

Inequality and Economic Integration

Edited by
Francesco Farina
and Ernesto Savaglio



Inequality and Economic Integration

Globalization and economic integration have impacted on the quality of life and individual well-being across the world. Attempts to evaluate the impact on income dispersion from this process have been extremely controversial. *Inequality and Economic Integration* provides the first real attempt to build up a theoretical framework and indices examining the relationships between the recent acceleration in economic integration and inequality among persons and countries. The aim is to enable social and political institutions to monitor increasing disparities in well-being and social exclusion.

The contributions in this volume cover different subfields of economics and examine both the negative and positive spillover effects of economic integration on individuals, social groups and nations. Since the impact of globalization on the most deprived people is multidimensional in nature, the theoretical framework is extended to inequality in a multivariate context where several individual characteristics are simultaneously considered.

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Introduction

Francesco Farina and Ernesto Savaglio

In the last two decades, the acceleration in economic integration has affected the quality of life and the standard of living. The elimination of barriers to trade in goods and services, the liberalization of capital markets, the transnational mobility of workers, the worldwide diffusion of information and communication technologies boosting Foreign Direct Investment (FDI) and the outsourcing of production processes in newly developing areas constitute an unprecedented clustering of technological and institutional innovations. More generally, a variety of structural changes in international politics have hugely narrowed the distance among nations as well as among individuals. In most advanced countries, economic integration has also been fostered by the expanding role of the market after privatization programmes, pro-market legislation and the rolling-back of redistribution and stabilization policies.

The evaluation of the impact on income dispersion stemming from these globalization processes is a controversial issue. For the same period, Bourguignon and Morrison(2002) show that the interpersonal world income disparity is broadly constant according to the Gini inequality index. However, the *between-country* income inequality appears to be decreasing, mainly as an effect of the Southeast Asia and China high growth rates (Sala-i-Martin, 2002). Based on this evidence, the Washington consensus praises globalization as a Pareto-improvement in the worldwide social welfare that will sooner or later be beneficial to all individuals. Yet, the Gini index of interpersonal world income inequality is widening, in the population-weighted computation by Milanovic (2002) aimed to take into account the income polarization between urban and rural populations in India and China. Therefore, inequality criteria allow for different implications, while apparently globalization is not a homogenizing process smoothing out disparities in the individual standard of living.

The aim of this volume is to expound and possibly clarify the relationship between globalization and inequality. The included contributions cover different sub-fields of economics and witness how strongly the scientific community is committed to the refinement of categories and empirical tools. After a Historical overview, chapters are organized in three categories: Income inequality, Globalization and well-being and Multidimensional inequality.

In his historical introduction J.G.Williamson (Globalization, income distribution, and history) observes that the deceleration following a period of faster economic integration may have a varying impact on economic growth and inequality. After the discovery of the New World, several constraints hampered the expansion of world trade. In the aftermath of the Second World War, the strengthening in economic relations brought about high growth rates. In most advanced countries, national and local policies aimed at compensating the *losers* from economic integration impeded that the rise of *between-*

country income inequality could be followed by the rise of the *within-country* income inequality. Williamson concludes that conflicts of interest are much easier to compromise when economic growth is sustained and led by sound economic forces.

Part I and Part II of the volume focus on how and to what extent acceleration in economic integration affects inequality in income and well-being. Wage inequality represents the main indicator of income disparities across individuals. A plurality of economic and institutional factors affect labour earnings. In the advanced countries, trade openness has reduced the wage level of low-skilled worker, as an effect of higher imports of the low-skilled intensive products and a lower labour demand for the low-skilled workers. Furthermore, technical change paves the way to the rise in wages and salaries of the high-skilled workers belonging to top deciles of the earnings distribution. Labour market institutions also influence wage dispersion. The fall in the wages of the low-skilled workers is restrained by the bargaining power of the unions and welfare benefits preserve their quality of life. Since legislation enforcing job protection or minimum wage negatively impact on the employment and participation rates, labour market deregulation is expected to induce a higher employment rate.

Atkinson and Brandolini (Earnings dispersion to income inequality in European and US labour market) describe a variety of interactions between earnings inequality, the labour market and redistributive institutions. Wage dispersion depends on the share of unskilled workers, the skill premium and the unemployment rate. The tax and benefits system reduces the rise in inequality caused by globalization and technical progress. However, the more the employment rate is depressed, the more the question of the welfare state sustainability negatively impinges on the degree of coverage, in terms of both the number of the individuals insured and the generosity of the benefits. The authors remark how different employment rates and redistribution systems entail a diverging downward movement for the United States and the European Union of the earnings distribution Lorenz curves.

