Globalization has become a buzzword of the new millennium. It is viewed as the cause of many of the world’s problems as well as a panacea. The debate over globalization is manifest in public demonstrations against the World Trade Organization (WTO) in Seattle in the fall of 1999, against the Summit meetings in Quebec and Genoa this year, and against several annual meetings of the International Monetary Fund (IMF) and World Bank. It also has led to a spate of scholarly and not so scholarly books on the subject.

I define globalization as the increasingly close international integration of markets for goods, services, and factors of production, labor and capital. Economists have long touted the advantages of free trade, open capital markets, and international migration in producing an optimal allocation of the world’s resources. But while the economic benefits in the long run are generally agreed upon, many fear globalization because of the changes it brings.
in the structure of national economies and a reduction in the living standards of some groups in society while others gain. They also resent the fact that decisions made in other countries impact their lives.

In May, 2001 NBER held a major conference in Santa Barbara, California to debate these issues. The theme of the conference was globalization in historical perspective, and all of the papers presented were written from the perspective of the grand sweep of economic history to provide a long-run background for today’s issues. This paper summarizes what we learned at the NBER conference about globalization within the context of an extensive literature on the subject.

In the next section, I discuss the basic dimensions of globalization in the long run: the patterns observed of international integration (disintegration) over the past two centuries and even earlier in the markets for commodities, labor, and capital (finance). The record reveals two ages of pervasive globalization: from the mid-nineteenth century until 1914 and since the early 1970’s. In between, the process unraveled in the face of two world wars and the Great Depression. I then consider evidence of the effects of globalization on the historical real economic performance of nations and on the issue of winners versus losers.

The discussion then turns to the role of financial factors in globalization: the international exchange rate regime, financial development, financial crises, and international monetary reform. The paper concludes with a discussion of the backlash that arose against the earlier era of globalization that ended with World War I and considers the prospects for a repeat performance today.

The Dimensions of Globalization

International Trade

The state of the evidence on the integration of commodity markets is summarized in the conference paper by Findlay and O’Rourke (2001). Two dimensions of globalization are considered: (a) growth of international trade relative to population and income and (b) convergence in the prices of traded commodities. On both dimensions, although the process of international integration began with the opening up of the world in the Age of Discovery in the sixteenth century, the major spurt in globalization didn’t really occur until after the Napoleonic wars. The growth of trade from 1500 to 1800 averaged a little over one percent per year, while population grew at 0.25 percent. Between 1815 and 1914 trade (measured by exports) grew by 3.5 percent per annum versus real income growth of 2.7 percent. Figure 1 shows that aggregate trade growth was similar in the twentieth century but did not outpace the growth of output to the same extent as in the previous century.

Commodity price convergence was also dramatic in the nineteenth century. For example, because of massive declines in transportation costs (steamships and railroads) the price of wheat in Liverpool relative to Chicago fell...
from fifty-eight percent in 1870 to sixteen percent in 1913. Similar convergence was the case for many other countries.

In addition to falling transport costs, globalization in trade was spurred by big reductions in tariff protection, beginning with Britain’s reduction of the corn laws (tariffs on grain) after the Napoleonic wars and culminating in their abolition in 1846. The movement towards free trade spread across Europe in a series of reciprocal trade agreements beginning with the Cobden Chevalier Treaty of 1860 between Britain and France. Within the next two decades virtually all of Europe reduced tariffs (to the ten-to-fifteen percent range from about thirty-five percent) in a series of bilateral agreements incorporating Most Favored Nation clauses. (See Figure 2) The liberalization process was reversed after 1879 with the introduction of tariffs by Germany and France and then other countries, although the level of effective protection (with the principal exception of the U.S.) remained low by twentieth century standards until 1914.

Tariffs were raised in a backlash by landowners against declining wheat prices and land rents. With World War I, and then the Great Depression, trade collapsed in the face of rising tariffs and quotas. Trade and globalization revived after World War II with the GATT (General Agreement in Tariffs and Trade), which was created by the international community—along with the IMF, World Bank, and other industrial organizations. Successive rounds of tariff negotiations from 1947 to the present have virtually eliminated tariffs on manufactured goods in advanced countries (Figure 2). The WTO, which succeeded GATT in 1994, is currently engaged in reducing non-tariff barriers and protection in areas not covered by GATT. As can be seen in Figure 1, by the 1970s the ratio of trade to GDP reached the levels of the earlier age of globalization. However, convergence in commodity prices, according to Findlay and O’Rourke, may not be as close today as before 1913.

