largest importers from the latter source.

#### U.S. market penetration by imports

As the Commission received usable data from the four significant U.S. producers of electromechanical digital counters, reported production is believed to constitute virtually 100 percent, by quantity, of U.S. production of such merchandise during the period of investigation. Similarly, reported shipments of imports of electromechanical digital counters are substantially complete. With regard to all varieties of digital counters, reported shipments of imports constitute 71 percent, by value, of official import statistics for HTS item No. 9029.10.80 in 1989. The extent of coverage of U.S. shipments of digital counters represented by data submitted in response to Commission questionnaires is not known, because there is no public source of data on the size of the domestic digital counter market. As a result, data on the U.S. market penetration by imports of electromechanical digital counters are based on information submitted in response to Commission questionnaires.

Electromechanical digital counters.--U.S. market penetration by shipments of imports (in terms of quantity) of electromechanical digital counters from Brazil increased from \* \* \* percent in 1987 to \* \* \* percent in 1988, and continued its climb to \* \* \* percent in 1989 (table 18). In terms of value, this ratio also demonstrated a consistent increase, from \* \* \* percent in 1987 to \* \* \* percent in 1989.<sup>101</sup> In terms of quantity, U.S. producers lost market share in 1988, but regained it in 1989, ending up with a slightly lower share of the market than they had accounted for in 1987. On the other hand, in terms of value, such producers lost approximately 6 percentage points of market share over the 3-year period.

Electromechanical and mechanical digital counters.--When the markets for electromechanical and mechanical digital counters are viewed together, U.S. producers are seen to have lost approximately 4 percentage points of market share between 1987 and 1989, when quantity-based shares are considered (table 19). In terms of volume, imports of the subject merchandise from Brazil more than doubled their share of the market from 1987 to 1989. When value-based data are examined, U.S. producers lost market share as well, yielding \* \* \* percentage points from 1987 to 1989. Such producers consistently held over 80 percent of the market. The value-based market share of imports of electromechanical digital counters from Brazil increased slightly over the period of investigation.

<sup>100</sup> Transcript, pp. 27, 29. In referring to Mexico, ENM is apparently \* \* \*, \* \* \*. Conversation with \* \* \*.

<sup>101</sup> The lower value-based shares reflect the substantially lower unit values of shipments of imports from Brazil, when compared to domestic shipments.

Table 18  
Electromechanical digital counters: U.S. producers' shipments, U.S. shipments of imports from Brazil and all other sources, and apparent consumption, 1987-89

Item	1987	1988	1989
	Quantity (units)		
U.S. producers' shipments.....	866,655	***	***
Shipments of imports from--			
Brazil.....	***	***	***
All other countries 1/.....	***	***	***
Total.....	363,651	***	***
U.S. consumption.....	1,230,306	1,544,368	1,927,127
	As a share of the quantity of apparent consumption (percent)		
U.S. producers' shipments.....	70.4	***	***
Shipments of imports from--			
Brazil.....	***	***	***
All other countries 1/.....	***	***	***
Total imports.....	29.6	***	***
Total.....	100.0	100.0	100.0
	Value (1,000 dollars)		
U.S. producers' shipments.....	12,189	12,908	12,706
Shipments of imports from--			
Brazil.....	***	***	***
All other countries 1/.....	***	***	***
Total.....	2,245	3,066	3,484
U.S. consumption.....	14,434	15,974	16,190
	As a share of the value of apparent consumption (percent)		
U.S. producers' shipments.....	84.4	80.8	78.5
Shipments of imports from--			
Brazil.....	***	***	***
All other countries 1/.....	***	***	***
Total imports.....	15.6	19.2	21.5
Total.....	100.0	100.0	100.0

1/ Primarily Germany and Japan.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 19  
Electromechanical and mechanical digital counters: U.S. producers' shipments,  
U.S. shipments of imports, and apparent consumption, 1987-89

Item	1987	1988	1989
	Quantity (units)		
U.S. producers' shipments.....	***	***	***
Shipments of imports of electro- mechanical counters from Brazil..	***	***	***
Shipments of nonsubject imports 1/..	***	***	***
Subtotal.....	***	***	***
U.S. consumption.....	6,917,618	7,040,492	6,809,986
	As a share of the quantity of apparent consumption (percent)		
U.S. producers' shipments.....	***	***	***
Shipments of imports of electro- mechanical counters from Brazil..	***	***	***
Shipments of nonsubject imports.....	***	***	***
Total.....	100.0	100.0	100.0
	Value (1,000 dollars)		
U.S. producers' shipments.....	***	***	52,493
Shipments of imports of electro- mechanical counters from Brazil..	***	***	***
Shipments of nonsubject imports 1/..	***	***	***
Subtotal.....	***	***	10,684
U.S. consumption.....	65,836	67,389	63,177
	As a share of the value of apparent consumption (percent)		
U.S. producers' shipments.....	***	***	83.1
Shipments of imports of electro- mechanical counters from Brazil..	***	***	***
Shipments of nonsubject imports.....	***	***	***
Total.....	100.0	100.0	100.0

1/ Includes shipments of imports of electromechanical digital counters from countries other than Brazil, and shipments of imports of mechanical digital counters from all sources.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

All digital counters.--Because importers of all varieties of digital counters steadily increased their shipments, while U.S. producers decreased theirs overall, U.S. producers lost approximately 3 percentage points of

market share between 1987 and 1989 (table 20). The value of U.S. producers' shipments, however, increased markedly during the period; as a result, in value terms, their share of the overall digital counter market remained essentially the same. U.S. producers' market share, in value terms, exceeded 85 percent throughout the period.

Table 20

Digital counters: U.S. producers' shipments, U.S. shipments of imports, and apparent consumption, 1987-89

Item	1987	1988	1989
	Quantity (units)		
U.S. producers' shipments.....	***	***	***
Shipments of imports of electro- mechanical counters from Brazil..	***	***	***
Shipments of nonsubject imports 1/..	***	***	***
Subtotal.....	***	***	***
U.S. consumption.....	7,836,335	8,100,838	8,060,826
	As a share of the quantity of apparent consumption (percent)		
U.S. producers' shipments.....	***	***	***
Shipments of imports of electro- mechanical counters from Brazil...	***	***	***
Shipments of nonsubject imports.....	***	***	***
Total.....	100.0	100.0	100.0
	Value (1,000 dollars)		
U.S. producers' shipments.....	91,869	***	121,725
Shipments of imports of electro- mechanical counters from Brazil..	***	***	***
Shipments of non-subject imports 1/.	***	***	***
Subtotal.....	13,894	***	18,211
U.S. consumption.....	105,763	117,130	139,937
	As a share of the value of apparent consumption (percent)		
U.S. producers' shipments.....	86.9	***	87.0
Shipments of imports of electro- mechanical counters from Brazil...	***	***	***
Shipments of non-subject imports....	***	***	***
Total 2/.....	100.0	100.0	100.0

1/ Includes shipments of electromechanical digital counters from countries other than Brazil, and shipments of mechanical and electronic digital counters from all sources.

