

Did the New Deal Expand U.S. Trade?

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1. Introduction

The Great Depression was a dark period for U.S. foreign trade. The volume of U.S. exports and imports contracted over 40 percent between 1929 and 1932. The decline in imports reflected falling domestic demand and higher import tariffs, partly the result of the Smoot-Hawley tariff of 1930. The decline in exports reflected falling foreign demand, the depreciation of sterling-bloc currencies no longer tied to gold, and the retaliation and discrimination against American goods subsequent to the Smoot-Hawley tariff.

The Roosevelt administration took office in March 1933 with the goal of reversing this decline in trade and promoting economic recovery. The centerpiece of the administration's trade policy was the Reciprocal Trade Agreements Act of 1934. This legislation granted the executive branch the authority to reach agreements with other countries to reduce tariffs on each others' products. This policy of reciprocity exchanged lower U.S. tariffs on foreign goods for lower foreign tariffs on U.S. goods. As President Roosevelt noted in his March 1934 message to Congress proposing the legislation, the premise behind it is that "a full and permanent domestic recovery depends in part upon a revived and strengthened international trade and that American exports cannot be permanently increased without a corresponding increase in imports" (Tasca 1938, 300).

By 1939, the United States had concluded reciprocal trade agreement with nearly two dozen countries. U.S. import duties were reduced, to an extent that will be quantified below, and presumably U.S. exports faced slightly lower barriers in foreign countries. However, the New Deal also involved programs that imposed new constraints on U.S. trade. The Agricultural Adjustment Act (AAA) provided for domestic price supports and acreage reductions that constrained agricultural exports. In addition, the National Industrial Recovery Act (NIRA) permitted the administration to impose import quotas to prevent imports from undermining the NIRA's price codes.

Surprisingly, the impact of these policies on U.S. foreign trade during the 1930s has not been investigated in much detail. The Reciprocal Trade Agreements Act (RTAA) has been studied mainly for its effect on the political economy of U.S. trade policy, namely, facilitating the liberalization of U.S. trade policy by shifting authority from Congress to the executive branch

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(Bailey, Goldstein, and Weingast 1997, Irwin 1998). Yet its impact on the pattern of U.S. trade has never been systematically examined. Likewise, the economic impact of the AAA on agricultural exports and the imposition of quotas introduced under the NIRA have not been examined in recent decades.

This paper seeks to determine the impact of these policies on U.S. foreign trade during the 1930s. In focusing on the agreements reached under the RTAA, it asks:

- How much the trade agreements reached after 1934 succeeded in reducing U.S. tariffs and shaping U.S. trade flows.

In addition, the following questions about other New Deal policies and U.S. trade will be posed:

- How much the AAA reduced U.S. agricultural exports in the early 1930s?
- Were import quotas imposed under the NIRA and did they significantly reduce imports?

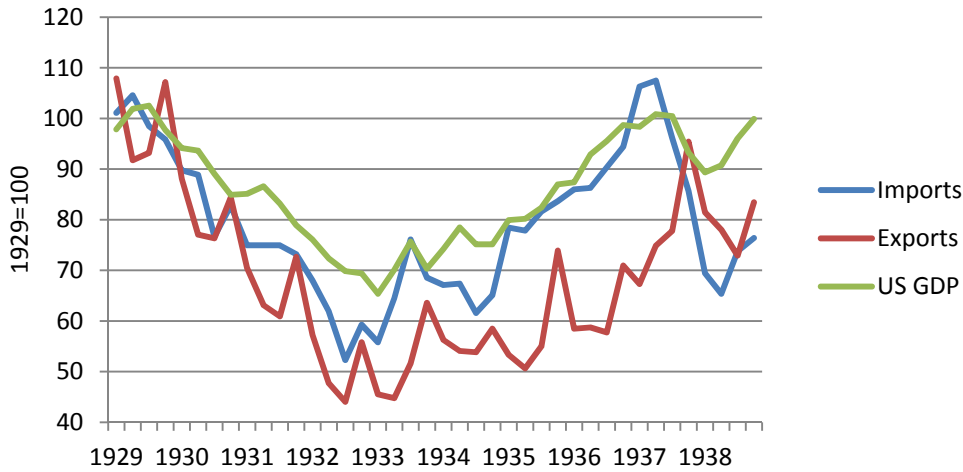
In other words, did the Roosevelt administration achieve its policy objectives of expanding U.S. foreign trade during the 1930s?

2. Background: Foreign Trade and the U.S. Economic Recovery

International trade was a small part of the U.S. economy before the Great Depression and it became an even smaller part as a result of the Depression. In 1929, exports of goods and services were just xx percent of GDP, while the same figure for imports was xx.

During the Depression, the volume of trade (both exports and imports) fell much more than real GDP. Figure 1 shows the quarterly volume of U.S. exports and imports, as well as quarterly real GDP, from 1929 to 1938. Trade recovered in 1933, but the pattern was different between imports and exports. Import volume expanded briskly in line with the growth in real GDP, and fell sharply with the 1937-38 recession. Imports behaved as one would normally expect. But the expansion in exports lagged that of imports.

