

# Reversing Protectionism: A First Look at Product-level Trade Data from Smoot-Hawley to the GATT\*

## Supplementary Online Appendix

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November 21, 2024

In this supplementary appendix, we expand on the information about the data set contained in the Data Appendix of “Reversing Protectionism: A First Look at Product-level Trade Data from Smoot-Hawley to the GATT (Section 8).” We start by presenting an example of a product across different classification systems in different years. This provides context about our data sources and the information we obtain from each source. We further discuss the digitization and merging processes we used to create our final data set. Finally, we discuss some products whose tariffs are created by formula instead of being individually negotiated and how we deal with them in our data.

## 1 An Example: *Rye* from 1930 to 2024

In order to more accurately describe our data sources and demonstrate the evolution of the product classification code system across systems and over time, we pick a representative product *Rye*, and present how it is described in various historical documents. Smoot-Hawley marks the beginning of our sample period. At that time *Rye* was included in Paragraph number 728 as shown in Figure 1. The rate for *Rye* was 15 cents per bushel of fifty-six pounds. The same product was assigned Schedule A code 190.23 in 1930 in Figure 2.

An examination of the 1946 Schedule A, as illustrated in Figure 3, reveals a reduction in the tariff applicable to *Rye* from 15 cents to 12 cents per bushel. In addition to the tariff

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\*The views expressed in this paper are strictly those of the authors and do not represent the opinions of the U.S. International Trade Commission or any of its Commissioners.

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reduction, this figure shows three other features. First, the Schedule A code underwent a change from 109.23 to 1044000. This demonstrates one of the primary challenges in constructing panel data in this context: that many product codes change over time. We discuss this in Section 8.2.2. Second, the original Smoot-Hawley rate is documented in column 1, which is analogous to the “Column 2” in the TSUSA system and the Harmonized System (HS). It is, however, important to point out that this rate does not always equal the original Smoot-Hawley rate due to the presence of the non-trade-agreement provisions discussed Section 8.3.4, such as Section 336. Finally, the designation “Can.” in the second column of the table is an abbreviation for Canada. It indicates that this tariff reduction is the result of the bilateral trade agreement between the U.S. and Canada. The negotiation of bilateral trade agreements constituted a significant instrument employed by the U.S. to reduce tariff rates prior to the establishment of the GATT, and by digitizing these documents, our data set provides a record of products involved in bilateral agreements and their tariff reduction.

For the GATT tariff commitments, we use the detailed tariff schedules from the United Nations Treaty Collection (UNTC) series to supplement our other sources.<sup>1</sup> Figure 4 illustrates the impact of Geneva round negotiations on *Rye*, which is covered under Paragraph 728 in the Smoot-Hawley system. During the course of the negotiations, the tariff rate applicable to *Rye* was further reduced to 6 cents per bushel of fifty-six pounds, a decrease from the 12 cents per bushel of fifty-six pounds previously agreed with Canada in the bilateral agreement.

Finally, we show how the TSUSA and HS systems account for *Rye* to demonstrate how our data could be linked to more modern product classification systems. Figures 5 and 6 show that *Rye* was assigned code 130.60 in TSUSA 1963 with no change in the tariff and is assigned code 1002.90 and becomes duty-free under the latest version of the Harmonized Tariff Schedule. Notice that in both pictures, the “Column 2” rates are exactly the original Smoot-Hawley rate of 15 cents per bushel of fifty-six pounds.<sup>2</sup>

## 2 Digitization Process

In this section, we provide details about how we digitized and merged our data sources. The location for each data source can be found in Table 12 of Section 8.1.1.

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<sup>1</sup>See Table 12 in Section 8.1.1 for details.

<sup>2</sup>The HTS changes the unit of measure for *Rye* from bushels of fifty six pounds to kilograms. To see that the “Column 2” rate is the same here as the Smoot-Hawley rate, note that 56 pounds is equal to approximately 25.401 kilograms.

Rice. PAR. 727. Paddy or rough rice,  $1\frac{1}{4}$  cents per pound; brown rice (hulls removed, all or in part),  $1\frac{1}{2}$  cents per pound; milled rice (bran removed, all or in part),  $2\frac{1}{2}$  cents per pound; broken rice, which will pass readily through a metal sieve perforated with round holes five and one-half sixty-fourths of one inch in diameter, and rice meal, flour, polish, and bran, five-eighths of 1 cent per pound.

Rye. PAR. 728. Rye, 15 cents per bushel of fifty-six pounds; rye malt, 40 cents per one hundred pounds; rye flour and meal, 45 cents per one hundred pounds.

Wheat. PAR. 729. Wheat, 42 cents per bushel of sixty pounds; wheat, unfit for human consumption, 10 per centum ad valorem; wheat flour, semolina, crushed or cracked wheat, and similar wheat