2/ Shares may not add because of rounding.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The share of the digital counter market accounted for by imports of electromechanical digital counters from Brazil increased from \* \* \* percent in 1987 to \* \* \* percent in 1989. Value-based shares, however, were consistently less than \* \* \* percent.

#### Prices of electromechanical digital counters

Questionnaire price data.--The Commission requested net U.S. selling prices, f.o.b. point of domestic shipment, for three representative digital counters. U.S. producers and importers were asked to report quarterly prices for the largest sale of each representative counter to original equipment manufacturers (OEMs) and to distributors.<sup>102</sup> Quarterly prices were requested for the period January 1987-December 1989. In addition, the quantity and value of total sales per quarter of each of the three representative products, by class of purchaser, were requested. The three digital counters for which price data were requested are identified below.

PRODUCT 1: Miniature electromechanical digital counter, 12 V DC (with or without diode), standard mounting configuration (panel, base, rear, or PC mount), 6-digit display, with count speed of 600CPM, pulse length of 50ms, continuously energized count coil, and with count life up to 10 million counts DC.

PRODUCT 2: Miniature electromechanical digital counter, 24 V DC (with or without diode), standard mounting configuration (panel, base, rear, or PC mount), 6-digit display, with count speed of 600CPM, pulse length of 50ms, continuously energized count coil, and with count life up to 10 million counts DC.

PRODUCT 3: Miniature electromechanical digital counter, 115 V AC 60 hz, standard mounting configuration (panel, base, rear, or PC mount), 6-digit display, with count speed of 600CPM, pulse length of 50ms, continuously energized count coil, and with count life up to 2 million counts AC.

Three domestic producers and one importer of the subject foreign products provided price data as requested, but not for each product, class of customer, or period.

Price trends.--Price trends for the subject digital counters are based on the quarterly, net, f.o.b. prices for the largest quarterly sale of each of the three representative products to each class of customer. These prices are presented on a company-by-company basis.

---

<sup>102</sup> Producers and importers agreed during the formulation of the questionnaire that the three selected digital counters were volume items, were substitutes for each other, and that they competed head-to-head in the market.

U.S. domestic electromechanical digital counters: sales to OEMs.--

Net f.o.b. prices of domestically produced digital counters sold to OEMs are presented company by company to show trends in prices in tables 21-23. Trend analysis based on weighted-average prices for all companies would be distorted by two factors. First, only two companies, ENM and \* \* \*, provided price data on the three representative products that spanned most or all of the 12 quarters covered by the investigation. Second, differences between companies in quantity discount policy, and the wide disparity in the size of each firm's largest quarterly sales add to the apparent quarterly price anomalies that appear in the weighted-average price series for the individual products. Limiting the trend analysis to the individual company data submitted by ENM and \* \* \* does allow an examination of price trends.

Rather than any clear trend, the price data reflect two characteristics of the digital counter market. First, lower prices generally are associated with larger quantity transactions. Second, the practice of negotiated prices or "what the traffic will bear" is apparent in sharply different prices for the same or lesser quantities sold to two different purchasers in adjacent quarters.

Based on a partial quarterly price series beginning in October-December 1987, the ENM selling price of product 1 reflects a \* \* \* trend over a period of seven quarters, although sharply \* \* \* quarterly prices were reported for two \* \* \* sales in the period January-June 1988 (table 21). A \* \* \* in price from a consistent quarterly price of \$\* \* \* each for widely varying quantities in January-September 1989 to \$\* \* \* in October-December 1989 reflects a \* \* \* price, although the transaction did involve a much larger quantity. Price data supplied by \* \* \* for product 1 reveals a \* \* \* in price of 8 percent from an average quarterly unit price of \$\* \* \* in 1987 to \$\* \* \* in 1989, a pattern not entirely explained by quantity differences. Larger quantity sales to the same customer account for the consistent low price that held at \$\* \* \* for six quarters then \* \* \* to \$\* \* \* at the end of the period.

Table 21

Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for digital counter Product 1 produced in the United States, by companies and by quarters, January 1987-December 1989

\* \* \* \* \*

ENM's price data for product 2 show an \* \* \* pattern over a span of 10 quarters, unexplained by differences in quantity purchased, except for a \* \* \* purchase of \* \* \* units in January-March 1988 at a premium price of \$\* \* \* each (table 22). During the period, excluding the one quarter when the price was \$\* \* \*, the price ranged from a \* \* \* of \$\* \* \* to a \* \* \* of \$\* \* \* per counter with no relationship to quantity discounts. In contrast, the price data for product 2 provided by \* \* \* again reflect quantity discounts. The unit price \* \* \* from a quarterly average of \$\* \* \* in 1987 to \$\* \* \* during the period October 1988-September 1989, then \* \* \* to \$\* \* \* in October-December 1989. Generally, the quarterly \* \* \* of \$\* \* \* reflect sales

roughly from \* \* \* to more than \* \* \* times the quantity sold at the highest price of \$\* \* \* per counter.

ENM price data for product 3 covered 9 quarters ranging from a \* \* \* of \$\* \* \* per counter to a \* \* \* of \$\* \* \* and reflected very \* \* \* quantity transactions, except for the last quarter of the subject period (table 23). In October-December 1989 an ENM sale of more than \* \* \* such digital counters was priced at \$\* \* \* per unit, although \* \* \* units sold for \$\* \* \* in April-June 1989. Quarterly price data from \* \* \*. In 1989, however, the price level \* \* \* from mid-period \* \* \* of \$\* \* \* and \$\* \* \* per unit to \$\* \* \*, at the same time that quarterly transaction quantities \* \* \* sharply.

