

**DEALING WITH THE CHALLENGE OF
GLOBALIZATION: THE LONG VIEW**

*Professor Jeffrey G. Williamson
Laird Bell Professor of Economics
and Chairman of the Economics Department
Harvard University
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Biographical Note: A graduate of Wesleyan and Stanford universities, Dr. Williamson is currently Laird Bell Professor of Economics at Harvard. Author of 17 books and monographs and over 125 articles and book chapters, he has served as visiting scholar at universities and research institutes in North America, East Asia, Europe, Australia and Russia. Dr. Williamson has twice received the Galbraith Prize for the best teacher in the graduate Economics Program awarded by Harvard's graduate students.

Theory Needs History

Two important features of today's international economy characterized the late 19th century as well. First, the earlier period was one of rapid globalization: capital and labor flowed across national frontiers in unprecedented quantities, and commodity trade boomed as transport costs declined sharply. Second, the late 19th century underwent an impressive convergence in living standards, at least within most of what we would now call the OECD club. Poor countries at the periphery of the European club tended to grow faster than the rich industrial leaders at the center of the Old World, and often even faster than the richer countries overseas in the New World. Third, inequality was on the rise in the U.S. and the rest of the rich New World while it was falling in the poorest parts of the Europe. To what extent were globalization, convergence and inequality connected?

I will argue that most of the convergence between 1850 and

1914 was due to the open economy forces of trade and mass migration. I will by inference also suggest that convergence stopped between 1914 and 1950 because of de-globalization and implosion into autarchy. In addition, I will argue that a good share of the rising inequality in North America was due to globalization.

I start with the convergence evidence and then offer the open economy explanations for it. Then I turn to inequality.