Like the commodity markets, international migration surged in the nineteenth century, declined after World War I, and has since rebounded. Chiswick and Hatton (2001) summarize the state of our knowledge on this topic. Before the nineteenth century, migration from the Old to the New World went through three stages: 1600-1790 slaves and contract labor; 1790-1850 free settlers; 1850-1920 mass migration. In the case of mass migration from Europe to primarily the U.S., Canada, Australia, and Argentina, 300,000 per annum moved between 1850 and 1880, 600,000 between 1880 and 1900, and over a million between 1900 and 1910. (See Figure 3.) The waves of migration largely reflected economic factors (higher wages in the New World and reduced transportation costs).

As in the case of commodity markets, a backlash ensued in the face of declining real wages in the New World. Restrictions on immigration began in the 1890s, culminating in a virtual shutdown by the 1920s. Many of these restrictions were not removed until after World War II. Today, although the absolute number of people moving to the U.S., Canada and Australia are similar to the pre-1913 period, the immigration rate for the U.S. is considerably lower than earlier, at 0.4 people per 1000 now versus 11.6 then. Also, as shown in Figure 3, the proportion of foreign born in the U.S. is less at ten percent now versus fifteen percent then.

Other key differences between the two ages of migration include a major change in the source of migration to the New World—from Europe then to Asia and Latin America now—and the fact that today’s legal migrants are much more highly skilled than their pre-World War I predecessors. Chiswick and Hatton speculate that the trend towards complete integration in the international markets for skilled labor will continue, as will the unsuccessful attempts to keep out unskilled labor.

**Capital Flows**

Like the markets for goods and labor, international financial markets enjoyed two eras of globalization, from...
1870 to 1914 and since 1973. That is, the pace of international integration of finance (capital), as in the other markets, follows a U-shaped curve, with integration interrupted by the imposition of capital controls and other impediments in the era of the World Wars, the Great Depression, and Bretton Woods system. The evidence on financial market integration is surveyed by Obstfeld and Taylor (2001) and by Bordo et al. (1998, 1999).

Obstfeld and Taylor have compiled the existing data on the stocks of foreign assets relative to world GDP as well as foreign liabilities relative to GDP at benchmark years over the period 1825 to the present. The sample of countries covered before 1914 are many of today’s advanced countries and a number of other countries. The picture portrayed by this data, although it is fragmentary for the early years, is a U-shaped pattern. At its pre-1914 peak, the share of foreign assets to world GDP was approximately twenty percent. It declined from that level to a low point of five percent in 1945, with the pre-1914 level only being reached by 1985. Since then, it has risen to fifty-seven percent. A similar picture emerges from the ratio of liabilities to world GDP.

The British held the lion’s share of overseas investments in 1914—fifty percent—followed by France at twenty-two percent, Germany at 17 percent, the Netherlands at three percent and the U.S. at 6.5 percent. This compares with the U.S. holding of global foreign assets in 1995 at twenty-four percent. These funds in turn represented up to one-half of the capital stock of one of the major debtors (Argentina) and close to one-fifth for Australia and Canada. Finally, the gross asset and liability positions were very close to net positions before 1914, in contrast to today where, for example, the U.S. is both a creditor and a debtor. This reflects the prevalence of unidirectional long term investment from the core countries of Europe to the countries of the recent settlement, such as Canada, Australia, and Argentina before 1914.

A similar pattern is prevalent in the net capital flows. The fifty years before World War I saw massive flows of capital from the core countries of Western Europe to the overseas regions of recent settlements (mainly the rapidly developing Americas and Australasia). At its peak, the outflow from Britain reached nine percent of GNP and was almost as high in France, Germany, and the Netherlands. Private capital moved essentially without restriction. Much of it flowed into bonds that financed railroads and other infrastructure investments and into long-term government debts. Figure 4 shows five-year moving averages of the mean absolute value of the ratio of the current account balance to GDP for twelve countries. Figure 5 shows current account balances for one large capital exporter, the United Kingdom, one large capital importer,
Canada, and the largest “emerging market,” the United States. A striking feature of these data is the size and persistence of the current account deficits in the pre-1914 period, especially in Australia, Canada, Argentina, and the Nordic countries and of the current account surpluses of the UK and France.