Table 22

Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for digital counter Product 2 produced in the United States, by companies and by quarters, January 1987-December 1989

\* \* \* \* \*

Table 23

Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for digital counter Product 3 produced in the United States, by companies and by quarters, January 1987-December 1989

\* \* \* \* \*

U.S. domestic electromechanical digital counters: sales to distributors.--Only one domestic producer provided quarterly price data relative to sales to distributors. Veeder-Root submitted a complete series of prices for small-quantity sales of product 2 to this class of customer. Overall, the domestic price data show an initial \* \* \* in price in 1987, then an \* \* \* in price in 1988 and again in 1989 for purchases of similar quantities. A purchase of roughly \* \* \* digital counters was priced at \$\* \* \* in April-June 1987. A \* \* \*-unit purchase in October-December of that year was sold at \$\* \* \* each. In April-June 1988, the price for a transaction of the same quantity \* \* \* to \$\* \* \*, and in July-September 1989 the price \* \* \* further to \$\* \* \* each. Given the \* \* \* quantities involved in the Veeder-Root data and absent price data from the petitioner or any other market competitor, neither price trend analysis nor useful price comparisons are possible. Therefore, these data are not presented in tabular form.

Imports from Brazil: sales to OEMs.--Only Veeder-Root provided import price data. Quarterly prices of Veeder-Root for the largest sale of product 1 during the period reveal a \* \* \* trend through April-June 1988 (table 24). During that period, the unit price for quantities of \* \* \* pieces \* \* \* from \$\* \* \* to \$\* \* \*, a \* \* \* of \* \* \* percent. Except for a \* \* \* price in July-September 1989, the \* \* \* quarterly prices in the remainder of

the subject period reflect larger discounts for quantities that ranged from a \* \* \* of \* \* \* counters to a \* \* \* of \* \* \*.

Table 24

Electromechanical digital counters: Net f.o.b. sales prices for the largest sale per quarter to original equipment manufacturers for imports from Brazil, by products and by quarters, January 1987-December 1989

\* \* \* \* \*

Rather than a price trend, the Veeder-Root quarterly price series for product 2 reveals two different unit price levels in 1987, \$\* \* \* and \$\* \* \*, which reflect quantity differences that ranged from \* \* \* of \* \* \* to \* \* \* units to \* \* \* of \* \* \* to \* \* \*. In 1989, after a sharp first quarter \* \* \* in price for a smaller quantity sale than in the previous quarter, the quarterly price \* \* \* as did the quantity purchased each quarter, although the sales were at levels of \* \* \* counters or less.

Veeder-Root price data for product 3 reflect prices that generally \* \* \*. For sales of \* \* \* units, the price \* \* \* from \$\* \* \* per counter to \$\* \* \*. For \* \* \* sales in quantities that ranged from roughly \* \* \* to \* \* \* counters up to a \* \* \* of \* \* \* units, the prices ranged from a \* \* \* of \$\* \* \* to a \* \* \* of \$\* \* \* per counter for the largest quantity sale. No trend is apparent.

Imports from Brazil: sales to distributors.--Veeder-Root's quarterly price data for the 3 representative products show that sales varied widely from samples of as few as \* \* \* to quantities in the \* \* \*. Prices reflect the \* \* \* and the \* \* \*. No other pattern or price trend is apparent in the random mix of large and small quantity quarterly price data based on the largest sale. Absent any data on competing domestic prices, no price comparisons are possible, therefore, these data are not presented in tabular form.

Price comparisons.--Price comparisons between digital counters produced in the United States and competing digital counters imported from Brazil are based on the weighted-average net f.o.b. selling prices to OEMs of the largest sale to this class of customer during the period January 1987-December 1989. Tables 25-27 show the weighted-average prices and the margins of under/over-selling in dollars and in percent for sales of the three subject representative digital counters.

Based on questionnaire responses of four U.S. producers and one importer, the reported net U.S. f.o.b. selling price data resulted in comparisons for each of the three representative products and, with two exceptions, for each quarter for each product. The price comparisons indicate \* \* \* by the imported Brazilian digital counters in 27 of the 34 instances.

Price comparisons for product 1, 12-volt DC counter with six-digit display, show that the imported digital counters were priced \* \* \* the domestic product in \* \* \* of the \* \* \* quarters (table 25). The \* \* \* margins ranged from \$\* \* \* to \$\* \* \*, or from 2.6 to 64.6 percent. The imported

Brazilian digital counters were priced \* \* \* the domestic product in the first two quarters of the subject period and in the third quarter of 1989.

Table 25

Electromechanical digital counters: Margins of under/overselling 1/ based on comparisons made between net U.S. f.o.b. selling prices of Product 1 produced in the United States and of the same products imported from Brazil and sold to original equipment manufacturers, by quarters, January 1987-December 1989

Period	Weighted-average price		Margins of under/over-selling
	United States	Brazil	
*	*	*	*

Comparisons of domestic and import prices for product 2, 24-volt DC counter with six-digit display, show a pattern of \* \* \* by the imported counters from Brazil in \* \* \* of the \* \* \* quarters for which comparisons were possible (table 26). Margins of \* \* \* ranged from \$\* \* \* to \$\* \* \*, or from 4.5 to 45.8 percent. Three comparisons showed domestic counters priced \* \* \* the imported Brazilian products.

Table 26

Electromechanical digital counters: Margins of under/overselling 1/ based on comparisons made between net U.S. f.o.b. selling prices of Product 2 produced in the United States and of the same products imported from Brazil and sold to original equipment manufacturers, by quarters, January 1987-December 1989

Period	Weighted-average price		Margins of under/over-selling
	United States	Brazil	
*	*	*	*

Price comparisons for product 3, 115-volt AC counter with six-digit display, show that imported digital counters from Brazil \* \* \* the domestic counters in \* \* \* of the \* \* \* quarters by margins that ranged from \$\* \* \* to \$\* \* \*, or from 16.5 to 55.5 percent (table 27). The domestic product was priced \* \* \* the imported Brazilian product in one quarterly comparison.

Table 27

Electromechanical digital counters: Margins of under/overselling 1/ based on comparisons made between net U.S. f.o.b. selling prices of Product 3 produced in the United States and of the same products imported from Brazil and sold to original equipment manufacturers, by quarters, January 1987-December 1989

Period	Weighted-average price		Margins of under/overselling
	United States	Brazil	
*	*	*	*

Lost sales and lost revenues

In its petition, ENM listed 18 accounts allegedly lost to import competition, although it did not identify Brazil categorically as the source of the competing imported digital counters.<sup>103</sup> The listed firms were characterized by ENM as "potential customers that the petitioner quoted prices to in an effort to make sales".<sup>104</sup> ENM also provided copies of written quotes made to eight of the listed firms. Copies of requotes made by ENM at lower prices were included in some instances. ENM listed the same eight allegations in its questionnaire response. Based on "estimated yearly usage," the aggregate sales volume involved in the 18 alleged lost sales opportunities totaled roughly \* \* \* digital counters. In value terms, the 18 accounts listed represented minimum lost sales revenues amounting to \$\* \* \*.<sup>105</sup> The Commission staff investigated each of the alleged lost sales opportunities for which ENM provided price quote data. For these eight accounts, the alleged lost digital counter sales volume amounted to an estimated \* \* \* units and \$\* \* \* in revenue. ENM did not list any allegations of lost revenues.