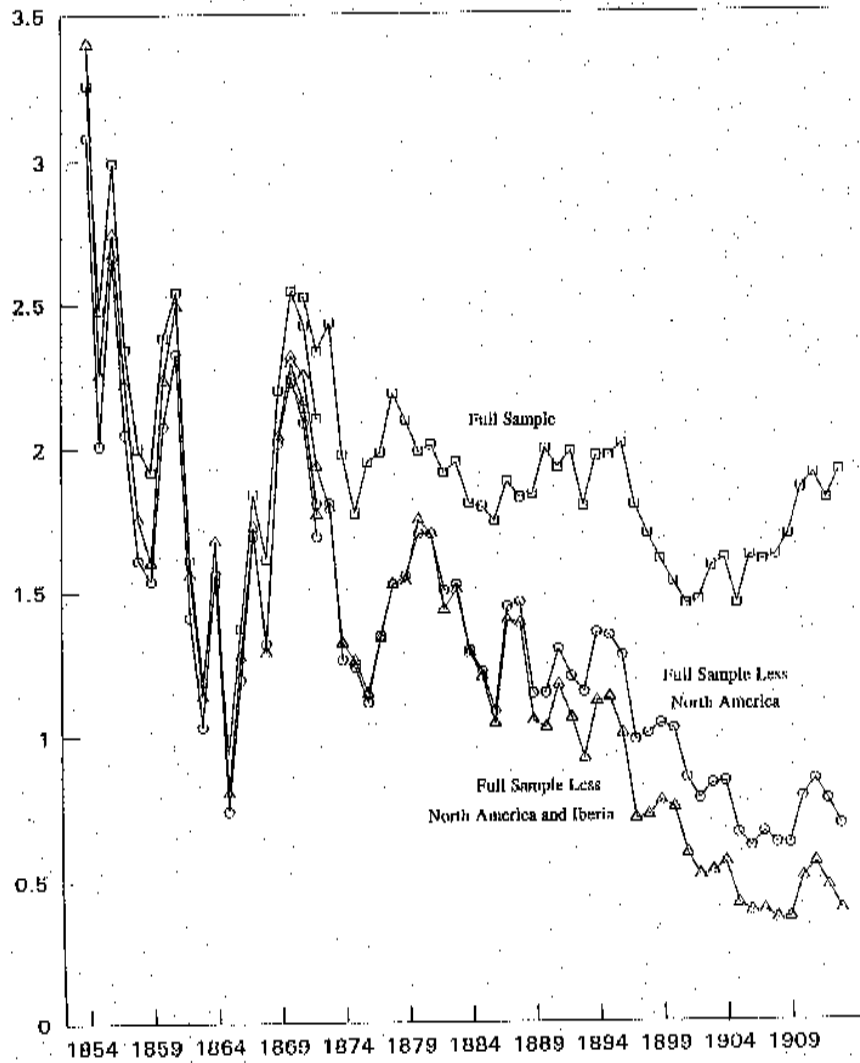
Convergence in the Past

What does history have to say about convergence? To answer that question, we first have to agree on the meaning of convergence. The critical bottom line for me is whether the living standard gap between rich and poor countries falls over time. Convergence implies an erosion in this gap, at least in percentage terms. Second, what history? My interest has always been in what Simon Kuznets called modern economic growth, and that translates here into the century and a half since about 1850. Third, convergence of what? GDP per worker-hour estimates offer one set of data. Real wages of the urban unskilled offer another. Fourth, convergence among whom? My net will only capture members of the present OECD club with European origin (plus Argentina and Brazil). Why the small net? Because I think the sources of convergence in the OECD club are themselves misunderstood, and it matters to get the facts right.

Figure 1 documents real wage convergence from mid-century to the Great War. It was pronounced, even when compared with the more familiar experience of past four decades. Gross domestic product per worker-hour also converged. However, real wage convergence was a lot faster than GDP per worker-hour or GDP per capita, and the globalization arguments which follow offer some reasons why.

While impressive, the late 19th century convergence implies that real wage gaps would still have persisted well into the present century even had the convergence not been interrupted: big initial gaps take a long time to erase, even when convergence is persistent. But it *didn't* persist: an anti-convergence regime intervened which

Figure 1
Real Wage Dispersion 1854-1913



stopped convergence between 1914 and 1950.

There are instructive country performances hidden by these summary statistics, especially the big North American outliers, Canada and the United States, both of whom buck the convergence tide. North America enjoyed a spectacular leap into industrial superiority after the early 1890s. The great leap forward is manifested by rich North America improving its advantage over the poorer industrial Old World after 1890: real wages in the United States were 72 percent higher than in Britain in 1870; that wage advantage had diminished to 63 percent by 1890, supporting convergence; but by 1913 the United States regained everything it had lost. Canada offers an even better example of North American resistance to convergence. Canada improved its real wage superiority from 48 percent above Britain in 1870 to 57 percent in 1900 and, riding the prairie wheat boom, to 123 percent in 1913.

This deviant North American behavior tended to retard the rate of convergence in the late 19th century. As Figure 1 shows, the full sample less North America converges faster than the full sample itself.

What about Europe? Given the great debate about Britain's loss of industrial leadership to her close competitors, most of us would look for evidence of, say, German catch-up on the leader. We'd be looking in the wrong place. What matters far more to European convergence is the performance of poor countries around the European periphery. Four of these poor countries improved their real wages relative to Britain and America: Denmark, Ireland, Norway and Sweden did so dramatically. Italy also made gains, but they were more modest and centered in the north. In contrast, Spain and Portugal lost a lot of ground. The poor Old World generally was catching up with the New World, exactly the experience we have seen since 1960.

So, while some countries were not part of the convergence, convergence there was in the late 19th century and it was almost as dramatic as the late 20th century. Now, why do I think globalization accounts for most of this convergence?

Globalization in Commodity Markets: The Factor-Price Convergence Theorem at Work

The factor-price-equalization theorem has been a durable tool for trade theorists ever since Eli Heckscher and Bertil Ohlin made their seminal contributions in 1919 and 1924. The Heckscher-Ohlin paradigm argues that countries export commodities which use intensively the factors in which they are well endowed while they import commodities which use intensively the factors in which they are poorly endowed. Let falling tariffs or transport costs equalize prices of the traded commodities, encouraging more trade. Countries will now export more of the goods which exploit their favorable factor endowment. The demand for the abundant and cheap factor booms while that for the scarce and expensive factor falls. Thus, commodity price convergence and trade booms tend to produce factor price convergence: for example, wages should rise in the poor country relative to the rich. It follows that trade can be a substitute for labor migration in generating wage or labor productivity convergence.

Heckscher and Ohlin were writing just after the spectacular late 19th century Scandinavian catch-up, and they were motivated by the commodity price convergence which they thought had taken place in the Atlantic economy. Their economic metaphor was driven by primary foodstuffs: the New World grain invasion, carried by the sharp decline in transport costs, served to lower the relative price of grains in Europe, and to raise it in North America. Liverpool grain prices exceeded Chicago prices by about 60 percent in 1870 while they exceeded Chicago prices by less than 15 percent in 1912. The price convergence was also manifested by meat, dairy products, industrial raw materials and manufactures.

