

# Is Protection Bad for Growth? Will Globalization Last? Looking for Answers in History

by

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## **Globalization and World Inequality**

Globalization in world commodity and factor markets has evolved in fits and starts since Columbus and de Gama sailed from Europe more than 500 years ago. This paper begins with a survey of these fits and starts so as to place contemporary events in better perspective. It then explores the connection between globalization and world inequality. Who gained and who lost from globalization? That question can be split into three more: What happened to income gaps between nations? What happened to income gaps within nations? What happened to world inequality? Work with Peter Lindert stresses the third question (Lindert and Williamson 2002a, 2002b), but this paper stresses the first two, the reason being that answers to these two have more relevance for policy and for the ability of a globally-integrated world to survive. Indeed, at various points in the paper, I ask when there has been global backlash in the past – driven by complaints of the losers, and whether and how the complaints of the losers were accommodated by the winners.

Recent scholarship has documented a dramatic divergence in incomes around the globe over the past two centuries. Furthermore, all of this work shows that the divergence was driven overwhelmingly by the rise of between-nation inequality, not by the rise of inequality within nations (Berry et al. 1991; Maddison 1995; Pritchett 1997; Bourguignon and Morrisson 2000). Figure 1 uses the work of François Bourguignon and Christian Morrisson to summarize these trends, and it confirms that changing income gaps between countries explains changing world inequality. However, the fact that the rise of inequality within nations hasn't driven the secular rise in global inequality hardly implies that it has been unimportant. After all, policy is formed at the country level, not the world level. Furthermore, the absence of a net secular change in within-country inequality at the global level may simply reveal an equilibrium process whereby rising within-country inequality breeds policy responses that return the distribution to some culturally-acceptable steady state. That level may be far higher in the United States

than in Japan, to take two modern economic giants as examples.

I start by decomposing these five centuries into four distinct globalization epochs. Two of these were pro-global, and two were anti-global. I then explore whether the two pro-global epochs made the world more unequal, and whether it produced a backlash.

## **Making a World Economy**

### ***Epoch I Mercantilist Restriction 1492-1820***

The Voyages of Discovery generated a transfer of technology, plants, animals and diseases on an enormous scale, never seen before and maybe since. But the impact of Columbus and da Gama on trade, factor migration and globalization was a different matter entirely. For globalization to have an impact on relative factor prices, absolute living standards and GDP per capita, trade-creating forces must alter domestic commodity prices. True, there was a world trade boom after 1492, and the share of trade in world GDP increased markedly (O'Rourke and Williamson 2002a). But was that trade boom explained by declining trade barriers and global integration? A pro-global decline in trade barriers should have left a trail marked by falling commodity price gaps between exporting and importing trading centers, but there is absolutely no such evidence (O'Rourke and Williamson 2002b). Thus, 'discoveries' and transport productivity improvements must have been offset by trading monopoly markups, tariffs, non-tariff restrictions, wars, and pirates, all of which served in combination to choke off trade.

The fact that trade should rise as trade barriers fall is, of course, the rationale behind using trade volumes or the share of trade in GDP as a proxy for international commodity market integration. Indeed, several authors have used Angus Maddison's (1995) data to trace out long-run trends in commodity market integration since the early nineteenth century, or even earlier (e.g. Hirst and Thompson 1996). However, global commodity market integration is not the only reason why the volume of trade, or trade's

share in GDP, might increase over time. Just because we see a trade boom doesn't necessarily mean that more liberal trade policies or transport revolutions are at work.

If it wasn't declining trade barriers that explains the world trade boom after Columbus, what was it? Just like world experience from the 1950s to the 1980s (Baier and Bergstrand 2001), it appears that European income growth -- or growth of incomes of the landed rich -- might have explained as much as two thirds of the trade boom over the three centuries as a whole (O'Rourke and Williamson 2002a).<sup>1</sup> The world trade boom after Columbus would have been a lot bigger without those anti-global interventions. And labor migration and capital flows were, of course, only a trickle.

### ***Epoch II The First Global Century 1820-1913***

The 1820s were a watershed in the evolution of the world economy. International commodity price convergence did not start until then. Powerful and epochal shifts towards liberal policy (e.g. dismantling mercantilism) were manifested during that decade. In addition, the 1820s coincide with the peacetime recovery from the Napoleonic wars on the Continent, launching a century of global *pax Britannica*. In short, the 1820s mark the start of a world regime of globalization.

Transport costs dropped very fast in the century prior to World War I. These globalization forces were powerful in the Atlantic economy, but they were partially offset by a rising tide of protection. Declining transport costs accounted for two-thirds of the integration of world commodity markets over the century following 1820, and for *all* of world commodity market integration in the four decades after 1870, when globalization backlash offset some of it (Lindert and Williamson 2002a). The political backlash of the late nineteenth century and interwar period was absent in Asia and Africa -- partly

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<sup>1</sup> The causality is worth stressing here. While the modern globalization-inequality debate chases the causation from globalization to within-country inequality, the period 1500-1800 was characterized by population pressure on the land which raised land rents and thus the incomes of Europe's rich. Rising inequality increased the demand for imported luxuries, causing a trade boom. It also caused a boom in all well-placed European ports around the Atlantic economy. It seems to me that a recent paper by Acemoglu, Johnson and Robinson (2002) has the causality wrong.

because these regions contained colonies of free trading European countries, partly because of the power of gunboat diplomacy, and partly because of the political influence wielded by natives who controlled the natural resources that were the base of their exports. As a result, the globalization-induced domestic relative price shocks were even bigger and more ubiquitous in Asia and Africa than those in the Atlantic economy (Williamson 2002). To put it another way, commodity price convergence between the European industrial core and the Third World periphery was even more dramatic than within the Atlantic economy.

In short, the liberal dismantling of mercantilism and the world-wide transport revolution worked together to produce truly global commodity markets across the nineteenth century. The persistent decline in transport costs world wide allowed competitive winds to blow hard where they had never blown before. True, there was an anti-global policy reaction after 1870 in the European center but it was nowhere near big enough to cause a return to the pre-1820 levels of economic isolation. On the other hand, these events were met with rising levels of protection in Latin America, the United States, and the European Periphery, and to very high levels, as Figure 2 documents.

Factor markets also became more integrated world wide. As European investors came to believe in strong growth prospects overseas, global capital markets became more integrated, reaching levels in 1913 that may not have been regained yet (Obstfeld and Taylor 2002). International migration soared in response to unrestrictive immigration policies and falling steerage costs (Hatton and Williamson 1998), but not without some backlash: New World immigrant subsidies began to evaporate toward the end of the century and political debate over immigrant restriction became very intense (Goldin 1994; Timmer and Williamson 1998).

### ***Epoch III Beating an Autarkic Retreat 1913-1950***

The globalized world started to fall apart after 1913, and it was completely dismantled between the wars. The big pre-World War I productivity gains in transportation and communications did not

evaporate after 1913. Instead, new policy barriers were imposed restricting the ability of poor populations to flee miserable conditions for something better. Higher tariffs and other non-tariff barriers choked off the gains from trade. Thus, barrier-ridden price gaps between Atlantic economy trading partners doubled, returning those gaps to 1870 levels (Lindert and Williamson 2002a: Table 1). The appearance of new disincentives reduced investment in the diffusion of new technologies around the world, and the share of foreign capital flows in GDP dropped from 3.3 to 1.2 percent (Obstfeld and Taylor 1998: p. 359). In short, the interwar retreat from globalization was carried entirely by anti-global economic policies.

#### ***Epoch IV The Second Global Century 1950-2002***

Globalization by any definition resumed after World War II. It has differed from pre-1914 globalization in several ways (Baldwin and Martin 1999). Factor migrations are less impressive: the foreign-born are a smaller share of New World populations than they were in 1913, and capital exports are a smaller percentage of GDP in the postwar United States (0.5 percent in 1960-73 and 1.2 percent 1989-96: Obstfeld and Taylor 1998, Table 11.1) than they were in prewar Britain (4.6 percent in 1890-1913). On the other hand, trade barriers are probably lower today. These differences are tied to the policies of one dominant nation, the United States, which switched from a protectionist welcoming immigrants to a free trader restricting their entrance.

Ever since Heckscher and Ohlin wrote almost a century ago, their theory has taught that trade can be a substitute for factor migration. While modern theory is much more ambiguous on this point, history is not: in the first global century, before quotas and restrictions, factor mobility had a *much* bigger impact on factor prices and inequality than did trade (Taylor and Williamson 1997). Perhaps this explains why the second global century has been much more enthusiastic about commodity trade than about migration. In any case, I start with the more recent globalization experience, the second global century.

## **Did the Second Global Century Make the World More Unequal?**

### ***International Income Gaps: A Postwar Epochal Turning Point?***

The Bourguignon and Morrisson evidence in Figure 1 documents what looks like a mid-twentieth century turning point in their between-country inequality index, since its rise slows down after 1950. However, the Bourguignon and Morrisson long-period data base contains only 15 countries. Using postwar purchasing-power-parity data for a much bigger sample of 115, Arne Melchior, Kjetil Telle and Henrik Wiig (2000) actually document a *decline* in their between-country inequality index in the second half of the twentieth century. The authors show stability in between-country inequality up to the late 1970s, followed by convergence. Four other studies find the same fall in between-country inequality after the early 1960s (Schultz 1998; Firebaugh 1999; Boltho and Toniolo 1999; Radetzki and Jonsson 2000). Among these recent studies, perhaps the most useful in identifying an epochal regime switch is that of Andrea Boltho and Gianni Toniolo (1999), who show a rise in between-country inequality in the 1940s, rough stability over the next three decades, and a significant fall after 1980, falling well below its 1950 level.