\* \* \*.--ENM named \* \* \*, located in \* \* \*, as an alleged lost potential account whose estimated annual digital counter requirement would have been \* \* \* units. The ENM quote of \$\* \* \* matched the alleged offer price for the competing digital counters imported from Brazil. Nevertheless, according to ENM, \* \* \* opted for the imported product.

\* \* \*, purchasing manager for the firm, confirmed that \* \* \*, a manufacturer of \* \* \*, had purchased the imported 12-volt DC counters for its \* \* \*, but he believed they were \* \* \*. \* \* \* was the import source. According to \* \* \*, the alleged annual quantity involved, \* \* \* units in \* \* \*, the ENM matching quote of \$\* \* \* each in \* \* \*, and the importer's price, \$\* \* \* per counter, were accurate numbers.<sup>106</sup> \* \* \* said that, given

<sup>103</sup> Petition, exhibit 16.

<sup>104</sup> Petition, p. 27.

<sup>105</sup> This aggregate figure was calculated based on the respective estimated annual quantities involved per account and the associated import prices at which ENM allegedly lost those sales opportunities.

<sup>106</sup> \* \* \* provided \* \* \* invoices that confirm the price of \$\* \* \* each for digital counters purchased in \* \* \* and a price of \$\* \* \* for a purchase in \* \* \*.

the same price quote for both the domestic and the imported counters, he sourced from \* \* \* because that firm was \* \* \* and he \* \* \*. He checked the imported product from \* \* \* and found that it was indeed \* \* \*. \* \* \*'s supply requirements vary from year to year, reflecting the vagaries of the market. The \* \* \* business, \* \* \* said, is up and down depending on the \* \* \* of the moment. Some games catch on, others fail. In good times, \* \* \* will sell \* \* \* per week; in poor times, the volume will be as low as \* \* \* per week.

\* \* \* had tested the imported digital counter from \* \* \* before the decision to purchase, and it had qualified. The model is a standard digital counter used to \* \* \*. \* \* \* has been using \* \* \* as a source for 3 to 4 years and has had no problems with the imported product. Based on average volume requirements in 1988, this account amounted to roughly \$\* \* \*.

\* \* \*.--ENM identified \* \* \* as a lost account for an estimated annual volume of \* \* \* digital counters in \* \* \*. \* \* \* allegedly chose \* \* \* digital counters offered at \$\* \* \* each rather than ENM's competing product, quoted at \$\* \* \* for one \* \* \* and \$\* \* \* for another \* \* \*. \* \* \*, executive of \* \* \*, provided information concerning this allegation.

\* \* \* makes \* \* \* in which the digital counters are used. The annual purchases, however, are much less than the ENM figure, probably closer to \* \* \* units. \* \* \*'s former buyer, no longer with the company, was prone to exaggerate in an effort to get the best price from a vendor, \* \* \* noted. \* \* \* checked the firm's current records and confirmed that the digital counters they buy are imported from \* \* \* by \* \* \* but were purchased from a distributor, \* \* \*. \* \* \* data on purchases of the subject digital counters are not readily available. \* \* \* did provide records that show four purchases of the imported \* \* \* for a total of \* \* \* units bought since \* \* \*. The unit price was \$\* \* \* each for three purchases of \* \* \* units or less, and \$\* \* \* each for the most recent purchase of \* \* \* counters in \* \* \*.

\* \* \*.--\* \* \*, a manufacturer of \* \* \*, was named by ENM as a lost account for an estimated annual volume of over \* \* \* digital counters. Allegedly, \* \* \* chose imported digital counters from \* \* \* offered at a price of \$\* \* \* each in competition with two ENM \* \* \*--one, a \* \* \* and the other, a \* \* \*--quoted first in \* \* \* at \$\* \* \* and \$\* \* \* each, then requoted at \$\* \* \* and \$\* \* \* respectively in \* \* \*.<sup>107</sup>

\* \* \*, executive of the firm, confirmed the \* \* \* counter annual supply requirement in \* \* \*, but stated that the digital counters his firm purchased were not \* \* \*, but were \* \* \*. The price of the \* \* \* product was \$\* \* \* per unit. \* \* \* describes the digital counter they buy as a "cheap, impulse counter with a coil and a ratchet." At one time, he added, they were looking for something better and had asked for quotes from several sources. This was the origin of the competing price quotes. It appears that the requote by ENM was made after the decision had already been made by \* \* \* to buy from \* \* \*.

\* \* \*.--ENM cited \* \* \* as a lost account for an estimated annual volume of \* \* \* digital counters in \* \* \*. \* \* \* allegedly opted to buy \* \* \*

---

<sup>107</sup> ENM stipulated a minimum release of \* \* \* per shipment against a \* \* \*.

offered at \$\* \* \* each rather than ENM counters quoted at \$\* \* \* in \* \* \* and requoted at \$\* \* \* in \* \* \*. Six different voltage models of the ENM \* \* \* were included on an annual usage basis, all quoted at the same price. \* \* \* is a \* \* \* serving the nationwide market from two locations, one in \* \* \* and the other in \* \* \*.

\* \* \*, the buyer, confirmed the quantity estimated by ENM and the price quotes as accurate. Noting that ENM did lose the business, \* \* \* explained that one of \* \* \*'s customers, a subcontractor for a manufacturer of \* \* \*, did not like the ENM counters. They counted too slowly and also missed counts. Moreover, the ENM counters have a \* \* \*. The competing \* \* \* digital counter \* \* \* has a removable mount that can be mounted in different ways depending on the usage. \* \* \* bought the \* \* \* digital counters at \$\* \* \* each. \* \* \* explained that several years ago the \* \* \* digital counters, made in \* \* \*, were priced at \$\* \* \* each. As the U.S. dollar cheapened in value relative to the \* \* \*, the imported \* \* \* counters became more expensive and this precipitated a move by the \* \* \* company to \* \* \*.<sup>108</sup> \* \* \* places orders every \* \* \* months and recently increased the size of the order for two reasons. There have been delays in shipments from \* \* \* and there has also been a lot of competition among distributors. \* \* \* said that the move to increase the order size was designed to stock up heavily and control supply from \* \* \* coming into the U.S. market. \* \* \* sells to \* \* \*. The average order size from \* \* \*'s customers is \* \* \* pieces.

