The United States in a New Global Economy? A Century's Perspective

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President Bill Clinton once described the objective of his economic policies as to help the United States "compete and win" in "a new global economy" (*Public Papers of the Presidents of the United States,* 1994 pp. 206–14 [remarks at American University]). While the notion that international commerce is all about "competing" and "winning" has been assailed (with gusto) by Paul Krugman (1994), the phrase "a new global economy" is equally worthy of reflection and scrutiny. Indeed, over the past several years, the term "globalization"—the theme of this year's AEA meeting—has rapidly entered into the popular vocabulary on economic issues. The term, of course, reflects the nearly universally held perception that the United States has entered into an unprecedented era of integration with the world economy. But is this fin-de-siècle perception accurate?

Perhaps the best answer is that given by Sir Humphrey Appleby, the wily chief civil servant in the brilliant BBC series *Yes, Minister,* who would inevitably reply to questions from his political superior by stating "Yes and No, Minister." This equivocation comes naturally to economists whose sense of history includes an awareness that the late 19th century was characterized by the substantial international mobility of goods, capital, and labor. Between 1914 and 1945, the course of world economic integration was rudely set back, partly because of two wars straddling a depression and an outbreak of protectionism. Over the postwar period, the United States has been gradually moving "back to the future," returning to, and perhaps surpassing, the degree of economic integration with the rest of the world last seen in 1913.

To assess the proposition that there is "a new global economy," this paper briefly compares the U.S. involvement in the world economy in the late 20th century with that in the late 19th century. Is there something fundamentally different about the current economic interactions of the United States with other countries? Or are they simply a continuation of events experienced a century ago?

I. International Trade

Does America engage in significantly more trade now than it did a century ago? The standard approach to this question—looking at exports as a share of gross national product—suggests not. In 1889, merchandise exports as a share of GNP stood at 5.6 percent. In 1989, this share stood at 7.1 percent—hardly a dramatic change.[1] (Because merchandise trade imbalances tend to be relatively small percentages of GNP, the calculation changes little if one instead uses imports as the basis of comparison.)

Such an historical comparison is useful in correcting two common exaggerations about the modern period. First, the figures suggest that there has not been a spectacular change over time in the degree to which the United States has been engaged in trade. This serves as an implicit reminder that international trade is not a new economic activity but one that has been carried on for centuries. Second, the size of the figures appears to be relatively small, both then and now, compared to the popular attention that trade usually receives. The numbers belie claims that exports are the key to

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[1] For the source of these figures, see Table 1. The more frequently cited figure today is exports of goods and services as a share of GDP, which was 9.6 percent in 1989. These figures are calculated using nominal values; real values show a slightly greater increase over time due to the slower rate of increase in the price of tradables.

"economic success" for a large country such as the United States.

This calculation, however, is misleading in one important respect: it is sensitive to what is in the denominator. When GNP is disaggregated by industry, it typically includes the following sectors: agriculture (including forestry and fisheries); mining; construction; manufacturing; transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; other services; and government. Of these categories only agriculture, mining, and manufacturing really produce merchandise goods that enter into standard trade statistics. Over the past few decades, the sectoral composition of nominal GNP has shifted away from the production of merchandise goods toward the production of services. This is the result of both the greater productivity in goods-producing sectors and a shift in demand toward services (including such things as government and health care).

Given these trends and the tendency of services not to be traded (although see footnote 4), one might expect the trade share to fall over time.[2] Even if it did fall, this shift could mask the growing significance of trade within the traded-goods sector. Perhaps a better indication of the importance of international trade is to consider merchandise exports as a share of the production of these tradable goods. Whereas merchandise exports amounted to 18.6 percent of GNP arising from agriculture, mining, and manufacturing just over a century ago, such exports amounted to 31.1 percent of such output in 1989.[3] (Again, the figures are similar for imports.) Farm exports comprised a significant proportion of agricultural production in late 19th century, and this situation is now shared by many manufacturing industries.

TABLE 1—MERCHANDISE EXPORTS AS PERCENTAGES OF TOTAL OUTPUT AND TRADABLES OUTPUT UNITED STATES, 1889–1990

	Merchandise exports	
Year	Percentage of GDP/GNP	Percentage of goods output
1889	5.6	14.3
1913	6.1	13.2
1929	5.2	13.9
1950	3.6	8.9
1960	3.8	11.0
1970	4.2	14.1
1980	8.3	29.2
1990	7.0	31.4

Sources: GDP and GDP by industry for 1950–1990 are from the *Economic Report of the President,* February 1995, Table B-11; merchandise exports are from Table B-105. GNP for 1889, 1913, and 1929 is from U.S. Bureau of the Census (1975), series F1; by-industry series F227, F228, and F230 for 1929, 1913 and 1889 are from U.S. Bureau of the Census (1949), series A154-164. Merchandise exports are from U.S. Bureau of the Census (1975), series U2.