Croci Angelini and Farina (The size of redistribution in OECD countries: does it influence wage inequality?) show that the redistributive institutions, in their interaction with the labour market and the technological opportunities of the firms, affect wage dispersion. The decision on the degree of redistribution is motivated by the society's preference for 'risk insurance'. According to heterogeneous preferences for redistribution determined by the median voter's income with respect to the average level, they distinguish four systems of social protection in the OECD countries. The impact of redistribution in reducing the market income dispersion is much wider in the Scandinavian and the Continental countries compared to the Mediterranean and the Anglo-Saxon countries. The authors provide econometric evidence for the claim that the redistribution makes the implementation of both skill-biased technical change and labour market deregulation not only socially sustainable but also employment-enabling.

An ethically acceptable degree of inequality can be better evaluated in a dynamic perspective. If income positions are interchangeable passing from one generation to the next, market economy could promote equality of opportunities. The analysis of the temporal evolution of one resource distribution within a given population is the aim of the work of Checchi and Dardanoni (Social mobility). They discuss social mobility as the intra-/inter-generational transmission of inequality in the long run. The authors show how to have more mobility means to allow for a reduction in equality of opportunities. A

society is certainly less unequal if everybody, independently of his/her ancestors, has access to all available social positions. Moreover, a mobile society is not only even, but also efficient, since the more talented people excel regardless their social origins. Finally, Checchi and Dardanoni argue that to define and then measure social mobility is a difficult task, because of the multidisciplinary nature of the mobility concept. Nevertheless, there is no doubt that a greater degree of mobility opportunities ensures that the social inequality is not perpetuated over time.

The well-being of individuals depend on a variety of personal characteristics. Borghesi and Vercelli (Global health) draw our attention to the circumstance that health conditions are at the crossroad of many issues linking the determinants of well-being. Economists are more and more conscious that the influence of growth and income inequality on health conditions interacts with the double-way correlations among health on one side, and the environment and population dynamics on the other side. Globalization, while boosting per capita income growth, endangers the conditions for sustainability. The economic 'short-termism' triggered by globalization may depress educational attainments and exacerbate environmental degradation, thus worsening the quality of life. The authors show that individuals in the lowest deciles of the income distribution suffer from relative deprivation in health. They are likely to be excluded from both the workforce and the social networks, and as a consequence their life expectancy is even reduced.

Economic integration has exposed individuals to the risk of contingencies negatively affecting their well-being, but also heterogeneity across growth rates counts much in shaping standard-of-living profiles. Gaffard and Punzo (Economic integration and cross-country convergence: exercises in growth theory and empirics) investigate the interplay between economic integration and the evolutionary path of per capita income among countries. Technical progress differently impacts on the economic structures in different areas. The diversity of patterns of growth in Europe, United States and Japan have been deeply shaped by country-specific fluctuations around potential of both actual employment and output. As it is also witnessed by the experience of transition countries in Eastern Europe and Latin America, globalization by no means makes different growth paths to collapse in a unique steady state. Since the interpersonal income dispersion greatly depends on the specific growth characteristics, in order to set up the most appropriate re-equilibrating policies, a deeper understanding of the different institutional underpinnings of growth regimes is needed.

Van der Ploeg (Are the welfare state and redistribution really so bad for the economy? effects of reciprocal altruism, consumer rivalry and second best) discusses whether public institutions should take into account the increase in individual risk to which we are exposed after globalization. He claims that the rationale for promoting redistributive policies in an increasingly individualistic environment relies on beliefs held by people about the efficiency and the ethical foundations of a public insurance system. So doing, the acceptance of high tax and high welfare benefits can be traced back to the importance of reciprocity in fostering cooperative behaviour across individuals. The fact that individuals care about relative income and mutually monitor the level of their respective effort in promoting the social welfare is at the origin of the economic success of countries with large welfare institutions. In a second best world, the most sensible policy to cope with inequality consists in institutions devoted to the protection of both market incentives and 'disadvantaged' individuals.