\* \* \*.--Another instance of an alleged lost sales opportunity for ENM involved \* \* \*. \* \* \* allegedly decided in favor of two imported digital counter models from \* \* \* offered at a price of \$\* \* \* each for an estimated annual volume of \* \* \* counters compared to higher quoted prices for two competing ENM models.<sup>109</sup> \* \* \*, purchasing manager, provided information regarding the alleged sourcing situation.

\* \* \* is a manufacturer of "\* \* \*." \* \* \* did receive quotes from ENM based on an estimated volume of \* \* \* units. The first quote in \* \* \* was \$\* \* \* each for a model in the E6B series; a requote of \$\* \* \* was made in \* \* \*. ENM quoted \$\* \* \* each in \* \* \* for an \* \* \* model that \* \* \* later changed for a \* \* \* model. \* \* \* stated that he had tested the ENM model and found it to be satisfactory but he also emphasized that ENM had charged \* \* \* a high price for the test samples. Although the prices were quoted on a quantity of \* \* \* pieces, actual purchases were closer to \* \* \*. \* \* \*, however, did not receive quotes from any importers of \* \* \* digital counters. The purchases, \* \* \* at a time, roughly every \* \* \*, were from \* \* \* for digital counters assembled in \* \* \*. At that time, \* \* \*'s price to \* \* \* was \$\* \* \* per unit; currently, the price is \$\* \* \* each. Ultimately, the imported counters were priced higher than the \* \* \* requote by ENM.

\* \* \*.--ENM named \* \* \*, a distributor located in \* \* \*, in an alleged lost sales opportunity for an estimated annual usage volume of \* \* \* units of a \* \* \* model of the ENM \* \* \* digital counters. \* \* \* was alleged to have

<sup>108</sup> A recent order by \* \* \* from \* \* \* was sourced from \* \* \*, \* \* \* noted. This was a single exception to the pattern of shipments that have all been from \* \* \* in the past year or two.

<sup>109</sup> One model was an \* \* \*; the other was an \* \* \*. Both were basemount electromechanical digital counters.

opted in favor of imported \* \* \* digital counters offered at a price of \$\* \* \* each, rather than the ENM product quoted at \$\* \* \* each. \* \* \*, purchasing manager, responded to the Commission inquiry.

\* \* \* had bought from ENM until the price increased to above \$\* \* \* per counter. At that time, \* \* \* sought an alternative source for a lower price. \* \* \* said that his company was facing lower priced competition from a distributor, \* \* \*. \* \* \*, \* \* \* learned in \* \* \*, was buying a competing imported substitute counter for \$\* \* \* each. When ENM raised its price to "\$\* \* \*," \* \* \* began to shop. He did not, however, buy imported \* \* \* digital counters, but purchased a domestic counter from \* \* \*, at a price of \$\* \* \* each. The \* \* \* model has a \* \* \*, said \* \* \*, compared to ENM's \* \* \*. Other than that difference, the specifications are the same for both counters.

\* \* \*.--ENM identified \* \* \* as another instance of a sales opportunity allegedly lost to imported digital counters from \* \* \*. This potential account involved an estimated annual volume of \* \* \* pieces in \* \* \*. ENM's \* \* \* quote of \$\* \* \* each for an \* \* \* model was allegedly rejected in favor of a competing offer price of \$\* \* \* each for the substitute \* \* \* product.

\* \* \*, executive of the firm, stated that the quantities and prices, as alleged by ENM, were essentially correct. He explained that his firm \* \* \* the digital counters to a \* \* \*. That is the base product that \* \* \* makes and sells with varied applications for many different \* \* \*. The uses for these \* \* \* are mostly for \* \* \*. Although the firm uses digital counters with many different voltages, roughly \* \* \* percent of the volume is a \* \* \* model.

ENM initially was a source for samples. Advised by an ENM salesperson that a \* \* \* digital counter would work for the intended usage, \* \* \* bought a number of \* \* \* ENM counters. Some worked and some did not. The \* \* \* ENM counters were being rejected by \* \* \*'s customers. Ultimately, ENM admitted that \* \* \* should have had the \* \* \* model. The problem was that, at the time of the initial order, the correct product was unavailable. This experience stimulated \* \* \* to seek another source. He placed a sample spot order for \* \* \* pieces with \* \* \*. The results were good and \* \* \* switched his digital counter supply requirements to \* \* \* digital counters imported from \* \* \*. Currently, the price is \$\* \* \*, but may have been \$\* \* \* or \$\* \* \* in 1987. In terms of total revenue, this lost sales opportunity amounted to \$\* \* \* annually.

\* \* \*.--ENM named \* \* \* as another example of an alleged lost sale in \* \* \*. This firm's annual supply requirement amounted to \* \* \* units. Based on this large quantity, ENM quoted a price of \$\* \* \* each for two ENM \* \* \* models, one a \* \* \* and the other a \* \* \* electromechanical digital counter, but allegedly lost the sale to a lower offer price for competing products imported from Brazil. \* \* \*, purchasing agent for \* \* \*, confirmed the alleged quantity requirement as accurate. He knew of \* \* \* as sources of imported \* \* \* digital counters. Formerly, he had purchased most of the needed volume from \* \* \*, but had problems with that source meeting its delivery dates. At that time, he began to dual-source. Ultimately, he switched sources to \* \* \*, his current supplier.

\*\*\* listed a single example of an alleged lost sale to imported digital counters from \*\*\*, naming \*\*\* as the purchasing firm. The lost sales opportunity involved an anticipated annual quantity of \*\*\* electromechanical digital counters. The \*\*\* model offered at \$\*\*\* each by \*\*\* was allegedly rejected in favor of a \*\*\* substitute quoted at \$\*\*\* each.