Figure 1: Rye in 1930 Smoot-Hawley Act

Group 1.—VEGETABLE FOOD PRODUCTS AND BEVERAGES

Class No.	Commodity	Unit of quantity	Rate of duty	Tariff paragraph
GRAINS AND PREPARATIONS				
10310	Corn.....	Bu. <sup>1</sup> .....	25¢ bu.....	724
10410	Oats.....	Bu. <sup>2</sup> .....	16¢ bu.....	726
Rice:				
10510	Paddy.....	Lb.....	1 $\frac{1}{4}$ ¢ lb.....	727
10511	Uncleaned or brown rice.....	Lb.....	1 $\frac{1}{2}$ ¢ lb.....	
10530	Cleaned or milled rice.....	Lb.....	2 $\frac{1}{2}$ ¢ lb.....	
10540	Patna rice, cleaned, for use in canned soups.....	Lb.....	Free.....	1752
10590	Broken rice and rice meal, flour, polish and bran.....	Lb.....	$\frac{5}{8}$ ¢ lb.....	727
Wheat:				
10700	For grinding in bond and export.....	Bu. <sup>3</sup> .....	Free.....	Sec. 311
10710	Ground into flour for export to Cuba.....	Bu. <sup>3</sup> .....	State duty.....	
10711	Other n. s. p. f.....	Bu. <sup>3</sup> .....	42¢ bu.....	
10720	Wheat flour.....	Lb.....	1.04¢ lb.....	729
10750	Biscuits, wafers, puddings, cakes, and other baked articles.....		30%.....	733
Macaroni, vermicelli, noodles, and similar pastes:				
10770	Containing no eggs or egg products.....	Lb.....	2¢ lb.....	725
10771	Containing eggs or egg products.....	Lb.....	3¢ lb.....	
Other grains and preparations:				
10790	Bread, yeast-leavened.....	Lb.....	Free.....	1623
109. 11	Buckwheat.....	Lb.....	0.25¢ lb.....	723
109. 12	Buckwheat flour and grits.....	Lb.....	$\frac{1}{2}$ ¢ lb.....	
Barley—				
109. 13	Hulled or unhulled.....	Bu. <sup>4</sup> .....	20¢ bu.....	722
109. 14	Flour and patent.....	Lb.....	2¢ lb.....	
109. 15	Pearl.....	Lb.....	2¢ lb.....	
109. 16	Malt.....	Lb.....	0.4¢ lb.....	
109. 17	Cereal breakfast foods and preparations, n. s. p. f.....	Lb.....	20%.....	732
109. 18	Cracked corn.....	Bu. <sup>1</sup> .....	25¢ bu.....	724
109. 19	Corn meal, flour, grits, and similar products.....	Lb.....	0.5¢ lb.....	729
169. 20	Semolina, crushed, cracked, and other wheat products, n. s. p. f.....	Lb.....	1.04¢ lb.....	729
109. 21	Oats, unhulled, ground.....	Lb.....	0.45¢ lb.....	726
109. 22	Oatmeal, rolled, grits, and similar oat products.....	Lb.....	0.8¢ lb.....	
109. 23	Rye.....	Bu. <sup>1</sup> .....	15¢ bu.....	728
109. 25	Rye malt.....	Lb.....	0.4¢ lb.....	
109. 26	Rye flour and meal.....	Lb.....	0.45¢ lb.....	
109. 27	Grains, n. s. p. f. ( <i>specify by name</i> ).....	Lb.....	10%.....	
109. 28	Grain flour, n. s. p. f. ( <i>specify by name</i> ).....	Lb.....	20%.....	1558
109. 30	Wheat unfit for human consumption.....	Bu. <sup>3</sup> .....	10%.....	729

Figure 2: Rye in 1930 Schedule A

**Group 1.—VEGETABLE FOOD PRODUCTS AND BEVERAGES**

Commodity number	Commodity description and economic class	Unit of quantity	Rate of duty		Tariff paragraph
			1930 Tariff Act (except as noted)	Trade agreement	
<b>GRAINS AND PREPARATIONS</b>					
1030 000	Barley (bushel 48 pounds).....	(2) Bu.....5	20¢ bu.....	15¢ bu. Can.....	722
1035 000	Buckwheat.....	(2) Lb.....1	0.25¢ lb.....	0.15¢ lb. Can.....	723
1031 000	Corn (bushel 56 pounds).....	(2) Bu.....5	25¢ bu.....	10¢ bu. Cuba.....	724
1041 000 <sup>4</sup>	Oats, hulled or unhulled, whether or not fit for human consumption (bushel 32 pounds).	(2) Bu.....5	16¢ bu.....	8¢ bu. Can.....	726
1044 000	Rye (bushel 56 pounds).....	(2) Bu.....5	15¢ bu.....	12¢ bu. Can.....	728
Rice:					
1041 000	Paddy.....	(2) Lb.....1	1 1/2¢ lb.....	.....	727
1041 100	Uncleaned or brown rice.....	(2) Lb.....1	1 1/2¢ lb.....	.....	
1043 000	Cleaned or milled rice.....	(4) Lb.....1	2 1/2¢ lb.....	.....	
1044 000	Patna rice, cleaned, for use in canned soups.	(4) Lb.....1	Free.....	.....	1752
1069 100	Rice meal, flour, polish, and bran.....	(4) Lb.....1	1/2¢ lb.....	.....	727
1069 200	Broken rice (include brewers' rice).....	(4) Lb.....1	1/2¢ lb.....	1/2¢ lb. Neth.....	
Wheat (bushel 60 pounds):					
1060 000 <sup>4</sup>	For grinding in bond and export to countries other than Cuba.	(2) Bu.....5	Free.....	.....	Sec. 311
1065 000 <sup>4</sup>	Ground into flour for export to Cuba.....	(2) Bu.....5	Report duty collected quar-	.....	