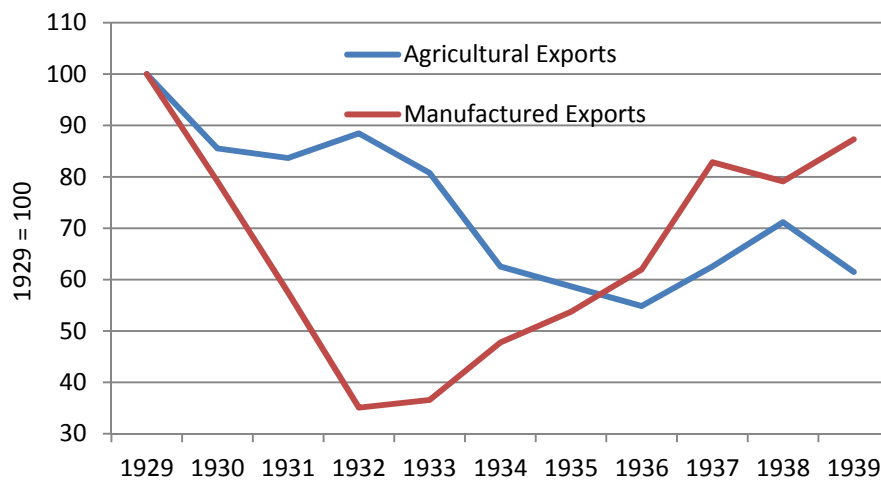
Figure 1: U.S. Export and Import Volume and Real GDP, quarterly, 1929-38



Source: *Survey of Current Business*, July 1951, and Balke and Gordon (1986).

What explains the sluggish behavior of exports? Figure 2 shows that agricultural and manufactured exports behaved quite differently over this period. Exports of manufactured goods (comprising 49 percent of U.S. exports in 1929) followed the general path of the depression: a sharp fall in 1929-32, followed by a slow recovery from 1933-39. However, agricultural exports continued to slump through most of the 1930s. There are two obvious explanations for the problems afflicting agricultural exports: the drought across much of the country in the mid-1930s, as well as the price supports and acreage reductions introduced by the New Deal. (This paper will provide some rough estimates as to the relative contribution of each in a later section.)

Figure 2: Volume of U.S. Exports, 1929-39

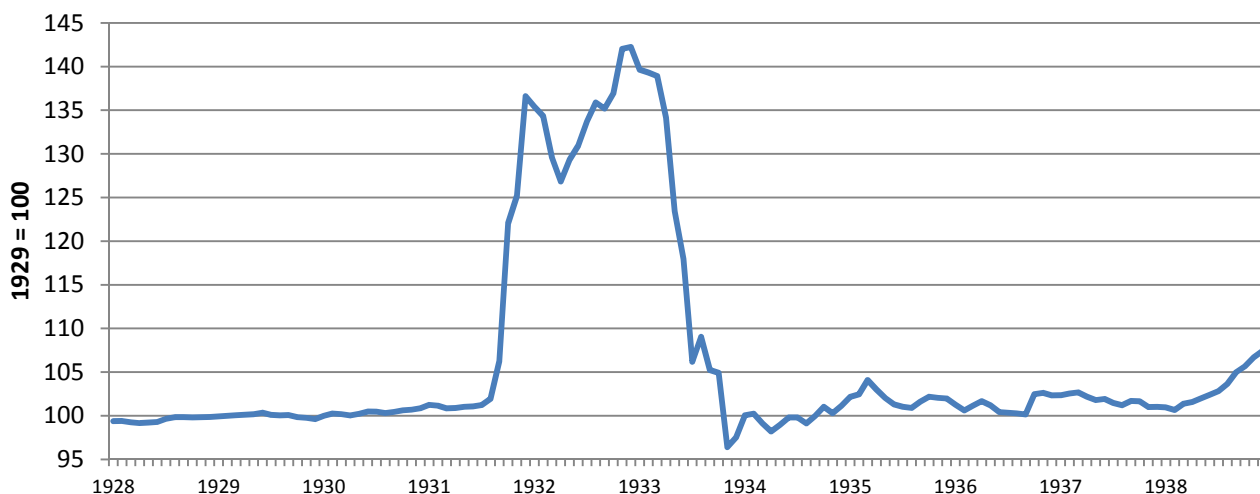


Source: Lipsey (1963, 152, 145).

One of the most important decisions affecting trade during this period was the Roosevelt administration's decision to go off the gold standard in April 1933. This step is often seen as key in shifting from a deflationary monetary policy to a reflationary monetary policy (Wigmore and Temin 1990). More than any other element of the New Deal, this one policy action may have been responsible for the economic recovery that began in the second quarter of 1933 (Romer 1992).

This decision also allowed the dollar to depreciate against other foreign currencies, potentially stimulating exports and discouraging imports. The depreciation of the dollar against other major currencies eliminated the price advantage that sterling bloc countries after they left the gold standard in late 1931. As Figure 3 shows, the depreciation of the dollar eliminated a significant handicap that affected U.S. exports to sterling-bloc countries and other markets between the last quarter of 1931 through the first quarter of 1933.²

Figure 3: Trade-Weighted Nominal Foreign Exchange Value of the Dollar



Source: Calculated from Board of Governors of the Federal Reserve System (1943).

In any event, it appears that the Roosevelt administration had mixed success expanding U.S. trade during the 1930s.³ Just as the domestic economic recovery was still incomplete by 1939, so was the recovery in trade.

² Unpublished estimates by Solomos Solomou show that real exchange rates behaved similarly.

³ Of course, the international economic environment, particularly for trade in goods, was very poor in the 1930s due to the spread of protectionism; see Irwin (2012).

3. The Effects of the RTAA on U.S. Trade

The Reciprocal Trade Agreements Act was signed into law by President Roosevelt in June 1934. Up to the outbreak of World War II in Europe in September 1939, the United States negotiated xx trade agreements with foreign countries.

The RTAA was an innovative piece of legislation. Since the establishment of the Constitution in 1789, Congress had the sole authority to adjust import duties, culminating in the Smoot-Hawley tariff of 1930. Throughout this long period, the president had very little say over the direction of U.S. trade policy.