Did the postwar switch from autarky to global integration contribute to this epochal change in the evolution of international gaps in average incomes?

### ***Trade Policy and International Income Gaps: Late Twentieth Century Conventional Wisdom***

Conventional (static) theory argues that trade liberalization should have benefited Third World countries more than it benefited leading industrial countries. After all, trade liberalization should have a bigger effect on the terms of trade of those joining the larger integrated world economy than on countries already members. And the more the change in the terms of trade, the bigger the gain in GDP per capita.

So much for theory. Reality suggests the contrary. After all, the postwar trade that was

liberalized the most was in fact intra-OECD trade, not trade between the OECD and the rest. From the very beginning in the 1940s, the General Agreement on Tariffs and Trade explicitly excused low-income countries from the need to dismantle their import barriers and exchange controls. This GATT permission must have lowered their GDP below what might have been, but the permission was consistent with the anti-global ideology prevailing in previously-colonial Asia and Africa, in Latin America where the great depression hit so hard, and in eastern Europe dominated as it was by state-directed USSR. Thus the succeeding rounds of liberalization under GATT brought freer trade and gains from trade mainly to OECD members. These facts just recited do *not* prove that globalization favors rich countries. Rather, they show that globalization typically favors all countries who liberalize and penalizes those who do not.

There is an abundant literature showing that liberalizing countries have gained from freer trade over the past four decades. First, the authors of a large National Bureau of Economic Research project assessed trade and exchange-control regimes in the 1960s and 1970s by making classic partial-equilibrium calculations of deadweight losses (Bhagwati and Krueger 1973-1976). They concluded that the barriers imposed significant costs in all but one case. However, these welfare calculations came from standard models which did not allow protection a chance to lower long-run cost curves as would be true of the traditional infant-industry case, or to foster industrialization and thus growth, as would be true of those modern growth models where industry is the carrier of technological change and capital deepening. Thus, economists have looked for more late twentieth century proof to support the openness-fosters-growth hypothesis.

Second, analysts have contrasted the growth performance of relatively open with relatively closed economies. The World Bank has conducted such studies going back before the first oil shock and the correlation between trade openness and growth is abundantly clear in these studies. Yet, such analysis is vulnerable to the criticism that the effect of trade policies alone cannot be isolated since other policies usually change at the same time. Thus, countries that liberalized their trade also liberalized their domestic

factor markets, liberalized their domestic commodity markets, and set up better property-rights enforcement. The appearance of these domestic policies may deserve more credit for raising income while the simultaneous appearance of more liberal trade policies may deserve less.

Third, there are country event studies, where the focus is on periods when trade policy regimes change dramatically enough to see their effect on growth. For example, Anne Krueger (1983, 1984) looked at trade opening moments in South Korea around 1960, Brazil and Colombia around 1965, and Tunisia around 1970. Growth improved after liberalization in all four cases. More recently, David Dollar and Aart Kraay (2000) examined the reforms and trade liberalizations of 16 countries in the 1980s and 1990s, finding, once again, the positive correlation between freer trade and faster growth. Of course, these reform episodes may have changed more than just global participation, so that an independent trade effect may not have been isolated.

Fourth, macro-econometric analysis has been used in an attempt to resolve the doubts left by simpler historical correlations revealed by the other three kinds of studies. This macro-econometric literature shows that free trade policies have had a positive effect on growth in the late twentieth century, especially with many other relevant influences held constant. The most famous of these is by Jeffrey Sachs and Andrew Warner (1995), but many others have also confirmed the openness-fosters-growth hypothesis for the late twentieth century (e.g. Edwards 1993; Dollar and Kraay 2000).

### ***When the Twentieth Century Leader Went Open: The United States***

The recent American wage and income widening generated an energetic search for its sources. First, there are the globalization sources. These include the rise in unskilled worker immigration rates, due to rising foreign immigrant supply and/or to a liberalization of United States immigration policy. Increased competition from imports that use unskilled labor more intensively than the rest of the economy must be added to the immigration impact. This increased competition is due to: foreign supply

improvements, including that carried by US outsourcing; international transportation improvements; and trade-liberalizing policies. Second, there are sources apparently unrelated to globalization, like a slowdown in the growth of per worker skills and biased technological change that cuts the demand for unskilled workers relative to skilled workers.

The debate seems to have become primarily a ‘trade versus technology’ contest, paying less attention to unions, immigration, and skills or schooling supply. Some agree with Adrian Wood (1994, 1998) that trade is to blame for much of the wage widening. Others reject this conclusion, arguing that most or all of the widening is due to a shift in technology that has been strongly biased in favor of skills. Still, everyone seems to agree that American liberalization in the late twentieth century was hardly egalitarian.

The boldest attempt at an overall quantitative accounting of these potential sources is that of William Cline (1997). Cline’s interpretation of his own estimates is, however, very different from mine, and perhaps my historical perspective accounts for the difference. Cline blames globalization less than do most writers, and emerges with a huge 58 percent unexplained residual. He then suggests that about half of this residual was due to skill-biased technological change, and the resulting technology effect is bigger than any globalization effect (1997: Table 5.1). However, there is a second way to read Cline’s table. His non-globalization forces appear to almost balance out, while his globalization forces could explain almost all the wage-gap widening. The proper question, typically left unasked, is how the period 1973-1993 differed from the one that preceded it, 1953-1973. If the other sources added up to pretty much the same impact in the first postwar period, then it would be the *change* in globalization forces between the two periods that mattered. Thus, Cline’s study illustrates how economists throw away information by confining their analysis to the recent widening of wage gaps. When the world economy became increasingly integrated in the century or two before 1980, technology also had its factor biases, and the mismatch between technological bias and skills growth kept shifting (Williamson and Lindert 1980;

Goldin and Katz 1999, 2000; Lindert 2000). Why ignore this history?

### ***Globalization, Inequality and the OECD***

The United States wasn't the only OECD country to undergo a recent rise in inequality. The trend toward wider wage gaps has also been unmistakable in Britain. Other OECD countries probably experienced pay widening across the 1980s too, although different measures tell different stories. Sticking with full-time labor earnings, one can't find much widening at all for France or Japan, and none for Germany or Italy. Yet income measures that take work hours and unemployment into account reveal some widening even in those cases. A recent study surveyed the inequality of disposable household income in the OECD since from the mid-1970s (Burniaux et al. 1998). Up to the mid-1980s, the Americans and British were alone in having a clear rise in inequality. From the mid-1980s to the mid-1990s, however, 20 out of 21 OECD countries had a noticeable rise in inequality. Furthermore, the main source of rising income inequality after the mid-1980s was the widening of labor earnings. The fact that labor earnings became more unequal in most OECD countries, when *full-time* labor earnings did not, suggests that many countries took their inequality in the form of more unemployment and hours reduction, a well-documented tendency for Western Europe in those years.

### ***Globalization, Inequality and the Third World***

The sparse literature on the wage-inequality and trade liberalization connection in developing countries is mixed in its findings and narrow in its focus. It has concentrated on six Latins (Argentina, Chile, Colombia, Costa Rica, Mexico, and Uruguay) and three East Asians (Korea, Singapore, and Taiwan), and the assessment diverges sharply between regions and epochs. Wage gaps seemed to fall when the three Asian tigers liberalized in the 1960s and early 1970s. Yet wage gaps generally widened when the six Latin American countries liberalized after the late 1970s (Wood 1994, 1997, 1998; Robbins

1997; Robbins and Gindling 1999; Hanson and Harrison 1999). Why the difference?

As Adrian Wood (1997) has rightly pointed out, historical context was important, since other things were not equal during these liberalizations. The clearest example where a Latin wage widening appears to refute the egalitarian Stolper-Samuelson prediction was the Mexican liberalization under Salinas in 1985-1990. Yet this liberalization move coincided with the major entry of China and other Asian exporters into world markets. Thus Mexico faced intense new competition from less skill-intensive manufactures in all export markets. Historical context could also explain why trade liberalization coincided with wage widening in the five other Latin countries, and why it coincided with wage narrowing in East Asia in the 1960s and early 1970s. Again, timing matters. Competition from other low-wage countries was far less intense when the Asian tigers pulled down their barriers in the 1960s and early 1970s compared with the late 1970s and early 1980s when the Latin Americans opened up.

But even if these findings were not mixed, they could not have had a very big impact on global inequalities. After all, the literature has focused on nine countries that together had less than 200 million people in 1980, while China by itself had 980 million, India 687 million, Indonesia 148 million, and Russia 139 million. All four of these giants recorded widening income gaps after their economies went global. The widening did not start in China until after 1984, because the initial reforms were rural and agricultural and therefore had an egalitarian effect. When the reforms reached the urban industrial sector, China's income gaps began to widen (Griffin and Zhao 1993, esp. p. 61; Atinc 1997). India's inequality has risen since liberalization started in the early 1990s. Indonesian incomes became increasingly concentrated from the 1970s to the 1990s, though this probably owed more to the Suharto regime's ownership of the new oil wealth than to any conventional trade-liberalization effect. Russian inequalities soared after the collapse of the Soviet regime in 1991, and this owed much to the handing over of trading prerogatives and assets to a few oligarchs (Flemming and Micklewright 2000).