For comparison, Figure 6 shows the mean absolute value of the ratio of the current account to GDP for twenty-three of today’s emerging markets (countries whose GDP exceeded 30 billion dollars and were classified as indebted countries by the World Bank), using data from the IMF’s international financial statistics for the period 1949—96. These countries have been running current account imbalances under the recent managed float that average 4.1 percent of their GDPs, which is similar to the average of the pre-war sample of 3.9 percent, which includes both capital importers and exporters. Other evidence for the U-shaped pattern includes convergence of interest rates before 1914 and post 1973, measured both by covered interest and real interest parity and savings-investment correlations.

Obstfeld and Taylor and others suggest that in some respects international financial markets were at least as much or more integrated before 1914 than today and that we are in a back-to-the future scenario. On the other hand, in many other respects international financial markets are clearly more integrated now than before 1914. One of these is the greater depth of markets, seen in the number and variety of lenders and borrowers and in the much wider range of securities traded and sectors financed. The vast majority of bonds sold before 1914 were railroad bonds and governments. Today, industry, finance, and the service sector in emerging markets are all important candidates for foreign portfolio investments. A second important development is the shift from debt to equity. Finally, foreign direct investment has expanded considerably from the free standing companies of the earlier era.

Bordo, Eichengreen and Irwin (1999) argue that these differences in the scope of market integration were consequences of information asymmetries, contracting problems, and macroeconomic risks that limited the extent of capital and commodity flows prior to 1914 and that continue to limit them, albeit to a lesser extent, today.
The Effects of Globalization

The broad patterns of globalization described above conceal significant differences in the fortunes of different countries and in the income distribution within countries. A number of papers at the NBER conference dealt with these issues. Delong and Dowrick (2001) build upon the recent growth literature and focus on the evidence on convergence between countries in historical context. They define convergence in terms of the ability of countries to reach the living standards, industrial structure, and productivity levels of the leading countries—Britain in the nineteenth-century and the U.S. in the twentieth.

They find that the pace of globalization has not been uniform—the list of globalization winners and losers has changed over time. This can be seen in a snapshot of the economic state of the world at four key dates. In 1850, the convergence club included Britain and some of Northwest Europe and the U.S. Northeast. By 1900, the first era of globalization, the club had expanded to include much of Western Europe, the countries of recent settlement, and Japan. In the inter-war period, the club expanded again to include much of Latin America, some of Africa, and the USSR. Finally, in the 1990s Latin America has left the club, as has Russia and all of Africa, while many East Asian countries have joined. What explains this pattern? According to Delong and Dowrick, a key factor for becoming a member is openness, while poverty traps, bad government, and all they entail may explain expulsion.

Two papers develop the theme of why some countries did better than others in the globalization game. Craft and Venables (2001) stressed the importance of geography within the context of recent new trade models. The shift of location of economic activity towards Northwest Europe and the later dominance of the U.S. can be largely explained by increasing returns to scale and market size.

Clark and Feenstra (2001) posit that an observed pattern of growing absolute divergence of real per-capita income across countries since 1800 reflects rising differences in total factor productivity over time. A comparison of per capita real GDP of different countries, taking India...
Globalization in Historical Perspective

... showed that the differential between India and the U.S. and Western Europe burgeoned from about three to about fifteen today, as shown in Figure 7. The reason for this enormous divergence, according to Clark and Feenstra, is that although globalization pre-1914 gave poor countries like India easy access to the technology of the core countries and to capital at close to world competitive interest rates so that they could adopt best practice machinery in textiles and other industries, labor productivity was so inefficient in these poor countries that it negated the potential gains of globalization.

Finally, Lindert and Williamson (2001) document the pattern of inequality since the nineteenth century within as well as between countries. They find that there are no clear trends over time in inequality within countries, but between countries inequality seems to be getting worse.

In the first era of globalization, inequality improved in Western Europe as a consequence of declining transportation cost and emigration. These forces increased real wages and reduced land rents, with the gains to labor offsetting the losses to land. The opposite set of forces were at work in the U.S. and other countries of recent settlement, in which inequality worsened.