Meanwhile, the executives of other countries had the authority to negotiate with other countries and reach trade agreements for economic or diplomatic reasons. As foreign trade barriers and policies that discriminated against U.S. trade arose in the early 1930s, the U.S. share of world trade fell from xx percent in 1928 to xx percent in 1933 partly as a result of these barriers. The U.S. government was institutionally ill-equipped to deal with the situation. While the president could always negotiate a trade treaty with another country and submit it to the Senate for approval, this was impractical for several reasons. First, the treaty would require a 2/3rds majority in the Senate to be approved, making it easy for opponents to block. (In fact, the Senate had almost never approved such a trade treaty in the past.) Second, the treaty would also have to pass the House of Representatives because it involved a revenue measure (duties on imports). Given that the chances of House and Senate approval were slim, particularly without amendment, no foreign country would be willing to negotiate with the president, who lacked any credibility that any agreement would take effect.

All of this changed with the RTAA. Congress gave its prior approval to any trade agreement reached by the president (that is, Congressional approval was not required) and the president was given the authority to reduce U.S. tariffs by as much as 50 percent. The tariff reductions would be applied on a most-favored nation (MFN) basis. In other words, the U.S. tariff reductions were non-discriminatory: imports from countries that lacked a trade agreement with the United States would still benefit from the lower tariffs. However, in any trade agreement, tariffs could only be reduced if that country was the “principal supplier” of the good in question. This rule tried to internalize the benefits of the agreement to the partner country and prevent spillover benefits to and free riding by non-partner countries.

The State Department was responsible for negotiating the trade agreements with other countries. The first trade agreement was reached with Cuba in August 1934. Eight additional agreements were concluded in 1935 and another six in 1936. Table 1 lists the trade agreement reached during the 1930s. The State Department looked for willing partners for such negotiations, but also rejected the initiation of some countries on political grounds. Duties were reducing cautiously, on commodities that were not in direct competition with domestic producers or other sensitive domestic interests.

Table 1: Trade Agreements, 1934-1939

Country	Signed	Effective
Cuba	Aug. 24, 1934	Sept. 3, 1934
Brazil	Feb. 2, 1935	Jan. 1, 1936
Belgium (and Luxembourg)	Feb. 27, 1935	May 1, 1935
Haiti	March 28, 1935	June 3, 1935
Sweden	May 25, 1935	Aug. 5, 1935
Colombia	Sept. 13, 1935	May 20, 1936
Canada	Nov 15, 1935	Jan. 1, 1936
Honduras	Dec. 18, 1935	Mar. 2, 1936
The Netherlands	Dec. 20, 1935	Feb. 1, 1936
Switzerland	Jan 9, 1936	Feb. 15, 1936
Nicaragua	March 11, 1936	Oct. 1, 1936
Guatemala	Apr. 24, 1936	June 15, 1936
France	May 6, 1936	June 15, 1936
Finland	May 18, 1936	Nov. 2, 1936
Costa Rica	Nov 28, 1936	Aug. 2, 1937
El Salvador	Feb. 19, 1937	May 31, 1937
Czechoslovakia	Mar. 7, 1938	April 16, 1938
Ecuador	Aug. 6, 1938	Oct. 23, 1938
United Kingdom	Nov. 17, 1938	Jan. 1, 1939
Canada (second agreement)	Nov. 17, 1938	Jan. 1, 1939
Turkey	Apr. 1, 1939	May 5, 1939
Venezuela	Nov. 6, 1939	Dec. 16, 1939

Source: U.S. Tariff Commission (1947).

This section addresses three questions: (1) how much did the trade agreements reduce U.S. tariffs during this period? (2) which countries concluded trade agreements with the United States? (3) what was the impact of the trade agreements on the pattern of U.S. trade?

The Impact of Trade Agreements on U.S. Tariffs

How much did the RTAA reduce U.S. tariffs during the 1930s? According to the U.S. Tariff Commission (1948, 16), the agreements reached under the reciprocal trade agreements program by 1947 reduced the average tariff on dutiable imports from 48.2 percent to 32.2 percent, based on imports in 1939. This is a reduction of 33 percent in import duties.

This estimate should be the best guess as to how much the average tariff was reduced. But other evidence suggest that it exaggerates the reduction, at least those taking effect prior to World War II.

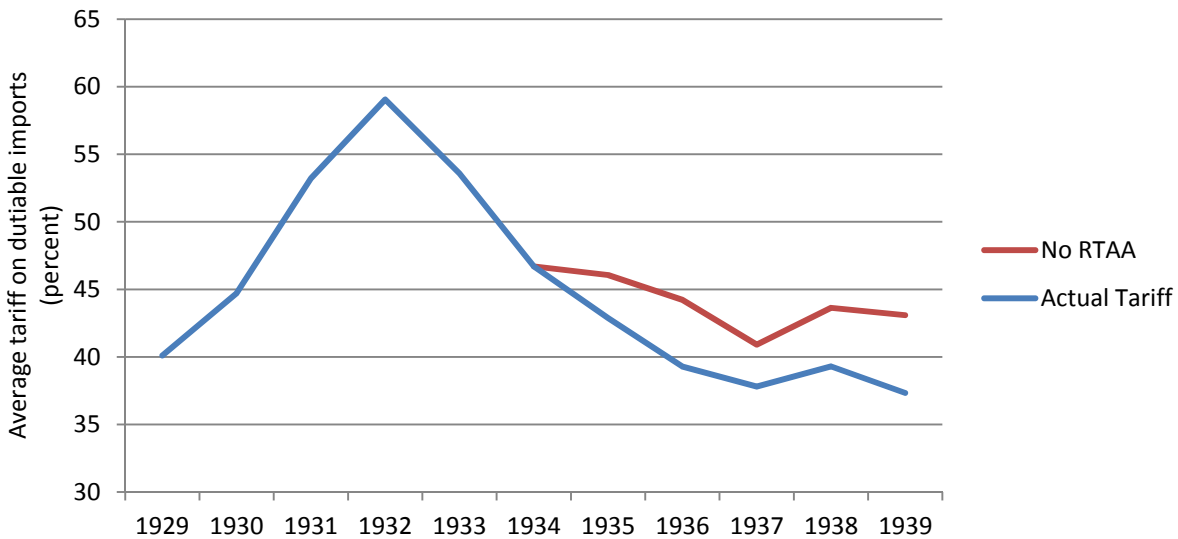
The average tariff on dutiable imports fell from 46.7 percent in 1934, when the RTAA was enacted, to 37.3 percent in 1939. This is a reduction of about 22 percent in the applied tariff and, if fully passed through to consumers, would reduce the price of imports by 7 percent. However, the impact of this tariff reduction on total U.S. imports is limited by the fact that only about a third of U.S. imports was subject to import duties at this time. Many raw materials (such as tin) and other consumer goods (such as coffee, tea, and bananas) entered duty free. Thus, the average tariff on total imports declined modestly, from 18.4 percent in 1934 to 14.4 percent in 1939.