### ***Border Effects, Limited Access and the Third World***

Income widening in these four giants dominates global trends in intra-national inequalities, but how much was due to liberal trade policy and globalization? Probably very little. Indeed, much of the inequality surge during their liberalization experiments seems linked to the fact that the opening to trade and foreign investment was incomplete. That is, the rise in inequality appears to have been based on the exclusion of much of the population from the benefits of globalization. The question is what accounts for the exclusion? China, where the gains since 1984 have been so heavily concentrated in the coastal cities and provinces (Griffin and Zhao 1993; Atinc 1997), offers a good example. Migration from the hinterland to the cities was pretty much prohibited before the mid-1990s. Those that were able to participate in the new, globally-linked economy prospered faster than ever before, while the rest in the hinterland were left behind, or at least enjoyed less economic success. China's inequality had risen to American levels by 1995 (a gini of .406), but the pronounced surge in inequality from 1984 to 1995 was dominated by the rise in urban-rural and coastal-hinterland gaps, not by widening gaps within any given locale. This pattern suggests that China's inequality -- like that of Russia, Indonesia and other giants -- has been raised by differential access to the benefits of the new economy, not by widening gaps among those who participate in it, or among those who do not. But why have the globalization-induced growth shocks favored China's coastal provinces? How much is due to policy, and how much to border effects associated with external trade, effects that have favored the coastal provinces for centuries?

Consider another example. In the aftermath of liberalization and NAFTA, Mexico has undergone rising inequality, not falling inequality as most observers predicted. However, Gordon Hanson (2002) has shown that much of this result can be traced to an uneven regional stimulus and, in particular, to the boom along the US border. Is it only a matter of waiting for these 'border effects' to spread?

### **Did the First Global Century Make the World More Unequal?**

### ***Global Divergence Pre-Dates Globalization***

Figure 1 documents the rise of income gaps between nations since 1820. While the evidence may not be as good, we also know that global income divergence started long before 1820. Indeed, international income gaps almost certainly widened after 1600 or even earlier. Real wages, consumption levels, real land rents, and the occasional direct tax return all point to an early modern ‘great divergence’ which took place in three dimensions -- between European nations, within European nations and between Europe and Asia. Real wages in England and Holland pulled away from the rest of the world in the late seventeenth and eighteenth century (Allen 1998; van Zanden 1999; Pomeranz 2000; Pamuk and Ozmucur 2002). Furthermore, between the sixteenth and the eighteenth centuries the landed and merchant classes in England, Holland, and France pulled far ahead of everyone -- their compatriots, the rest of Europe, and probably any other nation on earth. This divergence was even greater in real than in nominal terms, because luxuries became much cheaper relative to necessities (Lindert et al. 2002). While we will never have firm estimates of the world income gaps between 1500 and 1820, the bits and pieces we do have suggest unambiguously that global inequality rose long before the First Industrial Revolution (O’Rourke and Williamson 2002c). Thus, industrial revolutions are not a necessary condition for widening world income gaps. It happened with an industrial revolution and it happened without it.

Despite the rhetoric about an early modern world system, there was no true globalization move after the 1490s and the voyages of de Gama and Columbus. Intercontinental trade was monopolized, and huge price markups between exporting and importing ports were maintained even in the face of improving transport technology. Furthermore, most of the traded commodities were non-competing: that is, they were not produced at home and thus did not displace some competing domestic industry. In addition, these traded consumption goods were luxuries out of reach of the vast majority of each trading country’s population. In short, pre-1820 trade had only a trivial impact on living standards of anyone but the very rich. Finally, and as I pointed out above, the migration of people and capital was only a trickle

before the 1820s. True globalization began only after the 1820s.

These facts imply the following conflict: while global divergence has been taking place for at least four centuries, globalization has been a factor for less than two. This conflict raises serious doubts about the premise that rising world integration is responsible for rising world inequality. Thus, globalization is not a necessary condition for widening world income gaps. It happened with globalization and it happened without it.

### ***When the Nineteenth Century Leader Went Open: Britain***

Britain's nineteenth-century free-trade leadership, especially its famous Corn Law repeal in 1846, offers a good illustration of how the effects of global liberalization depend on the leader, and how the effects of going open can be egalitarian for both the world and for the liberalizing leader. The big gainers from nineteenth century British trade liberalization were British labor and the rest of the world, while the big losers were British landlords, the world's richest individuals (Williamson 1990). How much the rest of the world gained (and whether British capitalists gained at all) depended on foreign-trade elasticities and induced terms of trade effects. But since these terms of trade effects were probably quite significant for what was then called 'the workshop of the world,' Britain must have distributed considerable gains to the rest of the world as well as to her own workers. Workers gained because Britain was a food-importing country (thus agriculture was a small employer)<sup>2</sup> and because labor was used much less intensively in import-competing agriculture than was land.

History offers two enormously important historical cases where the world leader going open had completely different effects: liberalization in nineteenth century Britain was unambiguously egalitarian at both the national and global level, but American liberalization in the late twentieth century was not.

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<sup>2</sup> Labor would not have gained much from free trade on the continent since, among other things, agriculture was a far bigger employer, so big that the employment effects (the nominal wage) dominated the consumption effects (the cost of living). See O'Rourke (1997).

### *European Followers and the New World*

What about the globalization and inequality connection for the rest of Europe and its New World offshoots? Two kinds of (admittedly imperfect) evidence document distributional trends within countries participating in the global economy. One relies on trends in the ratio of unskilled wages to farm rents per acre, a relative factor price whose movements launched inequality changes in a world where the agricultural sector was big and where land was a critical component of total wealth. It tells us how the typical unskilled worker near the bottom of the income pyramid did relative to the typical landlord at the top ( $w/r$ ). The other piece of inequality evidence relies on trends in the ratio of the unskilled wage to GDP per worker ( $w/y$ ). These trends tell us whether the typical unskilled worker near the bottom was catching up with or falling behind the income recipient in the middle.

When  $w/r$  and  $w/y$  trends between 1870 and World War I are plotted for the Atlantic economy against initial labor scarcity (Williamson 1997), they conform to the conventional globalization prediction (Figure 3). Inequality fell and equality rose in land-scarce and labor-abundant Europe either due to trade boom, or to mass emigration, or to both, as incomes of the abundant factor (unskilled labor) rose relative to the scarce factor (land). In addition, those who faced the onslaught of cheap foreign grain after 1870, but chose not to impose high tariffs on grain imports (like Britain, Ireland and Sweden), recorded the biggest loss for landlords and the biggest gain for workers. Those who protected their landlords and farmers against cheap foreign grain (like France, Germany and Spain) generally recorded a smaller decline in land rents relative to unskilled wages. To the extent that globalization was the dominant force, inequality should have fallen in labor-abundant and land-scarce Europe. And fall it did. However, these egalitarian effects were far more modest for the European industrial leaders who, after all, had smaller agricultural sectors. Land was a smaller component of total wealth in these industrial leaders and improved returns on industrial capital, whose owners were located near the top of the income

distribution, at least partially offset the diminished incomes from land, whose owners tended to be at the very top of the income distribution.

Globalization had an inegalitarian effect in the land-abundant and labor-scarce New World, and for symmetric reasons. Not surprisingly, Latin America, the United States, Australia, Canada and Russia all raised tariffs to defend themselves against an invasion of European manufactures and the de-industrialization it would have caused (Coatsworth and Williamson 2002). Indeed, the levels of protection in the United States, Canada, Australia, Latin America and the European periphery were *huge* compared to Continental Europe. Figure 4 reports that in the 1880s the US and Latin America had tariffs *five to six times* higher than western Europe, and the European periphery had levels *three times* higher! It is important to know *why* tariffs were so much higher in the periphery than in the European core up to the 1930s, but we save this discussion for the end of the paper.

### ***Terms of Trade Gains in the Periphery before 1913***

Terms of trade movements might signal who gains the most from trade, and a literature at least two centuries old has offered opinions about whose terms of trade should improve most and why (Diakosavvas and Scandizzo 1991; Hadass and Williamson 2002). Classical economists thought the relative price of primary products should rise given an inelastic supply of land and natural resources. This conventional wisdom took a revisionist U-turn in the 1950s when Hans Singer and Raoul Prebisch argued that since 1870 the terms of trade had deteriorated for poor countries in the periphery -- exporting primary products, while they had improved for rich countries in the center -- exporting industrial products.

The terms of trade can be influenced by changes in transport costs. It can also be influenced by changes in policy. And it can be influenced by other events, such as productivity growth rates, demand elasticities, and factor supply responses. Since transport costs declined so sharply in the century

following 1820 (O'Rourke and Williamson 1999; Williamson 2002), this is one likely source that served to raise everybody's terms of trade. Furthermore, and as we have seen, rich countries like Britain took a terms-of-trade hit when they switched to free trade by mid-century, an event that must have raised the terms of trade in the poor, non-industrial periphery even more. But in some parts of the periphery, especially before the 1870s, other factors were at work that mattered even more.

Probably the greatest nineteenth century globalization shock did not involve transport revolutions at all. It happened in Asia, and it happened in mid century. Under the persuasion of American gun ships, Japan switched from virtual autarky to free trade in 1858. In the fifteen years following 1858, Japan's foreign trade rose 70 times, from virtually nil to 7 percent of national income (Huber 1971). The prices of exportables soared in home markets, rising towards world market levels. The prices of importables slumped in home markets, falling towards world market levels. As a consequence, Japan's terms of trade rose by a factor of 4.9 over those fifteen years (Yasuba 1996). Thus, the combination of declining transport costs world wide and a dramatic switch from autarky to free trade unleashed a powerful terms of trade gain for Japan.