Looking at exports as a proportion of goods production not only produces a larger number, but one that has increased nontrivially from a century ago. Table 1 presents these figures for the intervening years. The aggregate trade figures for 1889 are not much different from those for 1929. Comparing 1929 and 1950, one catches a slight glimpse of the interwar implosion of the world economy. In 1950, merchandise exports amounted to just 3.6 percent of GDP and just 8.9 percent of tradable goods output, much lower than before the depression and World War I. Twenty years later—in 1970—these figures had drifted upward, but the increase is not particularly stunning.

The biggest change happened during the 1970's, when exports by both measures doubled in share. What occurred by 1980 was not just a return to the prewar pattern, but a vast increase in the exposure of tradable goods industries to international competition. These industries operated in a much different environment in the 1970's and 1980's than they had in the 1950's and 1960's, or even in the 1890's or 1920's. Therefore, one could con-

[2] Harry Flam (1985) examined this "law of declining international trade" by studying a Heckscher-Ohlin model with rapid technological progress and rising capital intensity in tradables production and an increasing preference for nontraded goods. He finds, somewhat paradoxically, that the trade share may be expected to rise. The expansion in the nontraded sector strengthens the comparative advantage (and hence the specialization) of a capital-abundant country in the capital-intensive good.

[3] This should not be interpreted as indicating that nearly a third of goods output is exported, because GNP is calculated on a value-added basis while exports are the gross value (see the Bureau of the Census publication *U.S. Commodity Exports and Imports as Related to Output* [1993]).

TABLE 2—COMMODITY COMPOSITION OF U.S. TRADE, 1890 AND 1990

Year	Percentage distribution	
	Exports	Imports
Agricultural Goods:		
1890	42.2	33.1
1990	11.5	5.6
Raw Materials:		
1890	36.6	22.8
1990	11.6	14.8
Manufactures:		
1890	21.2	44.1
1990	77.0	79.6

Notes: Figures may not total to 100 due to rounding. Agricultural goods includes processed foods.
Sources: U.S. Bureau of the Census (1975), series U213–24; *Statistical Abstract of the United States* (1991 pp. 811–14).

TABLE 3—U.S. TRADE BY END-USE CATEGORY

Year	Percentage distribution	
	Exports	Imports
Consumer Goods:		
1929	27.5	33.5
1970	22.8	45.4
1990	24.1	38.6
Industrial Materials:		
1929	54.0	64.5
1970	31.6	37.8
1990	27.0	29.7
Capital Goods:		
1929	16.4	0.9
1970	39.0	13.2
1990	45.1	30.4

Sources: For 1929, U.S. Office of Business Economics, *U.S. Exports and Imports Classified by OBE End-Use Commodity Categories, 1923–68* (supplement to the *Survey of Current Business,* November 1970); for 1970 and 1990, *Survey of Current Business,* December 1971 and December 1991.

clude from these data that there is "a new global economy" for traded-goods producers, and not just from the perspective of the postwar generation whose experience does not include first hand knowledge of the pre-World War I world.[4]

This expansion in trade is largely in manufactures, as suggested by Table 2, which shows the commodity composition of U.S. trade now and a century ago. Whereas in 1890 the bulk of trade was in agricultural goods and raw materials, manufactured goods now constitute nearly 80 percent of exports and imports. Table 3, which breaks out U.S. trade by end-use category, shows that much of this is trade in intermediate components or middle products, as the share of capital goods (machinery, components, parts, etc.) has increased dramatically, even since 1970. The share of industrial (raw) materials has fallen over time, while that of final (consumer) goods has been relatively stable.

Yet this concern for the volume of international trade diverts attention from a truer measure of market integration—the equality of goods prices across markets. If competition ensures that the same price for the same good prevails in two markets, then the markets are effectively integrated, regardless of the actual volume of trade between them. In this regard, the late 19th century stands out as witnessing a dramatic convergence in the prices of traded goods between the United States and Europe, mainly the result of falling transport costs. For example, Jeffrey Williamson (1996) reports that the price of grain in Liverpool exceeded that in Chicago by about 60 percent in 1870, but this gap dropped to less than 15 percent by around 1912. In an extensive body of work with coauthors (summarized in Williamson [1996]), Williamson has shown how commodity price convergence explains about a third of the factor price convergence between the United States and the United Kingdom in the late 19th century. It is by no means clear that the postwar decline in tariffs has brought about as large a convergence in goods prices

[4] International transactions figure much less prominently in the services sector, which includes construction, transportation and public utilities, wholesale and retail trade, finance, insurance, and real estate, and other services. In 1960, exports of services amounted to 2.0 percent of output in these sectors. By 1990, this had more than doubled to 5.2 percent. These sectors may be affected more by direct investments from international competitors than by trade flows.

across markets as did the transportation cost declines of the late 19th century.