Furthermore, only part of the reduction in the average tariff on dutiable imports can be attributed to reductions in import duties as a result of trade agreements. As Crucini (1994) and Irwin (1998) note, about two-thirds of U.S. import duties were specific duties (a dollar amount per imported quantity) rather than ad valorem duties (percentage of the value of imports). The ad valorem equivalent of specific duties is inversely related to the price of imports. Once deflation ended and import prices began to rise, the ad valorem equivalent of the specific duties would naturally decline.

In fact, import prices rose 11 percent between 1934 and 1939. Irwin (1998) estimated that a ten percent increase in import prices would reduce the average tariff on dutiable imports by six percent. This implies that higher import prices would have reduced the average tariff by 7 percent, or 3.3 percentage points, independent of any trade agreement reached. Since the actual decline in the average tariff is 10 percentage points, this implies that a third of the tariff's reduction from 1934 to 1939 can be attributed to trade agreements. Therefore, of the actual decline in the tariff of 9.4 percentage points, 6.1 percentage points was due to trade agreements and 3.3 percentage points was due to import price inflation.

If this calculation is correct, Figure 4 shows how much the tariff would have declined due to higher import prices even without any trade agreements program.

Figure 4: Counterfactual Level of U.S. Tariff on Dutiable Imports



What was the impact of this tariff reduction on U.S. imports? If the lower tariffs were fully passed through to import prices, the tariff reduction attributable to the RTAA would have reduced the price of dutiable imports by about 4 percent. The effect on the volume of imports would depend upon the price elasticity of import demand; if the elasticity was -1, then imports would rise 4 percent, whereas imports would rise by 8 percent if the elasticity were -2. The actual volume of imports rose 25 percent from 1934 to 1939, most of which was due to the growth in real GDP, so the RTAA probably made just a modest contribution to the recovery of trade after 1933.

These modest effects were by design. Hull instructed his department to undertake the tariff reductions with vigor but “gradually and with due care at every stage” (FRUS 1937, 1: 842). Hull was very cautious and did not want to harm powerful domestic interests and thereby spark Congressional opposition to the program. He sincerely viewed the program as designed to reduce excessive tariffs, not introduce free trade. Hull and his deputies went to great lengths to avoid affecting domestic producers by reducing tariffs more on imports that did not compete with domestic production. As Francis Sayre (1957, 170) recalled: “Our whole program was based upon finding places in the tariff wall where reductions could be made without substantial injury to American producers.” (One could also read “without substantial injury” as meaning “without arousing political opposition.”)

The extent of the tariff reductions varied considerably across commodities because the State Department negotiators had the discretion to choose where to make the cuts, avoiding politically sensitive industries wherever possible.

Whom Did the United States Choose as RTAA Partners?

For the trade agreements to have a significant impact on its exports and imports, the United States had to reach agreements with the country's most important trading partners. Table 2 lists the top 10 most important markets for U.S. exports and sources of U.S. imports. A distinction is made between the country sources of total imports and dutiable imports. Sizeable imports of duty-free raw materials came from such countries as Japan (silk), Malaysia (rubber), and Brazil (coffee). Imports from these countries would not be significantly affected by the trade agreements. However, dutiable imports came from Cuba (sugar) and developed European countries (the United Kingdom, Germany, France, Italy, the Netherlands, etc., which sent manufactured goods to the United States). The tariff reductions in the trade agreements would affect these countries more significantly.

Table 2: Major U.S. Trading Partners, 1928

	Exports	Share	Imports	Share	Dutiable Imports	Share
1.	Canada	18	Canada	12	Cuba	13
2.	United Kingdom	17	Japan	9	United Kingdom	12
3.	Germany	9	United Kingdom	9	Canada	9
4.	Japan	6	Germany	5	Germany	9
5.	France	5	Malaysia	5	France	8
6.	Argentina	3	Brazil	5	India	6
7.	Italy	3	Cuba	5	Italy	6
8.	Netherlands	3	France	4	Netherlands	4
9.	Australia	2	China	3	China	3
10.	Cuba	2	Mexico	3	Japan	3
	Total	68	Total	61	Total	73

Source: Statistical Abstract of the United States (1930), pp. 510-515.

By 1939, the United States had concluded trade agreements with half of the countries in the top 10 export markets and top 10 sources of dutiable imports. The major excluded countries were Germany, Japan, and Italy, the future Axis powers. Thus, it appears that the United States chose to negotiate trade agreements with its friends and did not seek such agreements with its future enemies. Many of the agreements were with smaller, friendly European countries (Sweden, the Netherlands, Belgium, Finland, Switzerland) and smaller, neighboring Central American countries (Cuba, Haiti, Colombia, Honduras, Nicaragua, Guatemala, Costa Rica, El Salvador, Ecuador). No agreements were reached with more authoritarian regimes, such as Argentina and Spain.