\*\*\*, buyer, affirmed that in \*\*\* the firm's annual usage of such a model probably was at the \*\*\*-unit level and that \*\*\* had been the source at that time. Subsequently, however, the firm's engineers in \*\*\* decided that a different model would be used. The counter was purchased in \*\*\*, combined there with an \*\*\*, then shipped to \*\*\* for use as a subassembly in a \*\*\* produced there by \*\*\*. The quantity used declined during the past several years to a level of roughly \*\*\* units per year. Three firms' products are qualified, specifically the digital counters of \*\*\*. According to \*\*\*, the three digital counters are close substitutes for each other. During the last several years, the entire volume requirement has been going to \*\*\*, except in \*\*\*, when \*\*\* was used as a supplemental source. \*\*\* checked the firm's records of purchases and confirmed that the domestic prices were as follows: \*\*\*--price quotes were higher from \*\*\* and from \*\*\*, and lower from \*\*\*.<sup>110</sup> In \*\*\*, the respective prices were \*\*\* and \*\*\*. \*\*\* split the supply requirement for \*\*\* to \*\*\* pieces per year between \*\*\* and \*\*\* during the past \*\*\* months. \*\*\* noted that \*\*\* has indeed lost its former major source position with \*\*\*, and that he is only ordering small, fill-in quantities at high prices from \*\*\*. Price is the major consideration, \*\*\* noted, although quality and availability are also important factors to \*\*\*. Currently, \*\*\* is negotiating with \*\*\* for a 2-year supply of a model being designed specially for \*\*\*, whose engineers are in the process of qualifying the product. \*\*\*'s most recent price quote (\*\*\*) is based on a 2-year contract for a minimum of \*\*\* pieces per year, compared with a price of \$\*\*\* for a 1-year contract.

ENM submitted seven additional allegations of lost sales in its post-conference brief. These instances involved seven different firms. ENM listed the estimated \*\*\* digital counter prices in six of the seven allegations but did not provide quantity estimates or specify the time period of the alleged lost sales opportunities. The Commission staff investigated each of the allegations.

\*\*\*--\*\*\* was identified as allegedly purchasing digital counters from \*\*\* at an estimated price of \$\*\*\* each rather than ENM counters at an unspecified higher price. \*\*\*, buyer for \*\*\*, explained that his firm was buying \*\*\* digital counters from a \*\*\* distributor, \*\*\*. The price was \$\*\*\* each and the quantity roughly \*\*\* per year. Only \*\*\* and \*\*\* digital counters have been qualified by \*\*\*. Although ENM, as well as \*\*\*, has quoted higher prices, \*\*\* has not tried to qualify the ENM counters. The \*\*\* and the \*\*\* digital counters are "equal in quality", said \*\*\*, so price becomes the key factor in his sourcing decision. \*\*\* manufactures \*\*\* and uses as many as six digital counters per machine to check various functions.

---

<sup>110</sup> \*\*\*'s digital counters are exclusively imported from \*\*\*; the firm indicated in its questionnaire response that it has no domestic production.

\* \* \*.--\* \* \*, a \* \* \* distributor that sells nationwide, was cited by ENM in another lost sales allegation. ENM listed an estimated \* \* \* selling price of \$\* \* \* per counter. \* \* \*, purchasing manager, stated that ENM had quoted the price correctly, but that the competition to supply his firm with counters was between \* \* \* and \* \* \*. In \* \* \* the firm bought through a distributor at a price of \$\* \* \* each. In \* \* \*, \* \* \* switched to direct purchase from \* \* \* at a price of \$\* \* \* for the \* \* \* counter in quantities of \* \* \* to \* \* \* units against a blanket order of \* \* \* digital counters. \* \* \* then made a quote of \$\* \* \* and \* \* \* switched to \* \* \*. In \* \* \*, \* \* \* offered a price of \$\* \* \* and during the period \* \* \*, \* \* \* purchased \* \* \* counters imported from \* \* \*. At that point, lack of availability from \* \* \* caused \* \* \* to switch back to sourcing from \* \* \* at \$\* \* \* per counter.<sup>111</sup> The firm's annual requirement never exceeded \* \* \* digital counters.

\* \* \*.--\* \* \*, a \* \* \* manufacturer of \* \* \*, was cited by ENM in another alleged instance of a lost sales opportunity to imported \* \* \* digital counters offered at an estimated price of \$\* \* \* each. \* \* \*, buyer, recalled that he had purchased \* \* \* digital counters imported from \* \* \* several years ago at a price of \$\* \* \* compared to ENM's quote of \$\* \* \*. Because of long lead times (\* \* \*), he now buys a more expensive imported \* \* \* digital counter for \$\* \* \* each through a distributor, \* \* \*.<sup>112</sup> \* \* \* estimated the firm's annual supply requirement at roughly \* \* \* digital counters, for each \* \* \* produced by the plant.

\* \* \*.--Another ENM lost sales allegation identified \* \* \*, an \* \* \* firm that manufactures \* \* \*. \* \* \*, executive of the firm, explained that his company switched to an \* \* \* several years ago. He did not know the facts concerning purchases of digital counters prior to the changeover. The buyer involved is no longer with the firm.

\* \* \*.--In yet another allegation, ENM named \* \* \*, a manufacturer of \* \* \*. \* \* \* allegedly opted for imported \* \* \* digital counters offered at a price of \$\* \* \* rather than the competing ENM product. \* \* \*, buyer, provided the facts concerning his sourcing decision. \* \* \* installs \* \* \* to \* \* \* digital counters per year in its \* \* \*, two per \* \* \* and 1 to 3 in each \* \* \*. \* \* \* confirmed that in \* \* \*, ENM quoted a price of \$\* \* \* against a price of \$\* \* \* from \* \* \*. \* \* \* bought the \* \* \* digital counters. In \* \* \*, \* \* \* came in with an offer price of \$\* \* \* based on a 2-year sole source agreement and took the account from \* \* \*. \* \* \* stated that there has been growth in the firm's volume and that he expects "considerable growth in the \* \* \* market in the next few years" and, in tandem, the firm's annual requirements for digital counters.

\* \* \*.--\* \* \* was cited as the firm involved in another instance of a sales opportunity lost to imported electromechanical digital counters from \* \* \*. \* \* \*, a manufacturer of \* \* \*, is located in \* \* \*. \* \* \*, purchasing agent for the firm, explained that the firm uses 1 digital counter

<sup>111</sup> \* \* \* complained that calls to \* \* \* field salesmen concerning delayed shipments involved a three-day wait for a response, followed by excuse after excuse. Consequently, he turned to \* \* \*, paying the premium for dependable delivery.

<sup>112</sup> The \* \* \* manufacturer of these \* \* \* digital counters is \* \* \*.

per machine and annually purchases \* \* \* to \* \* \* counters. \* \* \* buys from a distributor, \* \* \*, and pays \$\* \* \* to \$\* \* \* per counter, depending on the quantity ordered. The digital counters the firm uses are \* \* \* models. There is no manufacturer name on the counter, only the name " \* \* \* " stamped into the plastic case.