These forces generated very big price shocks, exactly the kind which are supposed to set factor-price convergence in motion, and a computable general equilibrium (CGE) model is precisely the tool to use to assess that alleged impact. When you do, commodity price convergence explains more than a third of the decline in the Anglo-American real wage gap over the quarter century ending in 1895. Because of powerful offsetting forces, Anglo-American convergence

stopped after the early 1890s even though the factor-price-convergence effect of commodity trade persisted. Commodity price convergence played a significant role in fostering real wage convergence up to 1895, and afterwards in muting the powerful divergence forces set in motion by industrial success in North America. But overall, the contribution of trade to Anglo-American real wage convergence is pretty modest. What happens when the sample is expanded to include not just the United Kingdom and the United States, but also Australia, Sweden, Denmark, Germany and France? The bottom line is that the trade boom can explain at most only a quarter of convergence, and probably only 15-20 percent or maybe even less.

Trade *was* a substitute for factor flows in the late 19th century, but it was hardly a perfect substitute. Imperfect substitute or not, there are three corollaries suggested by this historical theorem. First, countries which raised high barriers to trade were less likely to be part of the convergence. Second, the move to autarchy after 1914 must have contributed to the observed cessation in convergence. Third, the gradual reconstruction of world commodity markets since 1950 must have contributed to the resumption of convergence.

So say the lessons of history regarding globalization in commodity markets. What about factor markets, and mass migrations in particular?

Globalization in Labor Markets: Mass Migration and Convergence

In its 1911 *Report*, the U.S. Immigration Commission concluded that new immigrants displaced American laborers and undercut their living standards. The literature which followed largely discredited the *Report* for its racial overtones, its selective collection of data, and its sloppy analysis, but the Commission's big question lingers on, even in the March primaries south of your border: Did immigrants crowd out residents and lower their living standards? If the answer to this first question is yes, then did New World immigration and Old World emigration contribute substantially to global convergence?

True, analysts then and now have focused their attention on

the Commission's views on assimilation. Yet the real political obsession of that time was instead the macro impact of the immigrants on American employment conditions, living standards and wages. Oddly enough, historians had ignored the question until only very recently.

One way to isolate the impact of immigration is to estimate the wage adjustment mechanism from time series. This has been done recently on annual U.S. observations for 1890-1913. The econometric results were excellent, and their implication was that the 1913 real wage would have been 5 or 6 percent higher in the absence of net immigration.

A second way to evaluate the effects of international migration is by using a computable general equilibrium model. CGEs have certainly been used before to analyze both contemporary and historical migration problems. Twenty years ago, I applied a CGE to the late 19th century United States, estimating that immigration after 1870 lowered real wages in 1910 by 11 percent. Cutting this old estimate of mine in half to make it comparable with the shorter time series period suggests something like 5-6 percent, almost identical to the time series estimate.

A more recent study has confirmed these figures: the real wage in the United States would have risen additionally by about 9 percent in 1910 without any more immigrants after 1870.

Meanwhile, what was the impact of emigration on European labor markets? Surely the departure of the movers improved economic conditions of the stayers faster than would have been true without emigration — raising real wages, lowering unemployment and eroding poverty by more. Thus, mass migration tended to create economic convergence among the participating countries — living standards in the poor emigrating countries tended to catch up with living standards in rich immigrating countries. Not all countries participated, some had offsetting influences, and some had more induced catch-up than others, but the underlying tendencies must have been pervasive.

Exactly how pervasive? To answer this question, we asked another: what would have been the measured convergence 1870-1910

had there been no mass migration? The answer is that mass migration accounted for 70 percent of the real wage convergence between 1870 and 1910, leaving approximately 30 percent to other forces, some of which being the trade forces stressed by Heckscher and Ohlin.

Mass migration explains a large share of the convergence observed in the late 19th century. More generally, globalization explains almost all of it. Let me turn now to another, more politically-loaded, question.

Is Convergence a Good Thing?