The problems faced by nations undertaking an economic integration are magnified by the heterogeneity of welfare institutions. Pagano (Cultural diversity, European integration and welfare state) tackles the problem of conciliating the need for public and merit goods provision with high preference heterogeneity across the integrating European countries. Differently from the United States, whose cultural standardization makes social insurance difficult to be accepted, cultural diversity within the EU at the same time requires and obstacles a comprehensive system of social protection. A limited cultural standardization, as a substitute for social protection, could be promoted only at a cost of penalising social groups unable to substitute cultural standardization for social insurance. Granted that a free choice among different systems of social insurance and redistributions is ruled out, the solution suggested by Pagano consists in a system of mutual insurance among the different welfare systems, making economic integration compatible with social protection.

Chapters in [Part I](#) and [Part II](#) indicate that globalization tends to concentrate a majority of human resources (human capital, intellectual property rights, institutions for lower and upper education) in the hands of the top social groups making inequality increase. The comprehension of the multifaceted interconnections between inequality and globalization is far to be easy. The previous analyses suggest that new tools are required in order to capture the multidimensional worsening of individual living conditions due to globalization. In this perspective, [Part IV](#) of the volume is theoretical in nature and represents a complete survey of the complex problem of extending the ranking principles from the univariate to the multivariate inequality case. Classical literature on economic inequality measurement depicts disparity of an attribute (typically income) in a given population. Since people differ in many aspects besides income, this seems an unsatisfactory approach. Many scholars have then attempted to extend the unidimensional inequality criteria to a multivariate context where several individual characteristics are simultaneously considered.

Theoretical arguments have been provided which justify the use of standard stochastic dominance and Lorenz dominance for making comparisons of individual welfare in terms of inequality. Trannoy (Multidimensional egalitarianism and the dominance approach: a lost paradise?) focuses on a generalization of the Lorenz criterion to the multidimensional case and on the dominance approach with symmetric and asymmetric treatment of the personal characteristics. In fact, Trannoy first discusses the advantages to compare two multivariate distributions by using the notion of price majorization and then reviews the stochastic dominance approach to multidimensional disparity. He thinks over inequality in a unidimensional context as a quiet world, where the fundamental result of Hardy, Littlewood and Pölya (1934) allows us to live in a sort of theoretical paradise where everything works. On the contrary, there exists no similar gem for multidimensional inequality, but few approaches that do not provide a unified field.

Economists draw positive and normative conclusions from results provided by several *a priori* selected inequality indices. Weymark (The normative approach to the measurement of multidimensional inequality) provides a comprehensive review of the literature on normatively based dominance criteria in a multidimensional inequality setting. Following the approach to the univariate inequality measurement, a multidimensional inequality index is axiomatically constructed according to a two-step aggregation procedure. At the first stage, an evaluation (utility) function measures the

well-being of each individual endowed with an allocation of attributes and a unidimensional (utility) distribution is obtained by aggregation. In the second stage, the individual utilities are collected by a univariate inequality index and an overall social evaluation is then supplied. The required crucial assumption is the decomposability property of the evaluation function used to rank multivariate distributions according to their social desirability. Weymark discusses the set of axioms used for generalizing to multivariate distributions the most widely applied inequality indices, namely the class of inequality indices of Atkinson-Sen-Kolm, the class of generalized entropy (inequality) indices and finally the class of Gini multidimensional indices.

A critical examination of the main contributions to the new field of multidimensional inequality is provided by Savaglio's work (Three approaches to the analysis of multidimensional inequality). According to the different methodology applied, he divides the existing literature, extending the one-dimensional inequality criteria to a multidimensional context, in three main approaches. The first one relies on Social Evaluation Functions (SEF) which are additive separable. The assumption of separability is quite an unrealistic hypothesis, as the correlation between individual attributes is a rather pervasive phenomenon. The second approach consists in the multidimensional extension of some (well known classes of) univariate inequality indices. The main criticism to this research approach is the loss of information we suffer when the comparison of multivariate distributions is limited to comparing scalars. The third approach evaluates multidimensional inequality using tools of convex analysis. Savaglio argues that the results of this latter approach are analytically sophisticated and difficult to implement when one turns to the *empirical* evaluation of disparity.