Figure 3: Rye in 1946 Schedule A

## 2.1 The Smoot-Hawley System

The first document we found is a tariff schedule for the U.S. that consolidates the concessions made in the Geneva, Annecy and Torquay rounds. We refer to this as the “consolidated Torquay schedule.” This document was in hard copy and borrowed from the University of Texas Libraries. We scanned the hard copy, conducted optical character recognition (OCR) and digitized the file in R. By running the R package *pdftools*,<sup>3</sup> we obtain an editable Microsoft Excel file that consists of detailed product descriptions and their corresponding tariff rates. Since the consolidated Torquay schedule includes the tariff commitments of the first three rounds of the GATT, we were able to construct a benchmark schedule that includes most of the products from Smoot-Hawley to the Torquay round (1950).

Subsequently, we found more complete and systematic data in the UNTC, which provides the individual schedule of products negotiated in each round of the GATT in the format of Smoot-Hawley paragraph number. We then manually entered the U.S. tariff rate for each round line by line based on the framework we had constructed via the consolidated schedules. To check the reliability of our benchmark file, we compared the three individual rounds we have from the UNTC with the consolidated version by the Torquay round and found no discrepancies in the reported tariff rates.

Next, we located a scanned copy of the 1930 Smoot-Hawley Tariff Act and integrated its tariff rates into our dataset. The Smoot-Hawley tariffs make sense as a benchmark because they continued to be the prevailing legal tariffs of the U.S. unless modified by subsequent agreement or legislation. We therefore made sure to enter all products in the original Smoot-

<sup>3</sup><https://cran.r-project.org/web/packages/pdftools/pdftools.pdf>

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SCHEDULE XX - UNITED STATES OF AMERICAPart I (continued)

Tariff Act of 1930, para-graph	Description of Products	Rate of Duty
722	Barley, hulled or unhulled.....	7-1/2¢ per bu. of 48 lb.
722	Barley malt.....	30¢ per 100 lb.
722	Pearl barley.....	1/2¢ per lb.
722	Patent barley and barley flour.....	2¢ per lb.
723	Buckwheat, hulled or unhulled.....	10¢ per 100 lb.
723	Buckwheat flour and grits or groats.....	1/5¢ per lb.
726	Oats, hulled or unhulled.....	4¢ per bu. of 32 lb.
726	Unhulled ground oats.....	25¢ per 100 lb.
726	Oatmeal, rolled oats, oat grits, and similar oat products.....	10% ad val., but not less than 40¢ nor more than 80¢ per 100 lb.
727	Broken rice, which will pass readily through a metal sieve perforated with round holes five and one-half sixty-fourths of one inch in diameter.....	5/16¢ per lb.
727	Rice meal, flour, polish, and bran.....	5/16¢ per lb.
728	Rye.....	6¢ per bu. of 56 lb.
728	Rye malt.....	30¢ per 100 lb.
728	Rye flour and meal.....	30¢ per 100 lb.
729	Wheat.....	21¢ per bu. of 60 lb.
729	Wheat, unfit for human consumption.....	5% ad val.

Figure 4: Rye in Geneva Round U.S. Tariff Schedule from UNTC

TARIFF SCHEDULES OF THE UNITED STATES ANNOTATED (1963)

SCHEDULE I. - ANIMAL AND VEGETABLE PRODUCTS  
Part 7. - Cereal Grains, Milled Grain Products, and Malts and Starches

34

Item	Stat. Sur-fix	Articles	Units of Quantity	Rates of Duty	
				1	2
130.45	00	Oats, hulled or not hulled.....	Bu..	4¢ per bu. of 32 lbs.	16¢ per bu. of 32 lbs.
130.50	00	Rice:	Lb.....	1.25¢ per lb.	1.25¢ per lb.
130.55	00	Paddy or rough.....	Lb.....	1.5¢ per lb.	1.5¢ per lb.
130.60	00	Brown (hulls removed, all or in part).....	Bu.....	6¢ per bu. of 56 lbs.	15¢ per bu. of 56 lbs.
130.65	20	Wheat:	.....	5% ad val.	10% ad val.
	40	Not fit for human consumption.....	Bu.....		
		Seed wheat.....	Bu.....		
		Other.....	Bu.....		
130.70	20	Other:	.....	21¢ per bu. of 60 lbs.	42¢ per bu. of 60 lbs.
	40	Seed wheat.....	Bu.....		
		Other.....	Bu.....		
Subpart B. - Milled Grain Products <sup>1/</sup>					
Subpart B headnote:					
1. The term "milled grain products", as used in this subpart, embraces flours, grits, groats, meal, flaked or rolled grains, and other products, all the foregoing, whether or not fit for human consumption, made or derived from the grains named in subpart A of this part by grinding, crushing, breaking, rolling, flaking, pearling, polishing, or similar milling processes, but does not include by-products or wastes resulting from any of these processes.					
Milled grain products:					
Fit for human consumption:					
Barley:					
131.10	00	Pearl barley.....	Lb.....	0.4¢ per lb.	2¢ per lb.
131.12	00	Other.....	Lb.....	2¢ per lb.	2¢ per lb.
131.15	00	Buckwheat.....	Lb.....	0.2¢ per lb.	0.5¢ per lb.
131.20	00	Corn.....	Cwt.....	50¢ per 100 lbs.	50¢ per 100 lbs.
131.21	00	If product of Cuba.....	.....	40¢ per 100 lbs. (s)	
131.25	00	Oats:	Cwt.....	10% ad val.	80¢ per 100 lbs.
131.27	00	Valued not over \$8 per 100 lbs.....	Cwt.....	80¢ per 100 lbs.	80¢ per 100 lbs.
131.30	00	Valued over \$8 per 100 lbs.....	.....		
131.31	00	Rice:	Lb.....	2.5¢ per lb.	2.5¢ per lb.
131.33	00	Milled rice (bran removed all or in part).....	.....	2¢ per lb. (s)	
		If product of Cuba.....	.....		
		Broken rice, which will pass readily through a metal sieve perforated with round holes 11/128 inch in diameter.....	.....		
131.35	00	Meal and flour.....	Lb.....	0.3125¢ per lb.	0.625¢ per lb.
131.37	00	Patna, cleaned, for use in the manufacture of canned soups.....	Lb.....	0.3125¢ per lb.	0.625¢ per lb.
131.38	00	Rye.....	Cwt.....	Free	Free
131.40	00	Wheat.....	Cwt.....	22.5¢ per 100 lbs.	45¢ per 100 lbs.
131.45	00	Other.....	Lb.....	5¢ per 100 lbs.	\$1.04 per 100 lbs.
131.46	00	If products of Cuba.....	.....	20% ad val.	20% ad val.
		Not fit for human consumption:	.....	16% ad val. (s)	
131.50	00	Barley.....	Cwt.....	15¢ per 100 lbs.	40¢ per 100 lbs.
131.57	00	Buckwheat.....	Cwt.....	10¢ per 100 lbs.	25¢ per 100 lbs.
131.60	00	Corn.....	Cwt.....	45¢ per 100 lbs.	45¢ per 100 lbs.
131.61	00	If product of Cuba.....	.....	18¢ per 100 lbs. (s)	
131.65	00	Oats.....	Cwt.....	12.5¢ per 100 lbs.	50¢ per 100 lbs.
131.67	00	Rice.....	Cwt.....	31.25¢ per 100 lbs.	62.5¢ per 100 lbs.
131.70	00	Rye.....	Cwt.....	10.5¢ per 100 lbs.	26.8¢ per 100 lbs.
131.72	00	Wheat:	Cwt.....	2.5% ad val.	10% ad val.
131.75	00	Flour.....	Cwt.....	5% ad val.	10% ad val.
131.80	00	Other.....	Cwt.....	10% ad val.	20% ad val.