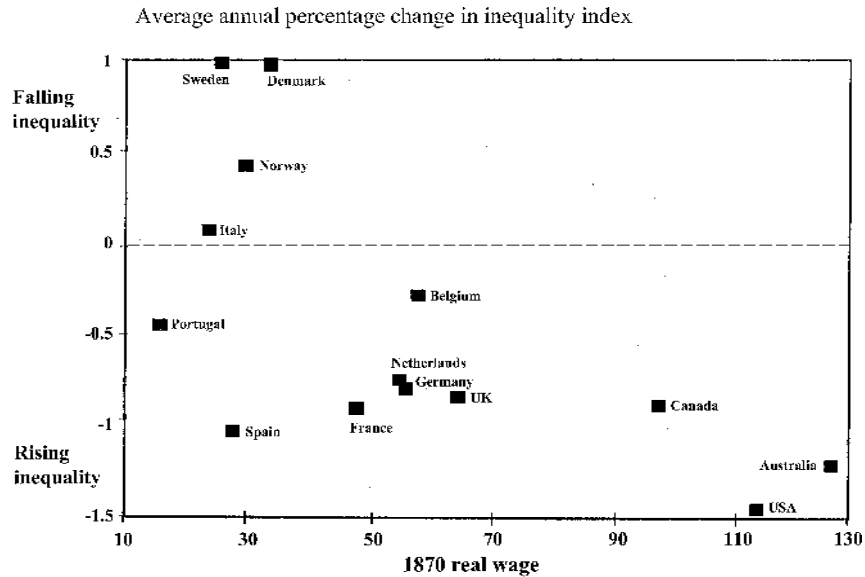
What is now called the new growth theory has shown very little interest in who gains and who loses from convergence. The theory tends to be highly aggregative, and its empirical applications deal with coarse aggregates like gross domestic product per worker. What about wages of unskilled laborers, wages of skilled artisans, salaries of skilled clerical workers, farm rents accruing to landlords and profits accruing to capitalists? What about returns to sector-specific resources and capital?

Does everyone gain from convergence? If not, who gains and who loses? This debate has been heating up amongst today's policy analysts, and it has now penetrated the Presidential campaign south of the border. Low-skill labor in America and Europe has not shared in the growth since 1970. Inequality is on the rise, a dramatic reversal of trends between 1929 and 1970. How much of these inequality trends is due to the demands generated by technological change and how much by globalization?

The same questions can be posed of the late 19th century. Did inequality rise in rich countries and fall in poor countries? If so, was globalization the cause?

First, inequality rose in rich countries and fell in poor, as Figure 2 shows. Second, about half of this experience can be explained by technological forces and half by globalization forces. But mass migration was the globalization force that was doing most of the work.

FIGURE 2: Initial real wage vs. inequality trends, 1870-1913



Note: Real wage in 1870 relative to an index where United Kingdom = 100 in 1905.

Does Convergence Seed Its Own Destruction?

Do pro-globalization policies persist, thus accommodating convergence, or do anti-globalization policies emerge, thus choking it off?

Globalization and convergence had a predictable influence on income and wealth: some gained and some lost. One would have expected increasingly loud political complaints from the losers. One would have expected emerging political alliances and stronger lobbying favoring policies to protect the losers. If the losers were able to persuade the rest that de-globalization was the only “fair” way to ease their economic damage, tariffs would have risen and migration restrictions would have been imposed. Can the timing and magnitude of immigration restrictions after the 1890s in the United States, more manipulative immigration policies in Canada to raise skills, changing immigrant subsidies in Australia and Brazil, the alliance between iron and rye in Germany, and rising protection elsewhere

on the Continent be explained, at least in part, by the forces of convergence that had been taking place since the mid-19th century? Can the autarchic de-globalization from World War I to 1950 be explained, at least in part, by the same political economy dynamic? I think so.

As economic stress mounts in the 1990s, we need to understand far better the switch from globalization and convergence up to World War I to de-globalization and divergence up to 1950. Was the switch at least in part a product of the convergence itself? I think so. Can we expect the same over the next quarter century? I don't know.

Can America (and other rich industrial countries) mute the impact of globalization on inequality, without retreating behind tariffs, quotas and tighter immigration restrictions? I think so. One way to do it is to speed up the rate of exit of "natives" from the unskilled jobs where the competition with unskilled immigrants is most intense, and where the competition with imports produced by foreign unskilled labor is most intense. America did this very well in the late 19th century. Are we doing as well in the 1990s? I don't think so.

I leave you with this lesson from history: globalization will be tolerated in industrial societies which give unskilled and un-schooled citizens the resources to move up the skill ladder out of harm's way. Whether we will do so in the next decade will be dictated by politics, not economic theory.

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