This general pattern suggests that the regime-type (friendly democracies) and distance to the United States (Central American countries) would be important determinants of whether a trade agreement was reached. Since many large trading partners were excluded from agreements for political reasons, such as Germany and Japan, the value of bilateral trade may not have been an important determinant of whether an agreement was reached.

Table 3 explores these hypotheses more formally by reporting the results from a probit regression in which the dependent variable is an indicator of whether the United States ever signs a trade agreement (before 1939) with the country. The first column finds that the foreign country's political regime (the polity indicator) is significant: the more democratic the foreign country's regime, the more likely the United States will sign a trade agreement with that country.⁴ The second column includes additional controls for distance and foreign country GDP, two important determinants of the value of bilateral trade. Distance is statistically significant whereas GDP is not; the fit of the regression is greatly improved. In column 3, the United States appears not to have necessarily signed trade agreements with countries simply because the value of bilateral trade was high. In column 4, we see that another factor, contiguity, in addition to political regime and distance, is an important determinant of the RTA partners.

Table 3: Determinants of Partners for Reciprocal Trade Agreements

	1	2	3	4	5
Polity (1935)	0.02** (0.01)	0.03** (0.01)	0.02* (0.01)	0.02** (0.01)	0.02** (0.01)
Log of distance	--	-0.76** (0.23)	--	-0.57** (0.18)	-0.78** (0.18)
Log of GDP	--	-0.05 (0.06)	--	--	--
Log of Trade	--	--	0.04 (0.04)	--	--
Contiguity	--	--	--	--	-0.29** (0.09)
Percent Correctly Predicted	63%	80%	67%	71%	78%
N	51	45	51	51	51
Pseudo R ²	0.08	0.38	0.09	0.29	0.39

*significant at the 10 percent level; **significant at the 5 percent level
Robust standard errors in parenthesis.

⁴ The polity variable ranges from -10 (authoritarian) to +10 (democracy) and is available at <http://www.systemicpeace.org/polity/polity4.htm>

The success of these variables in predicting which countries the United States reached trade agreements with bodes well for their use as an instrument to control for the potential endogeneity of trade agreements in a regression on trade flows. The decision to conclude a trade agreement does not hinge on the trade flows themselves, and may be exogenous to those trade flows, but depends upon political and geographic factors. Of course, those geographic factors influence trade, but in a first-difference regression (i.e., the change in trade), fixed effects such as distance and contiguity drop out.

How Much Did the RTAs Affect the Pattern of U.S. Trade?

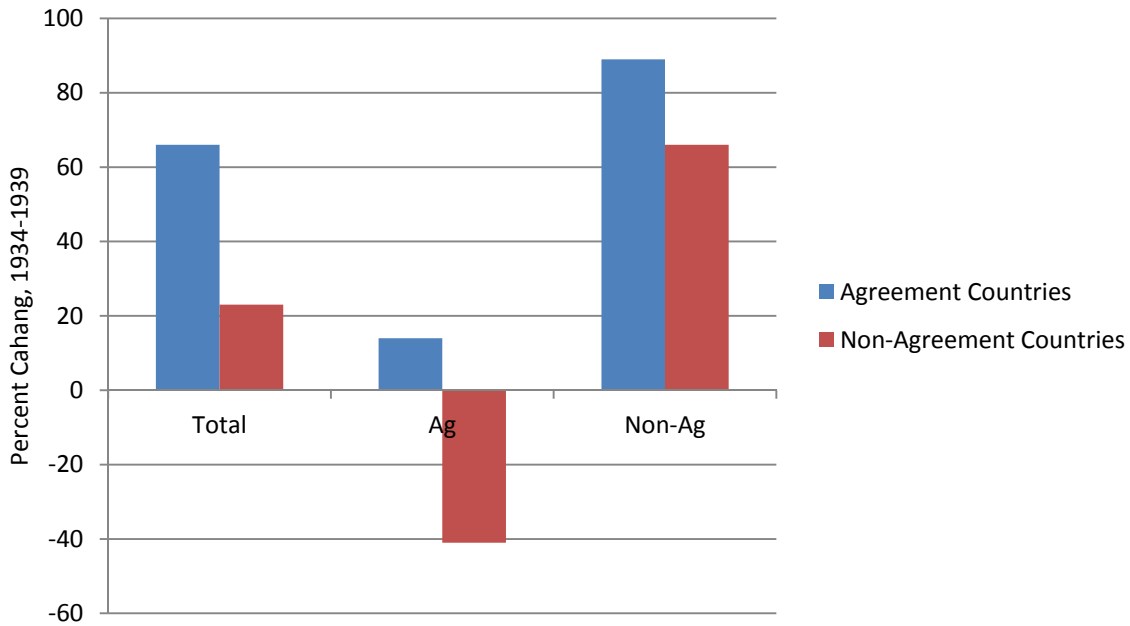
What effect would we expect the reciprocal trade agreements to have on the pattern of U.S. exports and imports? The impact of exports and imports was not necessarily symmetric. Because the U.S. tariff concessions were mostly extended to all countries on an MFN basis, U.S. imports would not necessarily be greater from countries with whom the United States reached trade agreements. At the same time, the tariff reductions on particular products were provided to the principal suppliers, so there should be some tendency to import more from countries with trade agreements.

In terms of exports, we would expect to see an increase in exports to trade agreement countries. First, other countries did not adhere to the MFN clause as closely as the United States did, and hence the tariff concessions were not necessarily generalized to other countries. Unfortunately, details on the extent and type of foreign tariff reduction are unavailable. Second, the United States was signing agreements with countries that were politically friendly, other democracies and allies. It could be that worsening political relationships as the 1930s continued would shift trade toward these friends and away from others, such as the future Axis powers.