(s) = Suspended. See general headnote 3(b).  
<sup>1/</sup> Imports of certain milled grain products are subject to additional import restrictions. See Appendix to Tariff Schedules.

Figure 5: Rye in TSUSA 1963

### Harmonized Tariff Schedule of the United States Revision 8 (2024)

Annotated for Statistical Reporting Purposes

II  
10-3

Heading/ Subheading	Stat. Suf- fix	Article Description	Unit of Quantity	Rates of Duty		
				1		2
				General	Special	
1001 (con.)		Wheat and meslin: (con.)				
		Other:				
1001.91.00	00	Seed.....	kg.....	2.8% <sup>2/</sup>	Free (A+, AU, BH, CL, CO, D, E, IL, JO, KR, MA, OM, P, PA, PE, S, SG)	10%
1001.99.00		Other.....		0.35¢/kg <sup>2/</sup>	Free (A+, AU, BH, CL, CO, D, E, IL, JO, KR, MA, OM, P, PA, PE, S, SG)	1.5¢/kg
	05	Canadian western extra strong hard red spring (CWES/HRS) wheat.....	kg			
		Other:				
	07	Certified organic:				
		Red spring wheat.....	kg			
	09	Other.....	kg			
		Other:				
		Red spring wheat:				
		Grade 1:				
	10	Having a specified protein content not exceeding 12.9% by weight....	kg			
	17	Having a specified protein content exceeding 12.9% but not exceeding 13.9% by weight.....	kg			
	18	Having a specified protein content exceeding 13.9% by weight.....	kg			
		Grade 2:				
	27	Having a specified protein content not exceeding 12.9% by weight....	kg			
	30	Having a specified protein content exceeding 12.9% but not exceeding 13.9% by weight.....	kg			
	33	Having a specified protein content exceeding 13.9% by weight.....	kg			
	36	Other red spring wheat.....	kg			
	45	White winter wheat.....	kg			
	55	"Canadian" western red winter wheat....	kg			
	65	Soft white spring wheat.....	kg			
	97	Other.....	kg			
1002		Rye:				
1002.10.00		Seed.....		Free <sup>2/</sup>		0.59¢/kg
	10	Seeds of a kind used for sowing.....	kg			
	90	Other.....	kg			
1002.90.00	00	Other.....	kg.....	Free <sup>2/</sup>		0.59¢/kg

Figure 6: Rye in 2024 Harmonized System

Hawley tariffs into our data. That is, even if some products did not receive commitments in later rounds, they are still included in our dataset.

## 2.2 Schedule A System

Our dataset is organized according to the 1946 Schedule A. The Schedule A system has more precise descriptions and divides products into smaller categories than the Smoot-Hawley paragraph number system. It was used to process imports and generate the import data during this time period, so organizing by Schedule A allows us to construct our final data set at a detailed product level while integrating tariff rates with import quantities and values.

We digitized the 1946 Schedule A by hand using double data entry procedures to ensure accuracy. The Schedule A document contains all tariff changes between 1930 and 1946 at product level in terms of the Schedule A codes, whether through bilateral negotiations or unilateral action. We later also digitized other years of the Schedule A and created concordances to construct our panel data. Finally, by assigning a unique identifier to each product, we constructed a sorting system that allows the data to be sorted according to either the Smoot-Hawley paragraph number or the Schedule A code.