Other Asian nations followed this liberal path, most forced to do so by colonial dominance or gunboat diplomacy. Thus, China signed a treaty in 1842 opening her ports to trade and adopting a 5 percent *ad valorem* tariff limit. Siam adopted a 3 percent tariff limit in 1855. Korea emerged from its autarkic Hermit Kingdom a little later (with the Treaty of Kangwha in 1876), undergoing market integration with Japan long before colonial status became formalized in 1910. India went the way of British free trade in 1846, and Indonesia mimicked Dutch liberalism. In short, and whether they liked it or not, prior to 1870 Asia underwent tremendous improvements in their terms of trade by this policy switch, and it was reinforced by declining transport costs world wide.

For the years after 1870, there is good evidence documenting terms of trade movements the world around, country by country (Williamson 2002: Hadass and Williamson 2002). Contrary to the

assertions which Prebisch and Singer made a half-century ago, not only did the terms of trade improve for the poor periphery up to World War I, but they improved a lot more than they did in Europe. Over the four decades prior to World War I, the terms of trade rose by only 2 percent in the European center, by almost 10 percent in East Asia, and by more than 21 percent in the rest of the Third World.

Why am I able to report such different historical findings than did Prebisch and Singer, or than did W. Arthur Lewis a little later? The answer is simple: the peripheral terms of trade reported here are those which prevailed in each home market (e.g. Alexandria, Bangkok or Montevideo), not the inverse of those prevailing in London or New York. In a world where transport costs plunged steeply, everybody found their terms of trade improving, but primary producers in the periphery enjoyed the biggest improvement up to World War I.

This pre-1913 terms of trade experience seems to imply that globalization favored the poor periphery more than it did the rich center. That inference may be false. Over the short run, positive and quasi-permanent terms of trade shocks of foreign origin will always raise a nation's purchasing power, and the issue is only how much. Over the long run a positive terms-of-trade shock in primary-product-producing countries should reinforce comparative advantage, pull resources into the export sector, thus causing de-industrialization. To the extent that industrialization is the prime carrier of capital-deepening and technological change, then economists like Singer were right to caution that positive external price shocks for primary producers might actually lower growth rates in the long run. Of course, small-scale, rural cottage industry isn't the same as large-scale, urban factories, so industry may not have been quite the carrier of growth in the 1870 periphery that it might be in the Third World today. In any case, while nobody has yet tried to decompose the short run and long run components of quasi-permanent terms of trade shocks like these, there has been a recent effort to explore the possibility that positive terms of trade shocks had a negative effect around the periphery (Hadass and Williamson 2002). Adding terms of trade variables to a now-standard empirical growth model and estimating that model for a nineteen-country

sample between 1870 and 1940, yields the unsurprising result that an improving terms of trade augmented long-run growth in the center. However, the same terms of trade improvement was *growth-reducing* in the periphery. It appears that the short-run gain from an improving terms of trade was overwhelmed by a long-run loss attributed to de-industrialization in the periphery; in contrast, the short-run gain was reinforced by a long-run gain attributed to industrialization in the center.

These results imply that globalization-induced (positive) terms of trade shocks before World War I were serving to augment the growing gap between rich and poor nations. Did the same happen after 1950 when Prebisch, Singer and other critics of conventional policy were so vocal? Maybe. Was the same true after 1970? Probably not. After all, manufactures have been a rapidly rising share of developing country output and exports over the past thirty years. The share of manufactures in the total commodity exports in developing countries rose from around 30 percent in 1970 to more than 75 percent in 2002 (Hertel, Hoekman and Martin 2002: Figure 2). To put it another way, agricultural and mineral primary products fell from 70 to 25 percent over the past thirty years. Enough of the Third World is now labor-abundant and natural-resource-scarce so that the growth of trade has helped it industrialize. The classic image of Third World specialization in primary products is fast obsolescing.

### ***Rising Inequality in the Primary Product Exporting Periphery***

There were powerful global forces at work before 1913 and the Third World was very much a part of it. There was commodity price convergence within and between Europe, the newly-settled non-Latin countries, Latin America and Asia, and the price convergence was bigger in the periphery than it was in the core. The convergence was driven by a transport revolution that was more dramatic in the Asian periphery where, in addition, it was not offset by tariff intervention. It also appears that relative factor prices converged world-wide at the same time that average living standards and income per capita

diverged sharply between center and periphery.<sup>3</sup> The relative factor price convergence was manifested by falling wage-rental ratios in land-abundant and labor-scarce countries, and rising wage-rental ratios in land-scarce and labor-abundant countries. The convergence took place everywhere around the globe.

These events set in motion powerful inequality forces in land and resource abundant areas, *especially* around the pre-industrial periphery, as in Southeast Asia and the Southern Cone. Quite the opposite forces were at work in land and resource scarce areas, like East Asia.

These distributional events in the periphery were ubiquitous and powerful (Williamson 2002). They must have had important implications for political developments which probably persisted well in to the late twentieth century, just as W. Arthur Lewis' research agenda always implied.

#### ***North-North and South-South Mass Migrations, with Segmentation in Between***

North-North migrations between Europe and the New World involved the movement of something like 60 million individuals. We know a great deal about the determinants and impact of these mass migrations. South-South migration within the periphery probably was at least as large, but we know very little about its impact on sending regions (like China and India), on receiving regions (like East Africa, Manchuria and Southeast Asia), or on the incomes of the 60 million who moved. As Lewis (1978) pointed out long ago, the South-North migrations were only a trickle: like today, poor migrants from the periphery were kept out of the center by restrictive policy, by the high cost of the move, and by their lack of education. World labor markets were segmented then just as they are now.

Real wages and living standards converged among the currently-industrialized countries between

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<sup>3</sup> These facts deserve stress. While there was income per capita and living standards divergence between center and periphery in the first global century, there was powerful convergence in relative factor prices. One wonders whether the same has been true in the second global century, and, if so, why economists haven't noticed it.

1850 and World War I (Figure 5).<sup>4</sup> The convergence was driven primarily by the erosion of the gap between the New World and the Old. In addition, many poor European countries were catching up with the industrial leaders. How much of this convergence in the Atlantic economy was due to North-North mass migration?

The labor force impact of these migrations on each member of the Atlantic economy in 1910 varied greatly (Taylor and Williamson 1997). Among receiving countries, Argentina's labor force was augmented most by immigration (86 percent), Brazil's the least (4 percent), with the United States in between (24 percent). Among sending countries, Ireland's labor force was diminished most by emigration (45 percent), France the least (1 percent), with Britain in between (11 percent). At the same time, the economic gaps between rich and poor countries diminished (Figure 5): real wage dispersion in the Atlantic economy declined between 1870 and 1910 by 28 percent, GDP per capita dispersion declined by 18 percent and GDP per worker dispersion declined by 29 percent (Taylor and Williamson 1997; Hatton and Williamson 1998). What contribution did the mass migration make to that convergence?

Migration affects equilibrium output, wages and living standards by influencing aggregate labor supply, and these effects have also been estimated. In the absence of the mass migrations, wages and labor productivity would have been a lot higher in the New World and a lot lower in the Old. In the absence of the mass migrations, income per capita would have been a bit higher in the New World and a bit lower in the Old World.<sup>5</sup> Not surprisingly, the biggest impact was on those countries that experienced the biggest migrations. Emigration is estimated to have raised Irish wages by 32 percent, Italian by 28 percent and Norwegian by 10 percent. Immigration is estimated to have lowered Argentine wages by 22 percent, Australian by 15 percent, Canadian by 16 percent and American by 8 percent.

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<sup>4</sup> Figure 5 plots convergence in the Atlantic economy for sample sizes of 13, 15 and 17. The largest sample includes: Argentina, Australia, Brazil, Canada, the United States; Belgium, Denmark, France, Germany, Great Britain, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden (Williamson 1996; O'Rourke and Williamson 1999).

<sup>5</sup> The magnitudes are smaller for GDP per capita because migration self-selects young adults who may also be the best and the brightest. Thus, emigration may contribute to labor scarcity, but it also lowers GDP.

This partial equilibrium assessment of migration's impact is higher than a general equilibrium assessment would be since it ignores trade and output mix adjustments, as well as domestic and global capital market responses, all of which would have muted the impact of migration. Whether an overstatement or not, the assessment certainly lends strong support to the hypothesis that mass migration made an important contribution to late nineteenth century convergence in the 'North.' In the absence of the mass migrations, real wage dispersion would have increased by 7 percent, rather than decreased by 28 percent, as it did in fact. GDP per capita dispersion would also have decreased by only 9 percent, rather than by 18 percent as it did in fact. Wage gaps between New World and Old would have risen to 128 percent in 1910 when in fact they declined from 108 to 85 percent.

These results have been used to conclude that *all* of the real wage convergence before World War I was attributable to migration, about two-thirds of the GDP per worker convergence, and perhaps one half of the GDP per capita convergence.

There was an additional and even more powerful effect of the mass migrations on global income distribution. So far I have only discussed the effect of migration on convergence in per capita and per worker averages between countries; I have not discussed the impact of migration on income distribution within the Atlantic economy as a whole. To do so, I would need to add on the large income gains accruing to the 60 million Europeans who moved overseas. Typically, these migrants came from countries whose average real wages and average GDP per worker were perhaps only half of those in the receiving countries. These migrant gains were an important part of the net equalizing effect on world incomes of the mass migrations.

North-North mass migrations had a strong leveling influence in the world economy up to 1913. They made it possible for poor migrants to improve the living standards for themselves and their children. It also lowered the scarcity of resident New World labor which competed with the immigrants, while it raised the scarcity of the poor European labor that stayed home (whose incomes

were augmented still further by emigrant remittances). South-South migrations were about the same size as the North-North flows. Until new research tells us otherwise, I think it is safe to assume that South-South migrations put powerful downward pressure on real wages and labor productivity in Ceylon, Burma, Malaysia, Thailand, East Africa, Manchuria and other labor scarce regions that received so many Indian and Chinese immigrants. Since the sending labor surplus areas were so huge, it is less likely that the emigrations served to raise labor scarcity there by much.