Between countries, it is argued that the pattern of divergence would have been considerably worse in the absence of globalization because openness, as discussed above, is a key determinant of convergence. Indeed, Lindert and Williamson argue that a comparison of inequality today, measured by a Gini coefficient between the U.S. and the whole world, suggests great benefits if the world were as integrated as is the U.S. Thus, factors other than globalization—such as poor government, and low education levels—explain the rise in inequality.

The Role of Finance in Globalization

Policy Trilemma

Obstfeld and Taylor’s evidence of a U-shaped pattern in financial market integration, they argue, can be explained in terms of a policy trilemma between open capital markets, pegged exchange rates, and independent monetary policy. Only two of the three elements can hold at the same time.

The golden age of financial market integration and capital mobility described above was also the era of the classical gold standard. In that regime, member countries (most of the world) were locked together in fixed exchange rates by making their currencies convertible into gold. Credible gold standard adherence required subsuming domestic monetary and fiscal policy to the dictates of gold convertibility. The gold standard—by reducing exchange rate volatility, many argue—encouraged trade and globalization and also—by serving as a signal of sound finance—encouraged capital flows from the core to gold standard adherents in the periphery (Bordo and Rockoff, 1996).

The classical gold standard broke down with World War I, and capital mobility ended with capital controls. It was briefly restored as the Gold Exchange Standard in the 1920s. However, the breakdown of the international monetary system in the Great Depression led to massive capital controls. In the 1930s, and then under the Bretton Woods system, the move towards the pursuit of domestic goals such as full employment along with pegged exchange rates required the presence of capital controls. By the late 1960s, private capital flows resumed as a consequence of the restrictions of current account convertibility. This development revived the trilemma and, in the face of massive speculative attacks, led to its resolution by the abandonment of the Bretton Woods par-value system in 1973. Since then, capital controls have been eliminat-
ed in advanced countries and reduced considerably in the emerging nations. Floating exchange rates are compatible with monetary independence and an open capital account.

**Core vs. Periphery: Financial Development**

Bordo and Flandreau (2001) examine the exchange rate regimes in the two eras of globalization. They focus on the different experiences of core (advanced) and peripheral (emerging countries) then and now. They find that there always has been a tension between the two. Before 1914, core countries set the dominant regime, the gold standard; and peripheral nations tried hard to follow the orthodox financial policies needed to adhere to gold in order to get access to capital from the core at favorable rates. Often, they were unsuccessful and suffered financial crises, devaluations, and—because their foreign debts were denominated in gold or sterling—debt default. They were then faced with the hard choice of holding very large gold reserves, like today’s currency boards, or floating and not borrowing abroad. Today’s dominant regime is managed floating, and—as in the pre-1914 era—some emerging countries have not become sufficiently developed financially to float successfully. They need to dollarize or follow currency boards in an environment of open capital markets.

Sylla and Rousseau (2001), in a related paper, posit that financial development—defined as achieving a menu of sound public finance, a sound banking system, a central bank and financial markets—is an important pre-requisite to sustained economic growth. They show that this was the case in detailed case studies of the most successful countries that emerged to advanced country status: the Netherlands, Great Britain, the U.S. and Japan. They then buttress their case with a panel regression over the last century for a larger number of countries, such as Canada, Australia, the Scandanavian countries, and Italy. Moreover, they demonstrate that financially developed countries have easier access to international capital markets, as seen in the spreads between core and periphery countries’ bonds.

**Financial Crises**

The globalization of finance had its dark side, periodic financial crises when capital inflows abruptly reversed themselves in the face of shocks and bad policies. My research with Barry Eichengreen and others (2001) finds that the incidence of financial crises—both currency and banking—is actually greater today than pre-1914, as shown in Figure 8, although not greater than in the inter-war period. It also shows that this result is driven by the greater frequency of currency crises. But although there are more crises today than then, they are not worse in severity than pre-1914—particularly for the inter-war period. Also, in both globalization eras, crises are more of a problem for the emerging than the advanced countries. The worst type of crisis both then and now is a combined banking and currency crisis. Moreover, twin crises were worse then because central banks were not in place in many countries; and even if in place, they did not act as lenders of last resort.

Neal and Wiedenmeir (2001) document the financial crises of the pre-1914 era. They present evidence that crises often spread (were contagious) from the core to the periphery. However, Bordo and Murshid (2000) find that contagion has been less of a problem recently than in earlier times.