## 2.3 Import data

We need product-level U.S. import data for two purposes: first, the import value for each product is crucial for measuring the importer market power; second, specific tariffs are quite common in this era and we use import values to calculate AVEs for products with specific duties. Following the previous example of tariff rates on *Rye*, the import entry for *Rye* in year 1946 is shown in Figure 7.

## 2.4 Industrial Classification Systems

In this section, we compare the industrial classification across different systems. The industrial groupings were defined differently under Smoot-Hawley (“Schedules”) and the Schedule A (“Groups”). We provide the comparison between these two systems in Tables 1 and 2. We also include an example of the linkage across schedules (groups) between the Smoot-Hawley Paragraph Number and the Schedule A Code in Figure 8. To provide further comparison of such systems with the modern system, we include a summary of the TSUSA “Sections” in Table 3 as demonstration.



NO. 1—IMPORTS FOR CONSUMPTION OF MERCHANDISE BY COMMODITY BY COUNTRY OF ORIGIN, 1946

Commodity Group 1—Vegetable Food Products and Beverages

102000-109000

BARLEY (BUSHEL 48 POUNDS)			RICE MEAL, FLOUR, POLLEN, AND BRAN			SAFES, PUDDINGS, COJES AND OTHER BAKED ARTICLES (INCLUDING CHEESECAKE OR FLAVORED BISCUITS)			PEARL BARLEY		
Tar. Par. 722	15¢ bu. A.R.		Tar. Par. 727	5/8¢ lb.		Tar. Par. 733	15¢ A.R.		Tar. Par. 722	1¢ lb. A.R.	
Cal. Duty \$661,709	Eq. Ad Val. 10.2%		Cal. Duty \$23,752	Eq. Ad Val. 19.4%		Cal. Duty \$1,232			Cal. Duty \$4	Eq. Ad Val. 1.6%	
<b>A No. 1090 000</b>			<b>A No. 1059 100</b>			<b>A No. 1075 500</b>			<b>A No. 1090 150</b>		
Total.....	Bushels	Dollars	Total.....	Pounds	Dollars	Total.....	Pounds	Dollars	Total.....	Pounds	Dollars
Canada <sup>1</sup> .....	4,411,433	8,499,129	Mexico.....	3,800,372	122,869	Canada.....	8,345	1,995	Canada.....	394	221
Canada <sup>2</sup> .....	38	143	Dominican Rep.....	1,914,200	22,067	New Zealand Labr.....	153	153	China.....	103	3
Canada.....	4,411,395	8,498,986	Colombia.....	100	15	Norway.....	2,014	2,014	China.....	294	213
<b>BUCKWHEAT</b>			Brazil.....	3,157	193	Denmark Inc Faroe.....	65	65	<b>CEREAL BREAKFAST FOODS AND PREPARATIONS, N.S.P.F.</b>		
Tar. Par. 723	0.15¢ lb. A.R.		Iran.....	1,873,360	95,835	United Kingdom.....	2,515	2,515	Tar. Par. 728	10¢ A.R.	
Cal. Duty <sup>3</sup>	Eq. Ad Val. 3.2%		China.....	441	100	France.....	726	726	Cal. Duty \$5,625		
<b>A No. 1025 000</b>			Hong Kong.....	8,542	3,668	Portugal.....	1	1	<b>A No. 1090 170</b>		
Total.....	Pounds	Dollars	Tar. Par. 727	5/16¢ lb. A.R.		China.....	349	349	Total.....	Pounds	Dollars
Canada.....	100	4	Cal. Duty \$10,231	Eq. Ad Val. 6.5%		Hong Kong.....	516	516	Canada.....	1,255,560	71,606
<b>COEN (BUSHEL 56 POUNDS)</b>			<b>BROWN RICE</b>			<b>MACARONI, VERMICELLI, NOODLES, AND SIMILAR PASTES, CONTAINING NO EGGS OR EGG PRODUCTS</b>			Canada.....	35,235	5,335
Tar. Par. 724	25¢ bu.		Tar. Par. 727	5/16¢ lb. A.R.		Tar. Par. 725	1-1/2¢ lb. A.R.		China.....	1,220,125	66,246
Cal. Duty \$180,000	Eq. Ad Val. 11.1%		Cal. Duty \$10,231	Eq. Ad Val. 6.5%		Cal. Duty \$5,321	Eq. Ad Val. 3.0%		Netherlands.....	30	3
<b>A No. 1031 000</b>			<b>WHEAT (BUSHEL 60 POUNDS), FOR GRINDING IN BOND AND EXPORT TO COUNTRIES OTHER THAN CUBA</b>			<b>A No. 1077 000</b>			Australia <sup>2</sup> .....	172	22
Total.....	Bushels	Dollars	Tar. Par. Sec. 311—Free			Total.....	Pounds	Dollars	<b>CRACKED CORN (BUSHEL 56 POUNDS)</b>		
Canada.....	720,001	1,622,327	Canada <sup>1</sup> .....	30,332	3,585	Canada.....	291,488	183,257	Tar. Par. 724	25¢ bu.	
Canada.....	95,586	430,012	Canada.....	122,060	10,916	Canada <sup>2</sup> .....	30,332	3,585	Cal. Duty \$5,625	Eq. Ad Val. 12.6%	
Mexico.....	13,010	22,591	Argentina.....	22,045	1,035	Canada.....	102,060	10,916	<b>A No. 1090 180</b>		
Haiti.....	5,910	11,722	Philippine Rep.....	6,440	3,835	Total.....	Bushels	Dollars	Total.....	Bushels	Dollars
Dominican Rep.....	607,326	1,160,674	China.....	167,916	154,451	Canada.....	22,752	45,126	Canada.....	22,752	45,126
Brazil.....	169	200	Hong Kong.....	12,695	11,515	Dominican Rep.....	22,752	45,126	Canada.....	22,752	45,126
<b>DATS, HULLED, OR UNHULLED, WHETHER OR NOT FIT FOR HUMAN CONSUMPTION (BUSHEL 32 POUNDS)</b>			<b>WHEAT (BUSHEL 60 POUNDS), GROUND INTO FLOUR FOR EXPORT TO CUBA</b>			<b>MACARONI, VERMICELLI, NOODLES, AND SIMILAR PASTES, CONTAINING EGGS OR EGG PRODUCTS</b>			Dominican Rep.....	22,752	45,126
Tar. Par. 725	9¢ bu. A.R.		Tar. Par. Sec. 311	7.7¢ bu.		Tar. Par. 725	2¢ lb. A.R.		<b>CCC WHEAT, FLOUR, GRITS, AND SIMILAR PRODUCTS</b>		
Cal. Duty \$204,452	Eq. Ad Val. 8.4%		Cal. Duty \$24,021	Eq. Ad Val. 5.5%		Cal. Duty \$1,323	Eq. Ad Val. 2.3%		Tar. Par. 724	0.5¢ lb.	
<b>A No. 1041 600</b>			<b>A No. 1065 000</b>			<b>A No. 1077 100</b>			Cal. Duty \$1,047	Eq. Ad Val. 14.6%	