### ***The Unimportance of Global Capital Markets***

Using *ceteris paribus* assumptions, I have just concluded that mass migration accounted for *all* of the real wage convergence observed in the Atlantic economy during the first global century. But *ceteris* was not *paribus* since there were other powerful forces at work, capital accumulation responses being one of them. Capital accumulation was rapid in the New World, so much so that the rate of capital deepening was faster in the United States than in any of its European competitors, and the same was probably true of other rich New World countries. Thus, the mass migrations may have been at least partially offset by capital accumulation, and a large part of that accumulation was being financed by international capital flows which reached magnitudes unsurpassed since. One study has made exactly this kind of adjustment (Taylor and Williamson 1997) by implementing the zero-migration counterfactual in a model where the labor supply shocks generate capital flow responses that maintain a constant rate of return on capital (e.g. perfect global capital market integration). The assumed capital-chasing-labor offsets are certainly large in this experiment, but mass migration *still* explains about 70 percent of the convergence, leaving only about 30 percent to other forces.

Capital market responses were simply not big enough to deflate significantly the powerful income-leveling effects of mass migration within what we now call the OECD. Indeed, while it is true that global capital markets were at least as well integrated prior to World War I as they are today

(Obstfeld and Taylor 1998, 2002), capital flows were mainly an *anti-convergence* force. This statement is, of course, inconsistent with simple two-factor-theory prediction that capital should flow from rich to poor countries. It never did. As Robert Lucas (1990) made famous, Table 1 shows that British capital inflows and GDP per capita were *positively*, not negatively, correlated just before World War I and that the same was true for all private capital inflows in the 1990s (Clemens and Williamson 2001b; see also Obstfeld and Taylor 2002). The wealth bias was just as powerful a century ago, and it is explained by the fact that capital chased after abundant natural resources, youthful populations, and human-capital abundance. It did *not* chase after cheap labor.

International capital flows were an anti-convergence force. They drifted towards rich, not poor, countries; they raised wages and labor productivity in the resource-abundant New World, not the Third World. And what was true of the first global century has also been true of the second. But this does not imply that the Third World has been losing capital by export. Rather, it implies that there has always been a churning of capital among richer countries outside of Asia and Africa.

### ***Trade Policy and International Income Gaps: Why the Big Regime Switch?***

If free trade has encouraged (or at least has not harmed: *pace* Rodriguez and Rodrik 2001) economic growth since World War II, why was it bad for growth before? About thirty years ago, Paul Bairoch (1972) argued that protectionist countries grew *faster* in the nineteenth century, not slower as every economist has found for the late twentieth century. Bairoch's sample was mainly from the European industrial core, it looked at pre-1914 experience only, and it invoked unconditional analysis, controlling for no other factors. Like some modern studies, Bairoch simply compared growth rates of major European countries in protectionist and free trade episodes. More recently, Kevin O'Rourke (2000) got the Bairoch finding again, this time using macro-econometric conditional analysis on a ten country sample drawn from the pre-1914 Atlantic economy (Australia, Canada,

Denmark, France, Germany, Italy, Norway, Sweden, UK, US). In short, these two scholars were not able to find *any* evidence before World War I supporting the openness-fosters-growth hypothesis.<sup>6</sup>

These pioneering historical studies suggest that there was a fundamental tariff-growth regime switch somewhere between the start of World War I and the end of World War II: before the switch, protection fostered growth; after the switch, protection hindered growth. Michael Clemens and Jeffrey Williamson (2001a) think the best explanation for the tariff-growth paradox is the fact that: during the interwar, and led by the industrial powers, tariff barriers facing the average exporting countries rose to very high levels; and since World War II, again led by the industrial powers, tariff barriers facing the average exporting country fell to their lowest levels in a century and a half. A well-developed theoretical literature on strategic trade policy<sup>7</sup> predicts that nations have an incentive to inflate their own terms of trade by tariffs. Inasmuch as favorable terms of trade translate into better growth performance and tariffs are non-prohibitive, we might expect the association between own tariffs and growth to depend at least in part on the external tariff environment faced by the country in question. After accounting for changes in the world policy environment, Clemens and Williamson show that there is no incompatibility between the positive tariff-growth correlation before 1914 and the negative tariff-growth correlation since 1970.

It has not always been true that open countries finish first, and it need not be true in the future either. There is growing evidence suggesting that the benefits of openness are neither inherent nor irreversible but rather depend upon the state of the world. When considering the move to openness, heads of state are facing a game, not an isolated decision. The low-level equilibrium of mutually high tariffs is only as far away as some big world event that persuades influential leader-countries to switch to anti-global policies. Feedback ensures that the rest must follow in order to

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<sup>6</sup> An additional study is worth mentioning here. Capié (1983) found support for the Bairoch hypothesis using event analysis with a pre-1914 European sample of four (Germany, Italy, the UK and Russia).

<sup>7</sup> Exemplified by Dixit (1987) and recently surveyed in Bagwell and Staiger (2000).

survive. Thus, today's low-tariff equilibrium was only as far away as OECD coordination in the early postwar years, and the creation of trans-national public institutions whose express purpose was to impede a return to interwar autarky.

But what sparks such shifts from one equilibrium to another? Why did it happen in the 1920s and 1950s? Could it happen again?

### ***Trade Policy and International Income Gaps: What About the Pre-1940 Periphery?***

Were Latin America, Eastern Europe and the rest of the periphery part of this paradox, or was it only an attribute of the industrial core? Recent work has shown that protection *did* foster growth in the industrial core before World War II, but that it did *not* do so in most of the periphery (Clemens and Williamson 2001a; Coatsworth and Williamson 2002). Table 2 reports this result, where the model estimated is of the convergence variety, but it is conditioned only by the country's own tariff rate and regional club dummies. The tariff rate and GDP per capita level are both measured at year  $t$ , while the subsequent GDP per capita growth rate is measured over the half decade following. Thus, the last pre-World War II observation is 1934, which relates to growth between 1934 and 1939, and the last pre-World War I observation is 1908, which relates to the growth between 1908 and 1913. The two world wars are ignored.

The tariff-growth paradox is stunningly clear in Table 2. In columns (1) and (3), the estimated coefficient on log of the tariff rate is 0.14 for 1875-1908 and 0.36 for 1924-1934. Thus, and in contrast with late twentieth century evidence, tariffs were associated with *fast* growth before 1939. But was this true for all regions, or was there instead an asymmetry between industrial economies in the core and primary-producers in the periphery? Presumably, the protecting country has to have a big domestic market, and has to be ready for industrialization, accumulation, and human capital deepening if the long run tariff-induced dynamic effects are to offset the short run

gains from trade given up. Table 2 tests for asymmetry in columns (2) and (4), and the asymmetry hypothesis wins.

That is, protection was associated with faster growth in the European core and their English-speaking offshoots (the coefficient on own tariff 1875-1908 is 0.56 and highly significant), but it was *not* associated with fast growth in the European or Latin American periphery, nor was it associated with fast growth in interwar Asia. Indeed, before World War I protection in Latin America was associated significantly and powerfully with *slow* growth.

The moral of the story is while policy makers in Latin America, eastern Europe and the Mediterranean may, after the 1860s, have been very aware of the pro-protectionist infant-industry argument offered for a newly-integrated (*zollverein*) Germany by Frederich List and for a newly-independent (post-revolutionary) United States by Alexander Hamilton, there is absolutely no evidence which would have supported those arguments in the periphery. We must look elsewhere for plausible explanations for the exceptionally high tariffs in Latin America and the European periphery during the first global century.

### **Lessons of History 1: Will There Be South-North Mass Migration in Our Future?**

As Lewis (1978) pointed out long ago, and as I stressed above, even the age of mass North-North and South-South migration prior to World War I had hardly any South-North migration to speak of. It is relatively small even today. Will this world labor market segmentation break down in the near future? It all depends on policy. Certainly demographic forces are contributing to the breakdown of world labor market segmentation along South-North lines. As young adult shares shrink in the elderly OECD, and while they swell in the young Third World going through demographic transitions, perhaps the pressure will become too great to resist the move to a more

liberal OECD immigration policy, especially in Europe and Japan.

The two underlying fundamentals that drove European emigration in the late nineteenth century were the size of real wage gaps between sending and receiving regions -- a gap that gave migrants the incentive to move, and demographic booms in the low-wage sending regions -- a force that served to augment the supply of potential movers (Hatton and Williamson 1998). These two fundamentals are even more prominent in Africa today, and recent work suggests that Africans seem to be just as responsive to them as were Europeans a century ago (Hatton and Williamson 2001). Although this is no longer an age of unrestricted intercontinental migration, new estimates of net migration for the countries of sub-Saharan Africa suggest that exactly the same forces are at work driving African across-border migration today. Rapid growth in the cohort of young potential migrants, population pressure on the resource base, and poor economic performance are the main forces driving African emigration. In Europe a century ago, more modest demographic increases were accompanied by strong catching-up economic growth in low-wage emigrant regions. Furthermore, the sending regions of Europe eventually underwent a slowdown in demographic growth serving to choke off some of the mass migration. Yet, migrations were still mass. Africa today offers a contrast: economic growth has faltered, its economies have fallen further behind the leaders, and there will be a demographic speed up in the near future. The pressure on African emigration is likely to intensify, including a growing demand for entrance into high-wage labor markets of the developed world. Indeed, if European doors were swung open, there is an excellent chance that by 2025 Africa would record far greater mass migrations than did nineteenth century Europe. The demographic unknown in this equation is, of course, African success in controlling the spread of the HIV/AIDS. If it is controlled early, then these emigration predictions are more likely to prevail.