<table>
<thead>
<tr>
<th>Year Period</th>
<th>Banking Crisis (%)</th>
<th>Currency Crisis (%)</th>
<th>Twin Crises (%)</th>
<th>All Crisis (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880-1913</td>
<td>1.5</td>
<td>1.2</td>
<td>0.2</td>
<td>2.9</td>
</tr>
<tr>
<td>1919-1939</td>
<td>2.0</td>
<td>2.5</td>
<td>0.5</td>
<td>5.0</td>
</tr>
<tr>
<td>1945-1971</td>
<td>3.0</td>
<td>3.5</td>
<td>0.8</td>
<td>7.3</td>
</tr>
<tr>
<td>1973-1997</td>
<td>4.0</td>
<td>4.5</td>
<td>1.0</td>
<td>9.5</td>
</tr>
</tbody>
</table>

**FIGURE 8**

CRISIS FREQUENCY (PERCENT PROBABILITY PER YEAR)


**International Monetary Reform**

Finally, within the context of the checkered history of globalization and financial crises, Eichengreen and James (2001) ask the question: What were the conditions required for the nations of the world to agree to international monetary reform in order to preserve the momentum of globalization? Their survey of two centuries of financial history leads them to conclude that significant change only occurs when the world trading system, but not capital mobility, is threatened. Indeed, the one major episode of such reform resulted from the Bretton Woods conference in 1944, in the aftermath of the collapse of world trade during the Great Depression.

**The Backlash**

**The First Era of Globalization**

The first era of globalization ended badly with World War I, the Great Depression, and World War II. But even before its demise there was a considerable backlash against it. Recent books by O’Rourke and Williamson (1999) and James (2001) argue that the forces of globalization embodied the seeds of its own destruction. The consequence of trade and factor mobility in the Golden Age was the convergence of real wages and per capita real incomes between the core countries of Western Europe and much of the periphery. According to O’Rourke and Williamson (1999) and Williamson (1996), this reflected the operation of classical trade theory. Both factor flows and goods flow fostered factor price equalization. Most of the convergence in real wages (seventy percent) is explained by factor movements, especially by labor mobility, (with mobile capital a minor player); the rest (thirty percent), according to the Hecksher-Ohlin theorem, by international trade.

These forces had important effects on the distribution of income. The massive migrations in the 1870 to 1914 period reduced the returns to land owners in the land-scarce, labor-abundant countries of Europe and at the same time worsened the income distribution in the countries of recent settlement, as unskilled immigrants competed with more established workers for jobs.

A political backlash ensued in each region. In the Old World, landowners successfully lobbied for increased tariff protection of agriculture in the last two decades of the nineteenth century. In the U.S., Canada, Australia and Argentina, labor was ultimately successful in closing the doors to migrants by the second decade of the twentieth century. The backlash to globalization in turn may have fanned the flames of nationalism and been a key cause of World War I.

The Great Depression made things worse as nations—

in an attempt to protect themselves—raised tariff barriers and quotas, restricted immigration, and terminated capital movements.

We are now in another age of globalization. Are similar forces at work? A panel session at the NBER conference considered these issues. It was emphasized that—just as in the earlier age of globalization—there are winners and losers. Between countries, those that do not open up to trade and capital movements are the losers; while within the advanced countries, the losers are clearly unskilled labor. Some argued that political coalitions between labor, traditional protected industries, and new groups fearful of the perceived loss of control over their destinies and concern over the environment could also derail the current era.

Yet, there are key differences between the present era of globalization and the earlier one. The growth of international trade is more widespread than pre-1914, and hence the groups that may be harmed are outweighed by those that benefit. Moreover, today there are more escape valves in trade legislation to relieve trade pressure than earlier (Bordo, Eichengreen and Irwin 1999). Also unlike in the pre-1914 era, trade disputes can be resolved by multinational agencies such as the WTO, which were not present then (Irwin 1993). In addition, many countries have made progress in adopting policies to help the losers in the globalization game in the form of compensation packages and re-training schemes. Finally, most countries in recent years have learned to pursue stable macroeconomic policies—a sharp contrast to the unstable macro environment that led to the shutting down of the capital markets in the inter-war period.

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