Total.....	Bushels	Dollars	Total.....	Bushels	Dollars	Total.....	Pounds	Dollars	<b>A No. 1090 190</b>		
Canada.....	2,555,648	2,441,092	Canada.....	310,017	440,010	Canada.....	131,455	66,400	Total.....	Pounds	Dollars
Canada.....	2,555,648	2,441,092	Canada.....	310,017	440,010	Canada <sup>2</sup> .....	65,329	7,757	Dominican Rep.....	229,477	7,124
<b>RYE (BUSHEL 56 POUNDS)</b>			<b>OTHER WHEAT (BUSHEL 60 POUNDS)</b>			<b>HARD CRISP RYE BREAD, YEAST-LEAVENED</b>			Australia <sup>2</sup> .....	24	2
Tar. Par. 728	12¢ bu. A.R.		Tar. Par. 729	42¢ bu.		Tar. Par. 1633—Free			<b>A No. 1090 200</b>		
Cal. Duty \$119,030	Eq. Ad Val. 4.6%		Cal. Duty \$15,276	Eq. Ad Val. 20.8%		<b>A No. 1079 100</b>			<b>CATS, UNHULLED, GROUND</b>		
<b>A No. 1044 000</b>			<b>A No. 1066 500</b>			<b>A No. 1079 100</b>			Tar. Par. 725	0.25¢ lb. A.R.	
Total.....	Bushels	Dollars	Total.....	Bushels	Dollars	Total.....	Pounds	Dollars	Cal. Duty \$131,454	Eq. Ad Val. 9.1%	
Canada.....	291,636	2,488,407	Canada.....	36,372	73,275	Canada.....	79	5	<b>A No. 1090 210</b>		
Canada.....	291,636	2,488,407	Canada.....	36,372	73,275	Canada.....	79	5	Total.....	Pounds	Dollars
<b>PADDY RICE</b>			<b>WHEAT, SUIT FOR HUMAN CONSUMPTION (BUSHEL 60 POUNDS)</b>			<b>BREAD, YEAST-LEAVENED EXCEPT HARD CRISP RYE</b>			Canada.....	52,585,600	1,445,469
Tar. Par. 727			Tar. Par. 729	5¢ A.R.		Tar. Par. 1633—Free			Canada.....	52,585,600	1,445,469
<b>A No. 1061 000</b>			<b>A No. 1067 000</b>			<b>A No. 1079 200</b>			<b>A No. 1090 220</b>		
No Transactions			Total.....	Bushels	Dollars	Total.....	Pounds	Dollars	Total.....	Pounds	Dollars
No Transactions			Canada.....	53,134	74,868	Canada.....	119,139	22,547	Canada.....	22,855	1,319
No Transactions			Canada.....	45,767	68,249	Canada.....	73,676	16,048	<b>A No. 1090 220</b>		
No Transactions			Argentina.....	7,347	6,619	Norway.....	44,513	6,337	Total.....	Pounds	Dollars
No Transactions			<b>WHEAT FLOUR</b>			Australia.....	950	162	Canada.....	22,855	1,319
Tar. Par. 727	1-1/2¢ lb.		Tar. Par. 729	1.04¢ lb.		<b>BARLEY MALT</b>			<b>A No. 1090 220</b>		
Cal. Duty <sup>7</sup>	Eq. Ad Val. 1.1%		Cal. Duty \$3,083	Eq. Ad Val. 24.2%		Tar. Par. 722	0.4¢ lb. A.R.		<b>A No. 1090 220</b>		
<b>A No. 1051 100</b>			<b>A No. 1072 000</b>			<b>A No. 1080 000</b>			<b>A No. 1090 220</b>		
Total.....	Pounds	Dollars	Total.....	Pounds	Dollars	Total.....	Pounds	Dollars	Total.....	Pounds	Dollars
China.....	3	4	Canada.....	955,557	38,796	Canada.....	3,348,440	148,896	Tar. Par. 725	0.4¢ lb. A.R.	
China.....	3	4	Canada.....	577,200	22,078	Canada.....	3,348,440	148,896	Cal. Duty \$26	Eq. Ad Val. 19.4%	
<b>CLEARED OR MILLED RICE</b>			Canada.....	86,048	3,725	<b>BUCKWHEAT FLOUR AND GRITS OR GROATS</b>			Total.....	Pounds	Dollars
Tar. Par. 727	1-1/2¢ lb.		Canada.....	2,198	71	Tar. Par. 723	0.3¢ lb. A.R.		Canada.....	14,000	288
Cal. Duty \$5,237	Eq. Ad Val. 20.0%		Canada.....	294,592	11,878	Cal. Duty \$2	Eq. Ad Val. 7.5%		Canada.....	14,000	288
<b>A No. 1053 000</b>			China.....	500	23	<b>A No. 1090 180</b>			<b>A No. 1090 250</b>		
Total.....	Pounds	Dollars	China.....	1,680	752	Total.....	Pounds	Dollars	Total.....	Pounds	Dollars
Canada.....	202,498	26,134	Hong Kong.....	168	87	Canada.....	780	34	Canada.....	1,248	152
Canada.....	202,498	26,134	Australia <sup>2</sup> .....	4,171	172	Canada.....	200	12	Canada.....	1,248	152
Mexico.....	40,473	3,670	<b>BISCUITS (NOT CHEESECAKE OR FLAVORED)</b>			Canada.....	580	22	<b>RYE MALT</b>		
Honduras.....	73	3	Tar. Par. 723	15¢ A.R.		<b>BARLEY FLOUR AND PATENT BARLEY</b>			Tar. Par. 728		
Bahamas.....	227	46	Cal. Duty \$3,488			Tar. Par. 722	5¢ lb. A.R.		<b>A No. 1090 250</b>		
Dominican Rep.....	152,000	20,051	Canada.....	22,078		Cal. Duty \$2	Eq. Ad Val. 10.0%		<b>A No. 1090 250</b>		
Iran.....	12,769	2,322	Canada.....	86,048		<b>A No. 1090 140</b>			<b>RYE FLOUR AND MEAL</b>		
<b>BATH RICE, CLEARED, FOR USE IN CANNED SOUPS</b>			Canada.....	2,198		Total.....	Pounds	Dollars	Tar. Par. 728		
Tar. Par. 1732			Canada.....	294,592		Canada.....	160	4	<b>A No. 1090 260</b>		
<b>A No. 1054 000</b>			China.....	289		China.....	20	20	<b>A No. 1090 260</b>		
No Transactions			Australia <sup>2</sup> .....	195		<b>A No. 1090 140</b>			<b>A No. 1090 260</b>		
No Transactions			<b>Australia<sup>2</sup>.....</b>			Total.....	Pounds	Dollars	<b>A No. 1090 260</b>		
No Transactions			Canada.....	22,078		Canada.....	160	4	<b>A No. 1090 260</b>		
No Transactions			Canada.....	86,048		China.....	20	20	<b>A No. 1090 260</b>		
No Transactions			Canada.....	2,198		<b>A No. 1090 140</b>			<b>A No. 1090 260</b>		
No Transactions			Canada.....	294,592		Total.....	Pounds	Dollars	<b>A No. 1090 260</b>		
No Transactions			China.....	289		Canada.....	160	4	<b>A No. 1090 260</b>		
No Transactions			Australia <sup>2</sup> .....	195		China.....	20	20	<b>A No. 1090 260</b>		