This analysis for African emigration has been recently extended to US immigration by source

from 1971 to 1998 (Clark, Hatton and Williamson 2002). Here again, the economic and demographic fundamentals that determine immigration rates across source countries are estimated - income, education, demographic composition and inequality. The analysis also allows for persistence in these patterns as they arise from the impact of the existing immigrant stock B big foreign-born stocks implying strong >friends and neighbors= effects. Most of these Third World fundamentals will be serving to increase the demand for high-wage jobs in the OECD.

How will the OECD respond to this challenge? If they open their doors, the mass migrations would almost certainly have the same leveling influence on world incomes that it did in the pro-global nineteenth century. It would help erode between-country North-South income gaps, and it would improve the lives of the millions of Asians and Africans allowed to make the move. Inequality would rise in the OECD, of course, just as it did in the immigrant-absorbing New World a century ago. Indeed, and as we have seen, rising inequality created an anti-global backlash that included a retreat into immigrant restriction.

### ***Lessons of History 2: Accomodating the Losers with Protection and Safety Nets***

Any force that creates more within-country inequality is automatically blunted today -- at least in the OECD, a point that is sometimes overlooked in the inequality debate. That is, any rise in the inequality of households' net disposable post-fisc income will always be less than the rise in gross pre-fisc income inequality. Any damage to the earnings of low-skilled workers is partially offset by their lower tax payments and higher transfer receipts, like unemployment compensation or family assistance. Broadening the income concept therefore serves to shrink any apparent impact of globalization on the inequality of living standards. And by muting their losses, such safety nets also, presumably, mute political backlash.

So far, so good. But does globalization destroy these automatic stabilizers by undermining taxes and social transfer programs? In a world where businesses and skilled personnel can flee taxes they don't like, there is the well-known danger that governments might compete for internationally mobile factors by cutting tax rates and thus social spending. As Dani Rodrik (1997, 1998) has stressed, however, the relationship between a country's vulnerability to international markets and the size of its tax-based social programs is *positive*, not negative as a "race to the bottom" would imply. Thus, countries with greater global market vulnerability have higher taxes, more social spending, and broader safety nets. Furthermore, 'vulnerability' to global market changes is in part an endogenous policy choice: there is a trade-off between going open and investing in safety nets. In any case, while there may be other reasons for the positive correlation between openness and social programs, there is no apparent tendency for globalization to undermine the safety nets.

While these stabilizers certainly prevail in the OECD today, one supposes they were not common during the first globalization boom when such safety nets were not yet in place. One also supposes that there was no trade-off between going open and investing in safety nets at that time in what we now call the OECD. If one was inclined to make those suppositions, one would be wrong.

Europe was globalized by 1913, and the increased market vulnerability created greater wage and employment instability. In a recent paper, Michael Huberman and Wayne Lewchuk (2001) show that authorities responded to workers' complaints by establishing labor market regulations and social insurance programs.<sup>8</sup> Empirical analysis of seventeen European countries shows that the legislation gave workers reason to support free trade. Thus, globalization was compatible with government intervention before 1913 just as it has been since 1945.

The interesting question, as yet unanswered, is how long will it take poor nations today to

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<sup>8</sup> They also responded by giving them the vote. Acemoglu and Robinson (2000) ignore this relationship when exploring the extension of the European franchise in the first global century.

put the same modern safety nets in place.

### *Lessons of History 3: What Explains Protection?*

What better place to end this paper than to ask: Why do countries protect? While the recent decade or so has generated a flourishing theoretical literature on endogenous tariffs, that literature is primarily motivated by recent OECD, and mainly US, experience, thus ignoring the enormous variance over time and across regions with very different endowments, institutions and histories.

Look again at Figure 4, where the enormous variance in levels of protection are documented for both the first global century and for the interwar years. Three big facts are revealed by Figure 4. First, tariffs in the independent periphery (Latin America, the non-Latin European offshoots and the European periphery) were vastly higher than they were in the European core. Second, globalization backlash in the first global century was *much* stronger in the periphery than in the European core (the rise in average tariff rates was much bigger up to World War I). Third, what made the interwar years so autarkic was not a move towards protection in the periphery -- since tariffs in Latin America, the European periphery and the non-Latin offshoots were just about as high in the 1930s as they were before World War I.<sup>9</sup> What made the interwar years so autarkic was the rise of protection in the European core and the United States.

Economists need to confront these facts and to offer explanations for them. When John Coatsworth and I (2002) did so recently for Latin America, we found the motivations for protection to be quite complex. Those high tariffs were driven up in Latin America by government revenue needs, strategic tariff reactions to trading partner policy, Stolper-Samuelson lobbying forces, and

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<sup>9</sup> Figure 4 measures 'protection' by average tariff levels only, thus ignoring non-tariff barriers. NBTs were on the rise in the interwar, so the indicator in Figure 4 understates the anti-global regime switch.

protection of the local manufacturing industry. Before we can be confident about what causes globalization backlash today, we need to know what caused it in the past. At least in Latin America over the century 1820-1950,<sup>10</sup> only a small part of the anti-global policy was driven by some development goal, by fears of de-industrialization, or by the complaints of the losers. Economists need to do the same kind of assessment for the second global century.

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<sup>10</sup> Michael Clemens and I (2002) are expanding the historical analysis from Latin America to the rest of the world between 1865 and 1940.

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**Table 1****Wealth Bias During the Two Global Centuries**

<b>Time period</b>	<b>1907-1913</b>	<b>1992-1998</b>
Dependent variable	Annual average gross British capital received (flow, in 1990 US\$)	Annual average change in stock of private capital liabilities (flow, in 1990 US\$)
GDP, 1990 US\$ (3.32) <sup>***</sup> <b>[0.534]</b>	0.000208 (8.68) <sup>***</sup> <b>[0.624]</b>	0.00467
GDP per capita, 1990 US\$ (2.43) <sup>**</sup> <b>[0.965]</b>	10,700 (2.20) <sup>**</sup> <b>[0.410]</b>	97,900
Constant -11,100,000 (-1.06)	-44,700,000 (-0.11)	
Estimator	OLS	OLS
N 34	155	
R <sup>2</sup> 0.414	0.463	

t-statistics are in parentheses.

Elasticities (at average regressor values) are in bold square brackets.

\*\*\* Significant at the 1% level. \*\* Significant at the 5% level.

*Source:* Clemens and Williamson (2001b), Table 2.

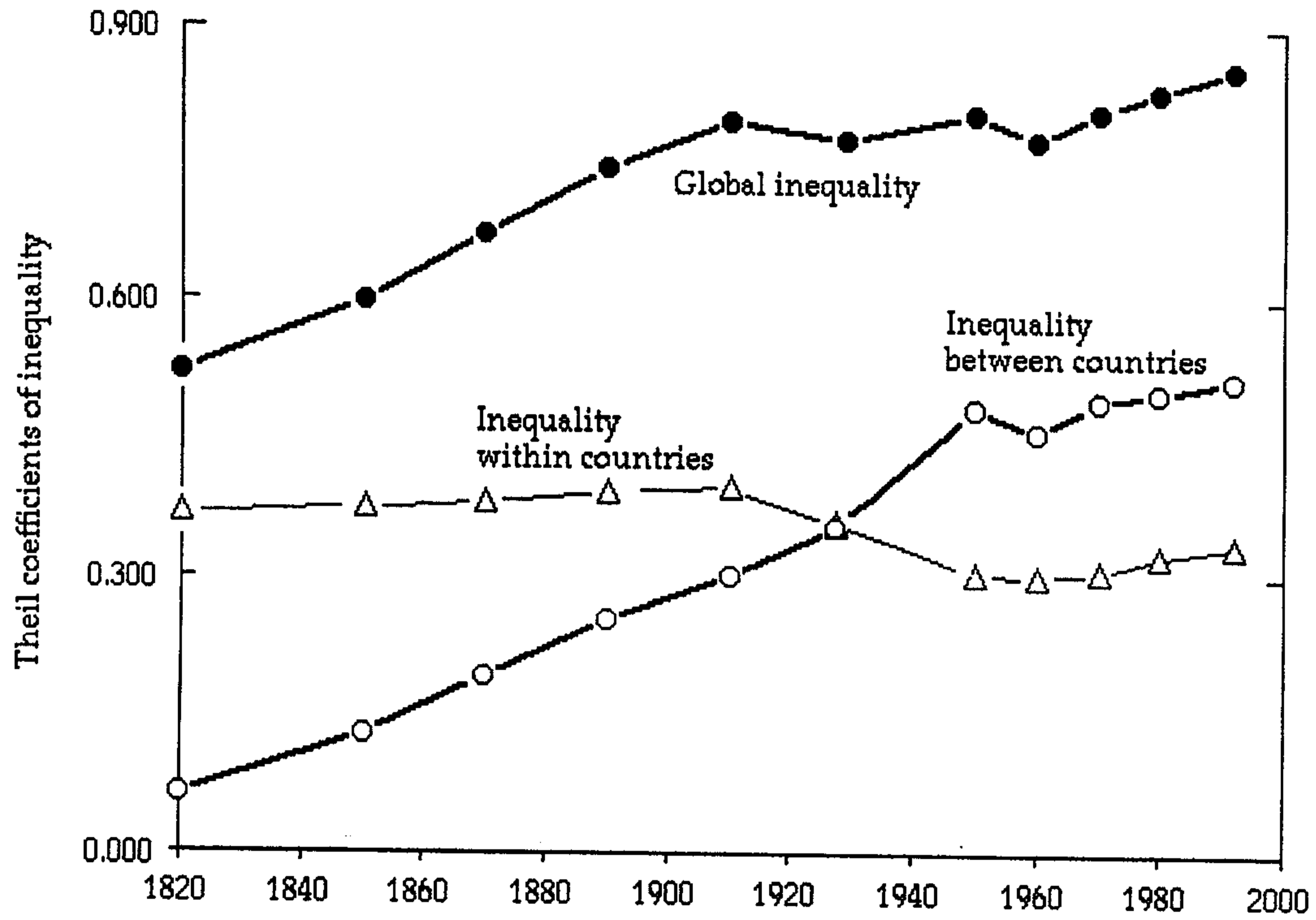
**Table 2**  
**Tariff Impact on GDP per capita Growth by Region**