\* \* \*.--ENM named \* \* \* as another example of a sales opportunity lost to imported digital counters from \* \* \*. \* \* \*, purchasing manager, provided the facts concerning the allegation. \* \* \* is \* \* \*. Its products include \* \* \*. The company has a policy of dual-sourcing if at all possible. \* \* \* does not recall a quote from ENM. For \* \* \*, the firm signed a letter of intent with its two sources, \* \* \* and \* \* \*, for a total of \* \* \* totalizers. The required supply was to be split roughly between the two sources. \* \* \*'s use over \* \* \* months in \* \* \* amounted to over \* \* \* units. In \* \* \*, \* \* \* paid \$\* \* \* each for digital counters. In \* \* \*, approximately \* \* \* to \* \* \* pieces were split between \* \* \* and \* \* \* at a price of \$\* \* \* each. For the \* \* \* supply requirement, \* \* \* and \* \* \* both are selling to \* \* \* at \$\* \* \* per unit. The digital counters are equal in quality, but \* \* \* uses \* \* \* for one use and \* \* \* for another. \* \* \* noted that there is a big upturn in \* \* \* demand that pulls digital counter demand along with it.

#### Exchange rates

Quarterly data reported by the International Monetary Fund indicate that during the period January 1987 through December 1989 the value of the Brazilian cruzado depreciated sharply by 99.7 percent against the U.S. dollar (table 28).<sup>113</sup> Adjusted for movements in producer price indices in the United States and Brazil, the real value of the Brazilian currency depreciated irregularly through September 1987, before achieving an overall real appreciation of 49.8 percent as of the fourth quarter of 1989 relative to January-March 1987 levels.

---

<sup>113</sup> International Financial Statistics, March 1990.

Table 28

Exchange rates: 1/ Nominal and real exchange rates of the Brazilian cruzado, and producer price indexes in the United States and Brazil, 2/ by quarters, January 1987-December 1989

Period	U.S. producer price index	Brazilian producer price index	Nominal- exchange- rate index	Real- exchange- rate index 3/
<b>1987:</b>				
January-March.....	100.0	100.0	100.0	100.0
April-June.....	101.6	178.9	58.2	102.5
July-September.....	102.8	258.3	38.5	96.9
October-December....	103.2	354.1	30.4	104.2
<b>1988:</b>				
January-March.....	103.8	572.2	19.8	109.4
April-June.....	105.6	987.3	12.0	112.5
July-September.....	107.1	1,819.9	6.8	114.9
October-December....	107.6	3,725.7	3.4	117.7
<b>1989:</b>				
January-March.....	109.9	6,968.9	1.9	119.4
April-June.....	111.8	8,997.0	1.6	127.6
July-September.....	111.3	21,160.1	0.7	135.8
October-December....	111.8	61,220.2	0.3	149.8

1/ Exchange rates expressed in U.S. dollars per Brazilian cruzado.

2/ Producer price indexes--intended to measure final product prices--are based on average quarterly indexes presented in line 63 of the International Financial Statistics.

3/ The real exchange rate is derived from the nominal rate adjusted for relative movements in producer prices in the United States and Brazil. Producer prices in the United States increased 11.8 percent between January 1987 and December 1989 compared to an increase in Brazilian prices in the same period by a factor of 612.

Note.--January-March 1987=100.

Source: International Monetary Fund, International Financial Statistics, March 1990.



APPENDIX A

FEDERAL REGISTER NOTICES

Commission must complete a preliminary antidumping duty investigation in 45 days, or in this case by April 13, 1990.

For further information concerning the conduct of this investigation and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and B (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

**EFFECTIVE DATE:** February 27, 1990.

**FOR FURTHER INFORMATION CONTACT:** Jonathan Seiger (202-252-1177), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

**SUPPLEMENTARY INFORMATION:**

**Background.**—This investigation is being instituted in response to a petition filed on February 27, 1990, by EMN Company, Chicago, IL.

**Participation in the investigation.**—Persons wishing to participate in the investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than seven (7) days after publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

**Public service list.**—Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with § 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each public document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the public service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

**Limited disclosure of business proprietary information under a protective order and business proprietary information service list.**—

Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)), the Secretary will make available business proprietary information gathered in this preliminary investigation to authorized applicants under a protective order, provided that the application be made not later than seven (7) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

**Conference.**—The Commission's Director of Operations has scheduled a conference in connection with this investigation for 9:30 a.m. on March 20, 1990, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Jonathan Seiger (202-252-1177) not later than March 15, 1990, to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

**Written submissions.**—Any person may submit to the Commission on or before March 22, 1990, a written brief containing information and arguments pertinent to the subject matter of the investigation, as provided in § 207.15 of the Commission's rules (19 CFR 207.15). A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary of the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7).

[Investigation No. 731-TA-453  
(Preliminary)]

**Electromechanical Digital Counters  
From Brazil**

**AGENCY:** United States International Trade Commission.

**ACTION:** Institution of a preliminary antidumping duty investigation and scheduling of a conference to be held in connection with the investigation.

**SUMMARY:** The Commission hereby gives notice of the institution of preliminary antidumping duty investigation No. 731-TA-453 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil of electromechanical digital counters,<sup>1</sup> provided for in subheading 9029.10.80 of the Harmonized Tariff Schedule of the United States (previously reported under item 711.98 of the former Tariff Schedules of the United States), that are alleged to be sold at less than fair value. As provided in section 733(a), the

<sup>1</sup> For purposes of this investigation, electromechanical digital counters are defined as devices or instruments for summing, either directly or through inference, and indicating a total number of units of any kind (items, events, pulses, length, etc.), whether or not resettable, wherein the units to be counted are detected by electrical means, and the count is displayed by rotating numbers on wheels.

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their written brief, and may also file additional written comments on such information no later than March 28, 1990. Such additional comments must be limited to comments on business proprietary information received in or after the written briefs.

**Authority.**—This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

By order of the Commission.

Issued: March 1, 1990.

**Kenneth R. Mason,**  
*Secretary.*

[FR Doc. 90-5197 Filed 3-6-90; 8:45 am]

BILLING CODE 7020-02-01

---

**(A-351-805)****Initiation of Antidumping Duty Investigation; Electromechanical Digital Counters From Brazil****AGENCY:** Import Administration, International Trade Administration, Commerce.**ACTION:** Notice.