<sup>1</sup>Free, int. courtesy. <sup>2</sup>Free, U. S. Government. <sup>3</sup>Free, vessel supplies. <sup>4</sup>Agreement rate less 20 percent. <sup>5</sup>Less than one-half dollar. <sup>6</sup>Free, for bonded whse. m.r. and exp. <sup>7</sup>Free, republic of the Philippines.

Figure 7: Import value and quantity data for Rye, 1946

Table 1: Schedules in Smoot-Hawley

Schedule	Category	Paragraph Number
1	Chemicals, Oils, and Paints	1 to 97
2	Earths, Earthenware, and Glassware	201 to 236
3	Metals and Manufactures of	301 to 398
4	Wood and Manufactures of	401 to 412
5	Sugar, Molasses, and Manufactures of	501 to 506
6	Tobacco and Manufactures of	601 to 605
7	Agricultural Products and Provisions	701 to 783
8	Spirits, Wines, and Other Beverages	801 to 815
9	Cotton Manufactures	901 to 924
10	Flax, Hemp, Jute, and Manufactures of	1001 to 1022
11	Wool and Manufactures of	1101 to 1122
12	Silk Manufactures	1201 to 1211
13	Manufactures of Rayon or Other Synthetic Textile	1301 to 1313
14	Papers and Books	1401 to 1413
15	Sundries	1501 to 1559
16,17,18	Title II - Free List	1601 to 1814