Dependent Variable: 5-Year Overlapping Average Growth Rate

	(1)	(2)	(3)	(4)
Included Countries	ALL	ALL	ALL	ALL
Years per Period	1	1	1	1
Time Interval	1875-1908	1875-1908	1924-1934	1924-1934
In GDP/capita	0.15 <i>1.14</i>	0.10 <i>0.75</i>	-0.73 <i>-1.77</i>	-0.89 <i>-2.13</i>
In Own Tariff	0.14 <i>1.64</i>	0.56 <i>3.35</i>	0.36 <i>1.27</i>	1.65 <i>2.83</i>
(European Periphery dummy) x (ln tariff rate)		-0.72 <i>-3.32</i>		-2.45 <i>-3.18</i>
(Latin America dummy) x (ln tariff rate)		-0.97 <i>-3.15</i>		0.58 <i>0.49</i>
(Asia dummy) x (ln tariff rate)		-0.19 <i>-0.84</i>		-1.47 <i>-2.02</i>
Euro Periph dummy	-0.21 <i>-1.24</i>	1.58 <i>2.77</i>	-0.04 <i>-0.08</i>	6.15 <i>3.10</i>
Latin America dummy	0.19 <i>0.94</i>	3.01 <i>3.13</i>	-0.73 <i>-1.31</i>	-3.31 <i>-0.96</i>
Asia dummy	-0.26 <i>-1.09</i>	0.30 <i>0.55</i>	-1.17 <i>-1.52</i>	2.39 <i>1.24</i>
Constant	-0.12 <i>-0.11</i>	-0.76 <i>-0.68</i>	5.92 <i>1.55</i>	3.99 <i>1.05</i>
Country Dummies?	No	No	No	No
Time Dummies?	No	No	No	No
N	1,190	1,190	372	372
R-squared	0.0357	0.0498	0.0227	0.0605
Adj. R-squared	0.0317	0.0433	0.0094	0.0398

*t*-statistics are in italics. Source: Coatsworth and Williamson, 2002, Table 1.

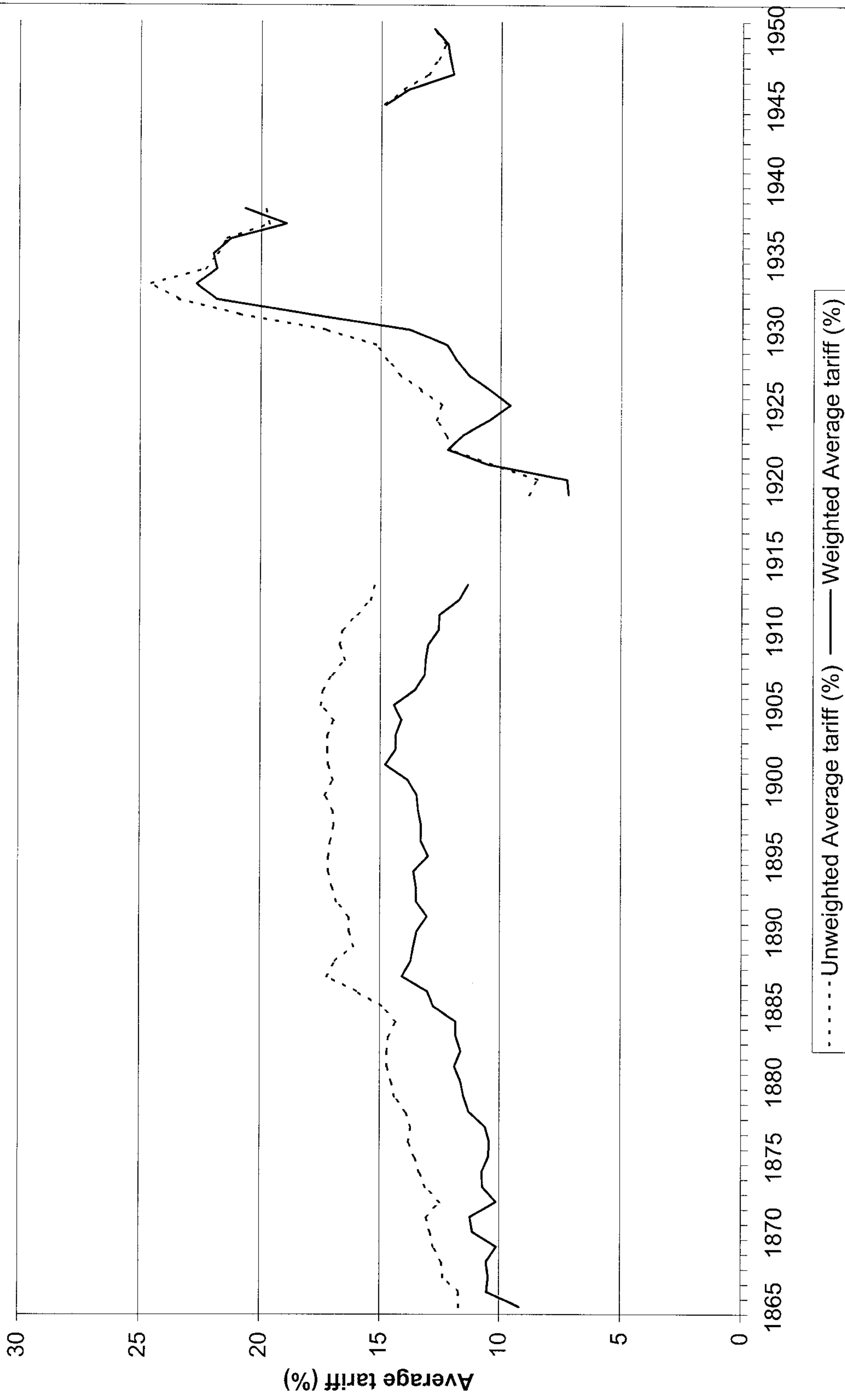
**Figure 1. Global Inequality of Individual Incomes, 1820 - 1992**

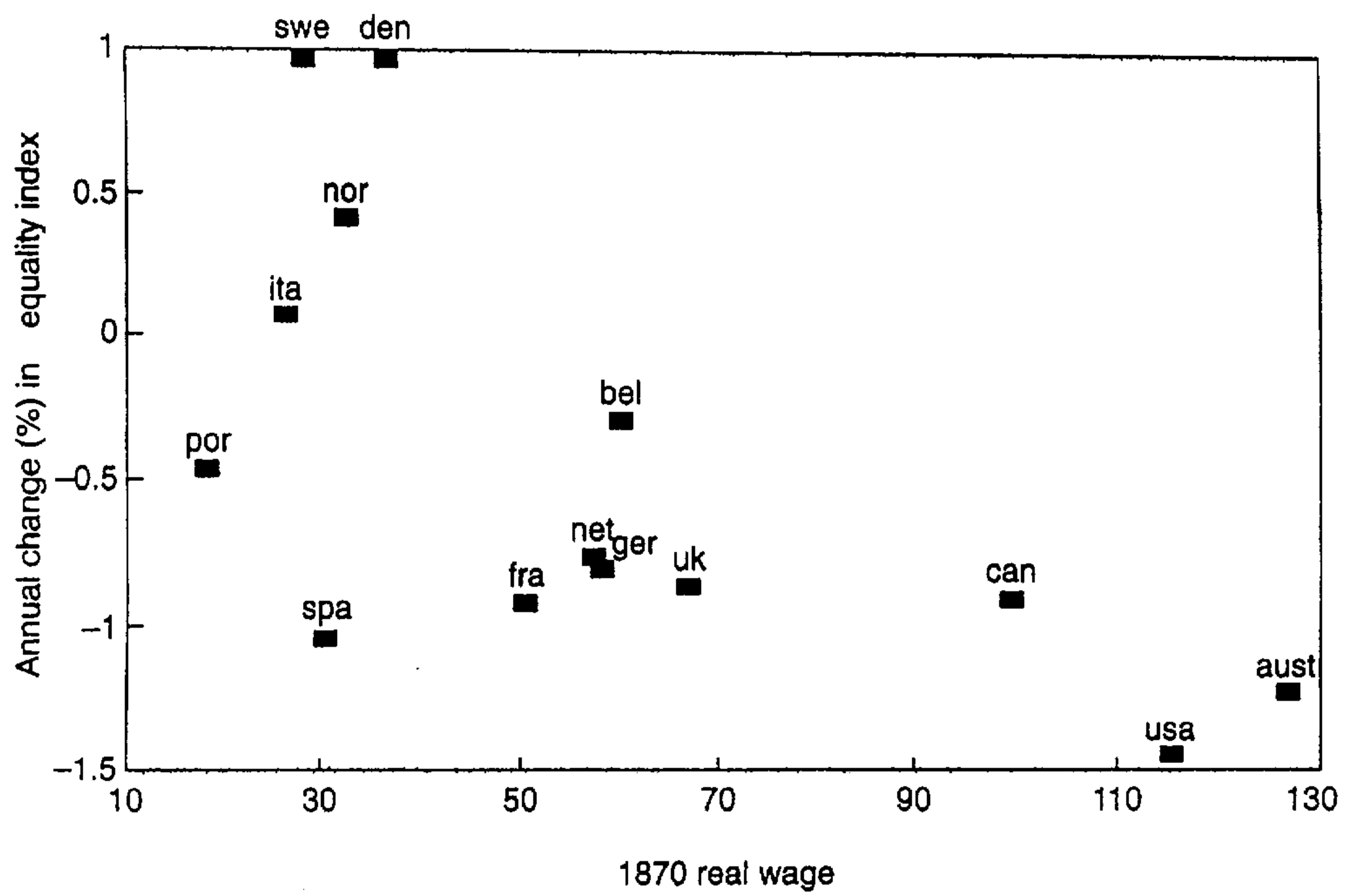


Source: Bourguignon and Morrisson (2001). The "countries" here consist of 15 single countries with abundant data and large populations plus 18 other country groups. The 18 groups were aggregates of geographical neighbors having similar levels of GDP per capita, as estimated by Maddison (1995).