II. International Factor Mobility

The late 19th century was not just a period of substantial international trade but of international factor mobility as well. Through most of the late 19th century, as in the 1980's, the United States was a net recipient of capital from abroad. Lance Davis and Robert Cull (1994) report that net foreign capital imports amounted to 8–10 percent of net capital formation for the United States during 1881–1990. By contrast, net foreign investment amounted to nearly a third of net private domestic investment over 1981–1990.[5] But just as trade volumes do not measure integration in terms of goods prices, net capital flows say little about capital-market integration in terms of asset prices.

Under the classical gold standard of the late 19th century, international capital mobility was remarkably free from government interference. The gold standard operated efficiently, with the spot exchange rate rarely hitting the gold export/import points. Although short-term U.S. nominal interest rates generally exceeded those in Britain in the decades prior to World War I, Charles Calomiris and R. Glenn Hubbard (1996) show that rates of return were similar after adjusting for transactions costs and the risk of silver monetization in the United States.

The integration of U.S. and British capital markets was abetted by the opening of the trans-Atlantic telegraph cable in July 1866. This innovation sped the flow of information between the two markets. After the opening of the cable, investors could find price information and execute orders with just a one day delay rather than the three weeks by ship it had taken previously. This led to a dramatic convergence in the price of many assets, such as U.S. Treasury debt, which were traded in both the New York and London financial markets. As a result of this sharp reduction in transactions delays, Kenneth Garbade and William Silber (1978) find that the trans-Atlantic cable reduced price differentials on comparable assets between the two markets by a more substantial magnitude than have more recent innovations in communication technology that reduced such delays from hours to minutes.

Although the United States has traditionally maintained few restrictions on international capital flows, foreign controls necessarily affect U.S. participation in the world capital market. In the interwar period, governments introduced capital controls that partially reversed the integration of world financial markets. Such capital controls muted net capital flows and lingered well into the postwar period as part of the Bretton Woods system of fixed exchange rates. Richard Marston (1993) documents how these capital controls led to substantial covered interest differentials between the United States and major European countries in the 1950's and 1960's.

With the advent of floating exchange rates, these capital controls were gradually relaxed in the 1970's and 1980's. As a result, the United States returned to the high degree of world capital market integration it had had under the gold standard. Quantifying this proposition is difficult because, as Morris Goldstein and Michael Mussa (1993) observe, there is no single metric of international capital market integration. But just as the aggregate trade figures mask a substantial amount of trade as a share of traded-goods production, the aggregate indicators of capital mobility which indicate broad comparability with a century ago mask a significant change. A century ago, capital mobility was limited (by present day standards) to a relatively narrow set of assets, such as railroad bonds. Davis and Cull (1994) note that only about 100 stock issues were traded on the New York exchange in 1880, although this number tripled by 1910. There are simply many more financial instruments available today than a century ago, and lower transactions costs have expanded the range of potential international asset holdings.

The United States has also been a net recipient of labor from abroad over the past century. Immigration, however, was clearly a much more significant factor for the U.S. economy in the late 19th century than it has been in recent decades. During 1881–1890, the average

[5] This statement is based on the *Economic Report of the President* (February 1993) tables B-18 and B-14.

annual rate of immigration was 9.2 per 1,000 of U.S. population, peaking at over 10 during the first decade of the century. By 1890, 14.5 percent of the population was foreign-born. A century later, during 1981–1990, the average annual rate of immigration was 3.1 per 1,000 of U.S. population, with 7.9 percent of the population foreign-born in 1990.[6]

The mass migration to the United States a century ago contributed importantly to factor-price convergence as trade proved to be an imperfect substitute for factor mobility. Jeffrey Williamson (1995) argues that the real wage convergence among New World countries (the United States, Canada, Australia, and Argentina) and a sample of Old World European countries that started in the mid-19th century and continued through the century was considerably more dramatic than the convergence in per capita GNP and was probably more dramatic than that seen in the period since 1950.

Williamson (1996) has also calculated that the additional supply of labor brought about through immigration had a much more significant (ceteris paribus) negative effect on real wages in the United States than do the estimated effects of recent immigration. This led to political pressures in favor of restricting immigration; these eventually succeeded in the 1910's and 1920's.

III. Conclusions

As this survey indicates, the proposition that there is "a new global economy" is not obvious. While the degree of labor mobility in the late 19th century clearly exceeded that of today, international trade and capital-market integration appears only slightly more extensive over the past decade or so than it was over several decades a century ago. However, broad measures of integration mask what is arguably the much greater depth and diversity of trade and capital-market integration today. This survey also points in the direction of government policies (commercial policies, capital controls, and immigration restrictions) as having broken up what would have been a more continuous process of linking the United States with the rest of the world. These interruptions made the postwar period seem more remarkable than it really has been.

[6] Source: *Statistical Abstract of the United States,* 1991 pp. 9, 54.

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