Table 2: Groups in Schedule A

Group	Category	Schedule A Code
00	Animals and Animal Products, Edible	0010600-0097500
0	Animals and Animal Products, Inedible	0201000-0990290
1	Vegetable Food Products and Beverages	1020000-1900000
2	Vegetable Products, Inedible, Except Fibers and Wood	2011000-2960150
3	Textile Fibers and Manufactures	3001000-3981100
4	Wood and Paper	4007100-4799990
5	Nonmetallic Minerals	5000000-5958100
6	Metal and Manufactures Except Machinery and Vehicles	6001000-6900500
7	Machinery and Vehicles	7063000-7940290
8	Chemicals and Related Products	8000000-8731200
9	Miscellaneous	9001000-9990750



Figure 8: Relationship between Smoot-Hawley and Schedule A for Food products

*Notes:* The left-hand side of the chart shows where products are classified under the Smoot-Hawley system, while the right-hand side shows where they are classified under the Schedule A. The number after each colon is the number of products. For example, the first line on the left-hand side implies that there are 137 lines in Schedule 1 in Smoot-Hawley (Chemicals, Oils and Paints) that are concorded to Group 0 in the Schedule A system (Animals and Animal Products, Inedible).

Table 3: Sections in TSUSA

Section	Category	TSUSA.Code
1	Animal and Vegetable Products	100.01 to 193.25
2	Wood and Paper; Printed Matter	200.03 to 274.90
3	Textile Fibers and Textile Products	300.10 to 390.60
4	Chemicals and Related Products	401.02 to 495.20
5	Nonmetallic Minerals and Products	511.11 to 548.05
6	Metals and Metal Products	601.03 to 696.60
7	Specified Products: Miscellaneous and Nonemunerated Products	700.05 to 799.00
8	Special Classification Provisions	800 to 870.25

### 3 Formulaic Tariff Rates

In several cases, one negotiated tariff change affects many products via a formula. We keep only representative products in these cases so as not to over-state the scope of the negotiated change in tariffs. This means that we include only representative lines for two types of products: Cotton textiles—and the handkerchiefs made from them—and the alloy content of some iron and steel products.

#### 3.1 Alloy Content of Iron and Steel Products

Some metal products exhibit a high degree of diversity in their alloy content. The structure of the tariff rates for these metal products is comprised of three distinct rates. The first is the base rate, which applies to products manufactured from steel. The second is an additional rate, which is applied to products manufactured from steel that have been specially processed. This is indicated by the digit “2” in the sixth position of the code. The third is a separate rate, which is applied to products containing an alloy. This is indicated by the seventh digit in the code, and charged only on the net content. To take one example, Schedule A code 6008820 is defined as “*steel bars, whether solid or hollow, valued over 16 cents per pound and if galvanized or coated with metal.*” Its rate is comprised of a 20 percent ad valorem (base rate) plus a specific rate of 2 cents per pound. A related line, 6008824, indicates the *chromium content* contained in this steel bar product has a tariff rate of 3 cents per pound on the weight of the alloy content. We exclude almost all of these alloy content lines (approximately 100 Schedule A numbers), keeping only one representative Schedule A

number for each type of alloy.<sup>4</sup>

## 3.2 Cotton Textiles

The tariffs for cotton yarn and cotton cloth textile products are contingent on the process by which they are made, the presence of other materials, and size (yarn number). The structure of textile products, as defined by Schedule A codes from 3010 to 3067 (excluding 3030 000 and 3030 100), takes account of these components systematically. The initial element is a base rate related to the type of yarn or cloth (i.e., bleached, unbleached, dyed). This is denoted by a fourth digit of zero in the Schedule A number. The second component is the cumulative rate, which is contingent upon the yarn number of the product and is reflected in the final three digits of the Schedule A code. The third component denotes the amount of non-cotton content and the method of production and is reflected in the fourth digit of the product. To illustrate, consider product 3061005. The base rate is 3060, which has a 16 percent ad valorem tariff. The yarn number is five, which adds up to  $16 + 0.35 \times 5 = 17.75$  percent ad valorem rate. Additionally, the fourth digit is equal to one, categorizing the product as “Woven with 8 more harness, or with Jacquard, lappet, or swivel attachments,” which adds an additional 10 percent rate. Thus, the ultimate rate for product 3061005 in the context of the Smoot-Hawley tariff is 27.75 percent.

The challenge of dealing with textile products is that there are approximately 1,000 import records for these products but less than two dozen independently-negotiated tariff rates. Thus, the importance of these negotiated changes would be overstated if we include every product with a Schedule A number. Since the tariff reduction of these products is systematic, the tariff reductions on these products can be summarized by a few representative lines. Accordingly, in our analysis, we have included only the Schedule A code for the product with the median import value within each subgroup from 3010 to 3067 (excluding 3030). In this manner, the changes in tariff rates for the textile group products are captured, and the risk of overemphasis is limited. To ensure the reliability of our findings, we conducted a robustness check by separately testing the inclusion of all textile products. Our primary result remained consistent even after this additional analysis.

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<sup>4</sup>Note that most of these lines would not be included in our data set even without this restriction because most of them have specific tariff rates but only quantities are included in the import data so that we cannot calculate their AVEs.

### 3.3 Handkerchiefs

A large number of cotton handkerchief products have their tariff rate set as the base rate of the cotton cloth that is their chief component. Thus, again, changes in their tariff rates are entirely dependent on the negotiations on cotton cloth. As all products utilized in the production of these handkerchiefs have already been included in our representative lines for cotton cloth, entering separate lines for each one for the handkerchief versions would be redundant. Moreover, as with the textile products, there are a considerable number of import records with minimal import values for these dependent handkerchief products. Accordingly, we only retain the handkerchief products that have explicitly-specified, independently-negotiated tariffs.