The few previous attempts to explore the impact of trade agreements on the pattern of U.S. trade, such as Durand (1937), Tasca (1938), and Beckett (1941), only examine the average growth in total U.S. exports and imports by trade agreement and non-trade agreement groups. (Calculations by the Department of Commerce on the same theme were also published in *Commerce Reports*.) Generally these studies find that exports and imports increased more to countries with whom the United States had a trade agreement.

For example, Figure 5 shows that U.S. exports to agreement country were significantly higher by 1939 than exports to non-agreement countries. Much of the difference was due to agricultural exports, which fell 40 percent to non-agreement countries but increased slightly to agreement countries. The gap in the growth of non-agricultural exports to both sets of countries was much narrower.

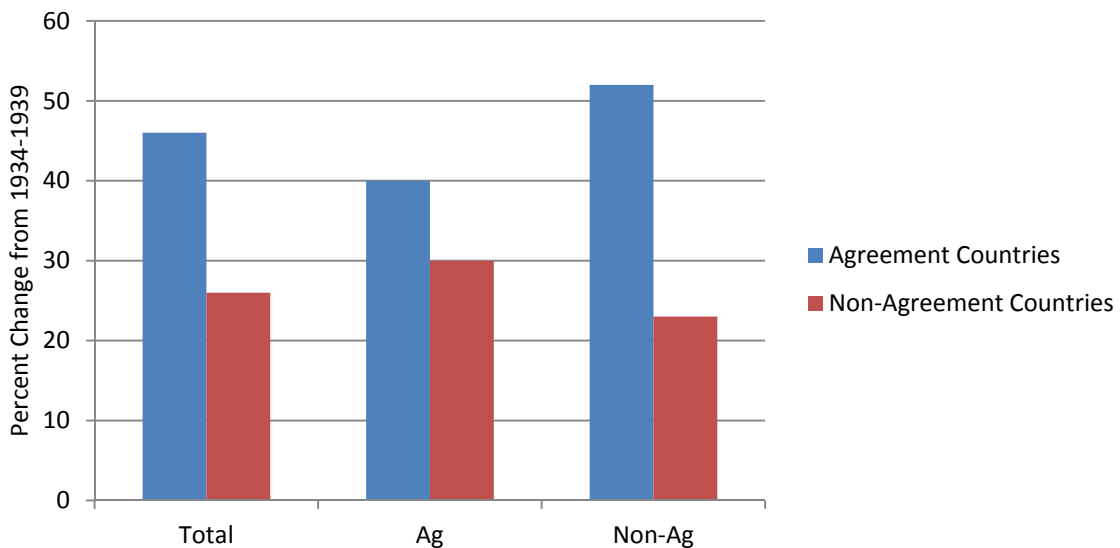
Figure 5: U.S. Exports to Agreement and Non-Agreement Countries, 1934-39



Source: Committee on Ways and Means (1943, 23)

Figure 6 shows that U.S. imports from agreement countries grew much more than imports from non-agreement countries. This also shows that imports grew more rapidly with trade agreement countries than others.

Figure 6: U.S. Imports from Agreement and Non-Agreement Countries, 1934-39



Source: Committee on Ways and Means (1943, 24)

These charts provide suggestive evidence for the conclusion that the trade agreements succeeded in expanding U.S. trade with partner countries. However, the evidence is not definitive because other factors could be affecting the trade flows, such as partner country growth rates. In addition, the differential growth in imports could reflect trade diversion, that is, the sourcing of imports from partner countries at the expense of non-partner countries, rather than trade creation.

A more formal way of examining the impact of trade policies on the pattern of trade is to employ the gravity equation. The gravity equation typically fits bilateral trade flows across countries to the country-pair's GDP and the distance between them. A dummy variable is used to indicate a trade or currency arrangement between a country pair. Gravity equations have been estimated using trade flows for the 1930s by Eichengreen and Irwin (1995), Ritschl and Wolf (2010), and Gowa and Hicks (2011). Remarkably, these studies all reach similar conclusions about the pattern of interwar trade, that trade and currency blocs apparently had little impact on trade flows. Most of them do not even bother examining the reciprocal trade agreements program because it is thought to have had little impact on trade in comparison to other arrangements at the time, such as the sterling and gold bloc countries and Britain's Imperial preferences.

This paper will look more closely at U.S. trade flows alone to see if the patterns evident in Figures 5 and 6 are robust to the inclusion of other controls. In taking such an approach, Baier and Bergstrand (2007) argue that one must control for the endogeneity of trade agreements. They find that controlling for the endogeneity of the trade agreement significantly increases the magnitude of its estimated impact on trade. They also argue that a single year cross section is not a reliable method of evaluating the impact of trade agreements. In using panel data, they suggest, it is preferable to rely on first differencing the data, rather than using fixed effects, to handle the potential unobserved heterogeneity in trade flows (making the error terms correlated over time) and get around the fact that trade and GDP data are near unit root processes.

Therefore, the basic specification that will be estimated here is:

$$\Delta (\log x_i) = \alpha + \beta_1 \Delta (\log y_i) + \beta_2 RTA_i + \varepsilon_i$$

where $\Delta (\log x_i)$ is the change in the value of U.S. exports to country i between 1934 and 1938 or 1939, i.e., $\log (X_i)_{1938/9} - \log (X_i)_{1934}$, $\Delta (\log y_i)$ is the change in country i 's real GDP between 1934 and 1938 or 1939, RTAA is a dummy variable indicating whether a reciprocal trade agreement was in effect by the end of 1937, and ε_i is an error term. Because of the lack of data for many countries, the only control will be the growth in partner country GDP between the two periods. The value of U.S. exports is taken from the *Statistical Abstract of the United States* and the value of the foreign country's real GDP is taken from Maddison.