**SUMMARY:** On the basis of a petition filed in proper form with the U.S. Department of Commerce (the Department), we are initiating an antidumping duty investigation to determine whether imports of electromechanical digital counters (EMDC's) from Brazil are being, or are likely to be, sold in the United States at less than fair value. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of EMDC's from Brazil are materially injuring, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before April 13, 1990. If that determination is affirmative, we will make a preliminary determination on or before August 6, 1990.

**EFFECTIVE DATE:** March 28, 1990.

**FOR FURTHER INFORMATION CONTACT:** James P. Maeder, Jr. or Mary S. Clapp, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-4929 or (202) 377-3965, respectively.

**SUPPLEMENTARY INFORMATION:****The Petition**

On February 27, 1990, we received a petition filed in proper form by ENM Company. In compliance with the filing

requirements of the Department's regulations (19 CFR 353.12(1989)), petitioner alleges that imports of EMDC's from Brazil are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry. Petitioner also alleges that critical circumstances exist with respect to imports of EMDC's from Brazil.

Petitioner has stated that it has standing to file the petition because it is an interested party, as defined under section 771(9)(C) of the Act, and because it has filed the petition on behalf of the U.S. industry producing the product that is subject to this investigation. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, please file written notification with the Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements regarding the filing of such requests are contained in section 353.14 of the Department's regulations.

**United States Price and Foreign Market Value**

Petitioner's estimates of United States Price (USP) for EMDC's are based on (1) an export price quoted by Veeder-Rood do Brasil (Veeder-Rood), (2) pricing information obtained from U.S. customers, and (3) an average import price calculated from IM-146 import statistics.

Petitioner's estimate of Foreign Market Value (FMV) for EMDC's is based on constructed value. Constructed value is based on petitioner's cost of manufacture adjusted for known differences between Brazilian and U.S. costs. Petitioner added the statutory eight percent profit minimum, pursuant to section 773(e) of the Act, to the Brazilian manufacturer's estimated costs.

We have accepted as the basis for the LTFV allegation petitioner's comparison of United States price (based on Veeder-Rood's export price quote) with FMV. This methodology results in estimated dumping margins of 92.27 percent to 141.71 percent. We have rejected the LTFV allegation using the U.S. pricing information obtained from U.S.

customers because this information is more than two years old. We have also rejected the LTFV allegation using the average import price calculated from IM-146 import statistics because these statistics were derived from an HTS basket category which includes a wide variety of other types of counters, tachometers, odometers, etc., which are not covered by the petition.

#### Initiation of Investigation

Under section 732(c) of the Act, the Department must determine, within 20 days after a petition is filed, whether the petition sets forth the allegations necessary for the initiation of an antidumping duty investigation, and whether the petition contains information reasonably available to the petitioner supporting the allegations.

We have examined the petition on EMDC's from Brazil and found that the petition meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether imports of EMDC's from Brazil are being, or are likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination by August 6, 1990.

#### Scope of Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules were fully converted to the Harmonized Tariff Schedule (HTS), as provided for in section 1201 *et seq.* of the Omnibus Trade and Competitiveness Act of 1988. All merchandise entered or withdrawn from warehouse for consumption on or after this date will be classified solely according to the appropriate HTS subheadings. The HTS subheadings are provided for convenience and U.S. Customs Service purposes. The written description remains dispositive as to the scope of the product coverage.

Imports covered by this investigation are shipments of EMDC's from Brazil. EMDC's are defined as devices or instruments for summing, either directly or through inference, and indicating a total number of units of any kind (items, events, pulses, length, etc.), whether or not resettable, wherein the units to be counted are detected by electrical means, and the count is displayed by rotating numbers on wheels. EMDC's are currently classifiable under HTS subheading 9029.10.8000. The scope of

this investigation does not include mechanical counters or electronic counters (*i.e.*, light emitting diode counters (LEDC) and light crystal display counters (LCDC), etc.).

#### ITC Notification

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all nonprivileged and nonproprietary information. We will allow the ITC access to all privileged and business proprietary information in the Department's files, provided the ITC confirms in writing that it will not disclose such information either publicly or under administrative protective order without the written consent of the Deputy Assistant Secretary for Investigations.

#### Preliminary Determination by ITC

The ITC will determine by April 13, 1990, whether there is a reasonable indication that imports of EMDC's from Brazil are materially injuring, or threaten material injury to, a U.S. industry. If its determination is negative, the investigation will be terminated; otherwise, the investigation will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act.

Dated: March 19, 1990

Eric I. Garfinkel

Assistant Secretary for Import  
Administration

IFR Doc 90-6757 Filed 3-23-90 8:45 am

BILLING CODE 3510-08-0



APPENDIX B

LIST OF PARTICIPANTS IN THE PUBLIC CONFERENCE

CALENDAR OF PUBLIC CONFERENCE

Investigation No. 731-TA-453 (Preliminary)

ELECTROMECHANICAL DIGITAL COUNTERS FROM BRAZIL

Those listed below appeared at the United States International Trade Commission's conference that was held in connection with the subject investigation on March 20, 1990, in the Hearing Room of the USITC Building, 500 E Street, S.W., Washington, DC.

In support of the imposition of antidumping duties

ENM Company, Chicago, IL

Anup Manchanda, Assistant to the President  
Tom Howland, OEM Sales Engineer

In opposition to the imposition of antidumping duties

Cameron & Hornbostel - Counsel  
Washington, D.C.

on behalf of

Veeder-Root Company, Simsbury, CT

Alec B. Dawson, Senior Vice President

William K. Ince )--OF COUNSEL  
Michele C. Sherman )--OF COUNSEL

APPENDIX C

U.S. INDUSTRY DATA EXCLUDING THE VEEDER-ROOT COMPANY

Table C-1

Digital counters: U.S. capacity, production, and capacity utilization, by products, 1987-89

Item	1987	1988	1989
*	*	*	*

Table C-2

Digital counters: Shipments of U.S. producers, by types and by products, 1987-89 1/

Item	1987	1988	1989
*	*	*	*

Table C-3

Digital counters: U.S. producers' end-of-period inventories, by products, as of December 31, 1987-89

Item	1987	1988	1989
*	*	*	*

Table C-4

Total establishment employment and average number of production and related workers producing electromechanical digital counters and all digital counters, hours worked, wages and total compensation paid to such employees, and labor productivity, hourly compensation, and unit labor production costs, 1987-89

Item	1987	1988	1989
*	*	*	*

APPENDIX D

COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF IMPORTS  
OF ELECTROMECHANICAL DIGITAL COUNTERS FROM BRAZIL  
ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL,  
OR THE SCALE OF CAPITAL INVESTMENTS

\* \* \* \* \*