**Figure 2 Average World Tariffs Before World War II**

(Source: Coatsworth and Williamson 2002, Figure 1)



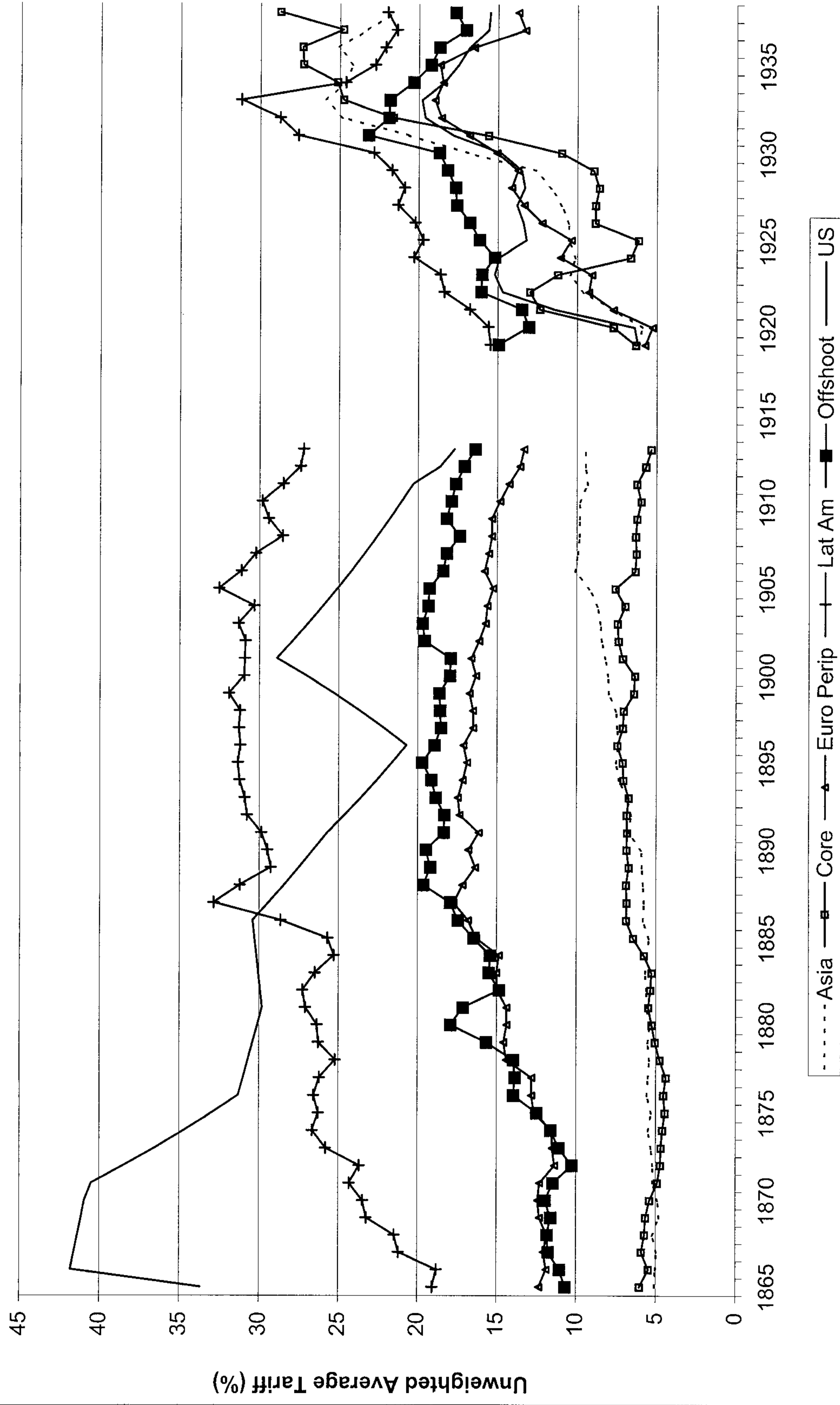


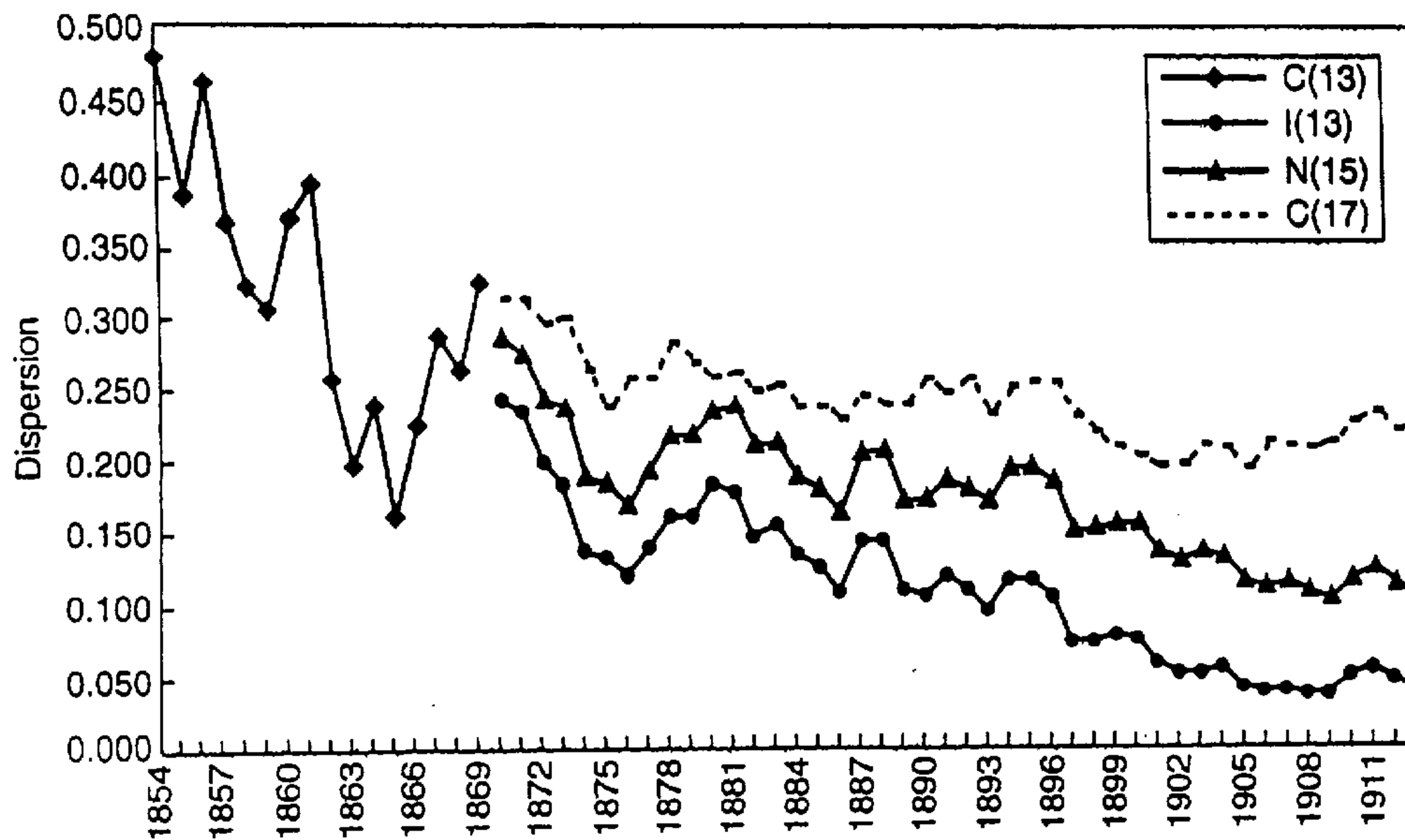
**Figure 3**

**Initial Real Wage versus Subsequent Inequality Trends 1870-1913**  
 (Source: O'Rourke and Williamson, 1999, Figure 9.2)

### Figure 4 Unweighted Average of Regional Tariffs Before World War II

(Source: Coatsworth and Williamson 2002, Figure 2a)





**Figure 5**

**Real Wage Dispersion in the Atlantic Economy 1854-1913**  
 (Source: O'Rourke and Williamson, 1999, Figure 2.2)