Because this is a first-difference specification, many unchanging factors that might influence the level of trade, such as distance and contiguity, drop out and can be used as explanatory variables for the (endogenous) decision to enter a trade agreement. The instruments

for the reciprocal trade agreement come from Table 3, column 4, and include the polity variable for political regime, distance, and contiguity. These instruments are plausibly correlated with the decision to conclude a trade agreement and uncorrelated with the error term in the above equation (that is, unrelated to the change in trade between two years). It is certainly the case that distance and contiguity should not be related to the change in trade between two years; the political regime variable may be correlated with the change in trade if poor political relations led to a relative decline in bilateral trade.

Results for 1938

Table 4 presents the estimation results. Column 1 reports OLS estimation of the above equation. The change in foreign income explains most of the change in U.S. exports; exports to countries with trade agreements increase three percentage points faster than exports to non-agreement countries, but the effect is not statistically significant. One potential problem with these results is that all countries are weighted equally; therefore, a large percentage increase in exports to a small country (Honduras) is weighted the same as a small percentage increase in exports to a larger country (United Kingdom). Column 2 weights the observations by the log of U.S. exports to that country in 1928. The coefficient on trade agreements increases, but is still not significantly different from zero.

Column 3 accounts for the endogeneity of the RTA by using two-stage least squares, with the instruments reported above. Both unweighted and weighted results are reported. The first-stage F statistic is 15, easing some concerns about weak instruments. However, the IV coefficient on trade agreements is only slightly greater than the respective OLS coefficient, although the coefficients are still not statistically significant. This could be due to the fact that IV estimation is often imprecise, or heterogeneity in the treatment effect. The latter is quite plausible because the trade agreements were not all the same (some were much more extensive than others) and therefore should be expected to have different effects on bilateral and overall trade.

Two additional test statistics are presented. First, the test for the exogeneity of the trade agreements dummy variable indicates that we cannot reject the hypothesis that the trade agreements were exogenous. In that case, OLS would prove to be a more efficient estimator and IV would be unnecessary. Second, the test for overidentifying restrictions indicates that at least one of the instruments is exogenous.

Table 4: Effect of RTAs on Change in U.S. Exports, 1934-38

	1	2	3	4
	OLS	OLS-weighted	IV	IV-weighted
$\Delta (\log y_i)$	1.97* (0.65)	2.00* (0.63)	1.93* (0.66)	2.05* (0.61)
RTAA	0.03 (0.16)	0.07 (0.14)	0.07 (0.21)	0.14 (0.21)
N	46	46	44	44
F	4.7	4.9		
First-stage F			15.2	15.9
Exogeneity test (χ^2)			0.18 (p=0.66)	--
Test of overidentifying restrictions (χ^2)			2.54 (p=0.28)	--

Table 5 reports results for U.S. imports. Here the results indicate that there was no systematic tendency for the United States to import more from trade-agreements countries. This could be because the trade agreements had little effect on imports, or because the MFN tariff reductions did not differentially increase imports from partner as opposed to non-partner countries.

Table 5: Effect of RTAs on Change in U.S. Imports, 1934-38

	1	2	3	4
	OLS	OLS-weighted	IV	IV-weighted
$\Delta (\log y_i)$	0.94* (0.62)	0.90* (0.59)	0.87 (0.69)	0.86 (0.65)
RTAA	-0.04 (0.15)	0.01 (0.12)	-0.23 (0.24)	-0.16 (0.19)
N	46	46	44	44
F	1.8	1.8		
First-stage F			15.2	16.1

Exogeneity test (χ^2)			0.28 (p=0.66)	--
Test of overidentifying restrictions (χ^2)			2.54 (p=0.28)	--

Results for 1939

The United States experienced a severe recession in 1937-38 that may have affected the trade statistics for that year. The advantage of looking at trade flows in 1939 is that economic conditions were more normal during that year, and the trade agreements had an additional year to take effect, although trade was also disrupted by the looming European war.

Tables 6 and 7 replicate the regressions above using 1939 trade instead of 1938. The results are quite different for exports. While it is not precisely estimated, the coefficient on trade agreements is now much larger than before. Both the weighted estimates and the IV estimates are larger than the plain OLS estimate. This suggests that U.S. exports to agreement countries did increase more rapidly than other exports, although there must remain some uncertainty about how strong this effect was.

Table 6: Effect of RTAs on Change in U.S. Exports, 1934-39

	1	2	3	4
	OLS	OLS-weighted	IV	IV-weighted
$\Delta (\log y_i)$	0.12 (0.70)	-0.07 (0.78)	0.20 (0.67)	0.07 (0.72)
RTAA	0.25 (0.19)	0.32 (0.20)	0.41 (0.67)	0.50 (0.33)
N	44	44	41	41
F	1.9	2.3		
First-stage F			16.3	16.3
Exogeneity test (χ^2)			0.96 (p=0.32)	--
Test of overidentifying restrictions (χ^2)			0.32 (p=0.85)	--

Table 7 reports results for U.S. imports. As before, the results indicate that there was no systematic tendency for the United States to import more from trade-agreements countries. This could be because the trade agreements had little effect on imports, or because the MFN tariff reductions did not differentially increase imports from partner as opposed to non-partner countries.