A more policy oriented appraisal of multidimensional inequality is presented by Fleurbaey (Social welfare, priority to worst-off and dimensions of individual well-being). He examines an axiomatic extension of some one-dimensional measurement criteria of individual well-being to essentially multidimensional measures of 'primary goods' and/or 'capabilities'. In such a setting, individual preferences over different dimensions are to be taken into account. Starting with the Pigou-Dalton principle of transfers and its specifications, inequality aversion is introduced in (personal and then) social preferences. In so doing, the author proposes a method to construct a SEF that avoids interpersonal comparisons and relies on ordinal preferences. According to such multidimensional inequality approach, a SEF of *maxmin* type singles out as the only tool satisfying a set of mild-looking conditions on preferences for equity. Finally, Fleurbaey applies his methodology to labour market, where people differ for the quantity of labour they offer and net income they earn and to the measurement of economic globalization.

We have considered economic integration as influencing many inequality dimensions, stressing that economic research urges new tools for analysing multidimensional disparity. While much work remains to be done, some policy proposals stemming from the presented contributions are worth to be evaluated.

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Part I
**Inequality in an historical
perspective**

1

Globalization, income distribution and history

Jeffrey G. Williamson

1.1 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 chapter begins with a survey of this history in order to place contemporary events in better perspective. It then asks whether globalization raised world inequality. This question can be split into two more: What happened to income gaps between nations? What happened to income gaps within nations? This chapter stresses on the second two questions, the reason being that answers to these have more relevance for policy and for the ability of a globally integrated world to survive. Indeed, at various points in the chapter, I ask whether global backlash in the past was driven by complaints of the losers. Finally, this chapter also stresses the contribution of world migration to poverty eradication.

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 (Bourguignon and Morrisson, 2002; Dowrick and DeLong, 2003; Pritchett, 1997). [Figure 1.1](#) 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 irrelevant, and for two reasons: first, policy is formed at the country level, and it is changing income distribution within borders that usually triggers policy responses; and second, it is the political voice of the losers that matters, and they can be at the top, the bottom, or the middle of that distribution.

I start by decomposing the centuries since 1492 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 backlash.



Figure 1.1 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).

1.2 Making a world economy

1.2.1 Epoch I: anti-global mercantilist restriction 1492–1820

The Voyages of Discovery induced 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 Gross Domestic Product (GDP) per capita, domestic relative commodity prices, and/or relative endowments must be altered. True, there was a world trade boom after 1492, and the share of trade in world GDP increased markedly (O’Rourke and Williamson, 2002). 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. 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 to choke off trade.

Since there is so much confusion in the globalization debate about its measurement, it might pay to elaborate on this point. Figure 1.2 presents a stylized view of post-Colombian trade between Europe and the rest of the world (the latter denoted by an asterisk). MM is the European import demand function (i.e. domestic demand minus domestic supply), with import demand declining as the home market price (p) increases. SS is the foreign export supply function (foreign supply minus foreign demand), with export supply rising as the price abroad (p^*) increases. In the absence of transport costs, monopolies, wars, pirates, and other trade barriers, international commodity markets would be perfectly integrated: prices would be

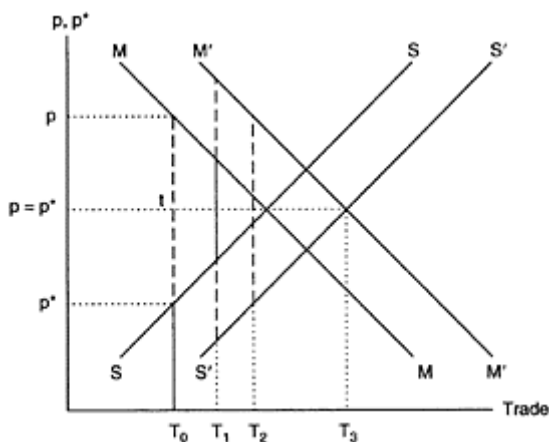


Figure 1.2 The European overseas trade boom 1500–1800.

the same at home and abroad, determined by the intersection of the two schedules. Transport costs, protection, war, pirates, and monopoly drive a wedge (t) between export and import prices: higher tariffs, transport costs, war embargoes, and monopoly rents increase the wedge while lower barriers reduce it. Global commodity market integration is represented in Figure 1.2 by a decline in the wedge: falling transport costs, falling trading monopoly rents, falling tariffs, the suppression of pirates, or a return to peace all lead to falling import prices in both places, rising export prices in both places, an erosion of price gaps between them, and an increase in trade volumes connecting them.