Table 7: Effect of RTAs on Change in U.S. Imports, 1934-39

	1	2	3	4
	OLS	OLS-weighted	IV	IV-weighted
$\Delta (\log y_i)$	-0.11 (0.71)	-0.25 (0.76)	-0.24 (0.77)	-0.36 (0.79)
RTAA	-0.07 (0.19)	0.01 (0.19)	-0.23 (0.32)	-0.10 (0.31)
N	44	46	41	41
F	0.1	1.8		
First-stage F			16.3	18.6
Exogeneity test (χ^2)			0.28 (p=0.66)	--
Test of overidentifying restrictions (χ^2)			2.54 (p=0.28)	--

4. The Trade Impact of Other New Deal Programs

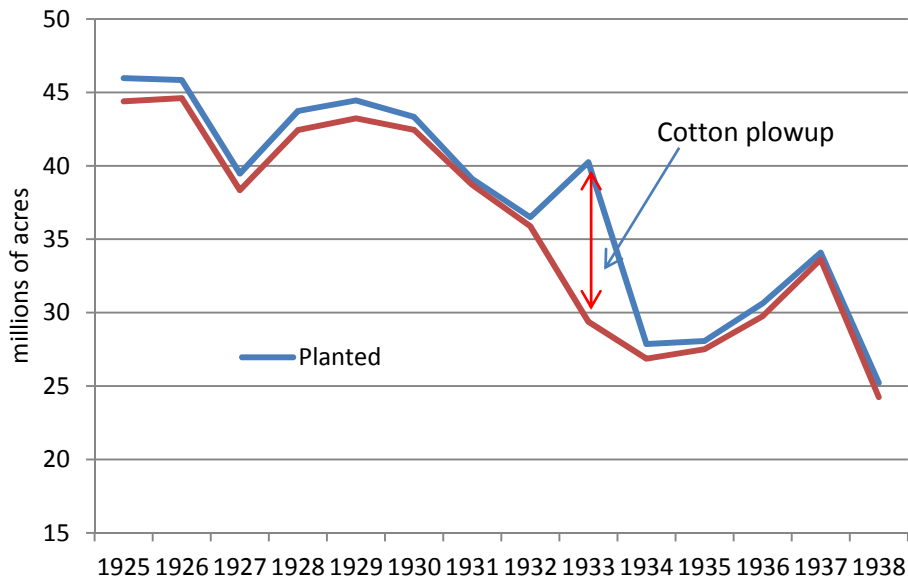
While the Reciprocal Trade Agreements act sought to expand U.S. foreign trade, other New Deal programs restricted U.S. trade. In particular, Agricultural Adjustment Act of 1933 (and its subsequent incarnations) sought to reduce agricultural production in an effort to increase domestic prices, but in so doing also reduced agricultural exports. In addition, the National Industrial Recovery Act of 1933 gave the administration the authority to impose import quotas on any foreign goods that interfered with price codes established by industry.

The AAA and Agricultural Exports

The impact of the AAA on agricultural exports can be illustrated by the case of cotton. In 1929, cotton accounted for about 16? percent of the value of total U.S. exports. In addition, xx percent of U.S. production of cotton was exported in that year.

This (uncompleted) section will try to estimate the impact of the acreage reduction on cotton exports.

Figure 7: U.S. Cotton: Acres Planted and Harvested, 1925-1938



The NRA and Import Quotas

To be completed. (Whittlesey 1937).

5. Conclusions

Although foreign trade was a small part of the U.S. economy in the early 1930s, the Roosevelt administration sought to expand trade, both exports and imports, as part of the economic recovery effort.

The tentative conclusion of the analysis here is that this effort was a mixed success. The reciprocal trade agreements appear to have had a modest impact in reducing the average tariff level. There is no effect on the pattern of trade in 1938, but by 1939 U.S. exports appear to have expanded more to agreement countries. (Furthermore, it should be noted that even if its economic impact in the 1930s was limited, the RTAA made possible the lower tariffs of the 1940s and 1950s, and secured the entire postwar system of open trade.) In addition, the AAA

adversely affected agricultural exports, which at the time comprised a significant share of U.S. exports. Therefore, the record of trade expansion during the decade is very mixed.

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Table 3: Imports of Commodities subject to Rates of Duty reduced by Trade Agreements, by tariff schedule, 1939.

Based on reductions in effect Feb. 1, 1943.

Tariff Schedule	Value of dutiable imports, 1939 (millions)	Proportion Subject to reduced rates	Equivalent ad valorem on imports subject to reduced rates		Average reduction in rates
			Pre-agreement rates	Agreement rates	
1. Chemicals, oils, and paints	\$56.6	43	32	20	36
2. Earths, earthenwares, and glassware	\$25.4	24	38	25	35
3. Metals and manufactures of	\$89.7	70	43	26	39
4. Wood and manufactures of	\$17.0	85	20	10	49
5. Sugar, molasses, and manufactures of	\$90.5	93	74	37	50
6. Tobacco and manufactures of	\$36.0	100	76	57	25
7. Agricultural products and provisions	\$173.8	68	43	23	46
8. Spirits, wines, and other beverages	\$59.1	94	113	57	50
9. Cotton manufactures	\$27.3	37	39	28	29
10. Flax, hemp, jute, and manufactures of	\$54.8	39	37	21	42
11. Wool manufactures	\$49.3	56	79	54	32
12. Silk manufactures	\$5.3	40	59	45	23

Tariff Schedule	Value of dutiable imports, 1939 (millions)	Proportion Subject to reduced rates	Equivalent ad valorem on imports subject to reduced rates		Average reduction in rates
			Pre-agreement rates	Agreement rates	
13. Manufactures of rayon or other synthetic textile	\$10.2	7	94	77	18
14. Paper and books	\$11.50	54	24	15	36
15. Sundries	\$133.3	38	36	24	34
Free list subject to excise tax on importation	\$38.1	80	26	13	50
Total	\$877.7	63	56	32	43

Source: House Report 409, 78th Congress, 1st Session, 22-23.