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. Findlay and O'Rourke, 2003). However, Figure 1.2 makes it clear that 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. After all, outward shifts in either import demand or export supply could also lead to trade expansion. Thus, [Figure 1.2](#) argues that the *only* irrefutable evidence that global commodity market integration is taking place is commodity price convergence. However, we cannot find it.

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, 2002).¹ The world trade boom after Columbus would have been a lot bigger without those anti-global interventions.

1.2.2 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 the First World War (O'Rourke and Williamson, 1999). 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, 2003). The political backlash of the late nineteenth century and interwar period was absent in Asia and Africa—partly 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. Thus, the globally 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 Europe and the periphery was even more dramatic than it was within the Atlantic economy.

In short, the liberal dismantling of mercantilism and the worldwide transport revolution worked together to produce truly global commodity markets across the nineteenth century. The persistent decline in transport costs worldwide 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 globalization events were met with rising levels of protection in Latin America, the United States, and the European periphery, and to very high levels. However, I postpone until the end of this chapter the question as to whether it was globalization backlash that triggered protection in the periphery or whether it was something else.

Factor markets also became more integrated worldwide. As European investors came to believe in strong growth prospects overseas, global capital markets became steadily

more integrated, reaching levels in 1913 that may not have been regained even today (Clemens and Williamson, 2004b; Obstfeld and Taylor, 2003). International migration soared in response to unrestrictive immigration policies and falling steerage costs (Chiswick and Hatton, 2003; Hatton and Williamson, 1998), but not without some backlash: New World immigrant subsidies began to evaporate toward the end of the century, political debate over immigrant restriction became very intense, and, finally, the quotas were imposed. In this case, it is clear that the retreat from open immigration policies to quotas was driven by complaints from the losers at the bottom of the income pyramid, the unskilled native born (Chiswick and Hatton, 2003).

1.2.3 Epoch III: beating an anti-global retreat 1913–1950

The globalized world started to fall apart after 1913, and it was completely dismantled between the wars. New policy barriers were imposed restricting the ability of poor populations to flee miserable conditions for something better, barriers that still exist today, a century later. Thus, the foreign-born share in the US population fell from a pre-1913 figure of 14.6 percent to an interwar figure of 6.9 percent. Higher tariffs and other non-tariff barriers choked off the gains from trade. Thus, barrierridden price gaps between Atlantic economy trading partners doubled, returning those gaps to 1870 levels (Findlay and O'Rourke, 2003; Lindert and Williamson, 2003: 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, 1998:359). In short, the interwar retreat from globalization was carried entirely by anti-global economic policies.

1.2.4 Epoch IV: the second global century after 1950

Globalization by any definition resumed after the Second World War. It has differed from pre-1914 globalization in several ways. Most important by far, factor migrations are less impressive: the foreign-born are a much smaller share in labor-scarce economies than they were in 1913, and capital exports are a smaller percentage of GDP in the post-Second World War United States than they were in pre-Second World War Britain (Obstfeld and Taylor, 1998: Table 11.1). On the other hand, trade barriers are probably lower today than they were in 1913. These differences are tied to policy changes in one dominant nation, the United States, which has switched from a protectionist welcoming immigrants to a free trader restricting their entrance.

Heckscher and Ohlin theory teaches us that trade can be a substitute for factor migration. While modern theory is 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, inequality, and poverty 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.

1.3 Did the second global century make the world more unequal?

1.3.1 *International income gaps: a postwar epochal turning point?*

The Bourguignon and Morrisson evidence in [Figure 1.1](#) 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 longperiod data base contains only 15 countries. Using postwar purchasing-powerparity data for a much bigger sample of 115, Arne Melchior *et al.* (2000) actually document a *decline* in their between-country inequality index in the second half of the twentieth century, and Xavier Sala-i-Martin (2002) shows the same when focusing on poverty. The first three authors document stability in between-country inequality up to the late 1970s, followed by convergence. Other studies find the same fall in between-country inequality after the early 1960s, but 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, significant enough to make their between-country inequality index drop 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?

1.3.2 *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 benefitted leading industrial countries. After all, trade liberalization should have a bigger effect on the terms of trade of countries joining the larger integrated world economy than on countries already members.² And the bigger the terms of trade gain, the bigger the GDP per capita gain.

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. Anti-global policies in the Third World served to lower its GDP below what might have been, but that policy 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 over the first two decades or so of General Agreements on Tariffs and Trade (GATT) brought freer trade and gains from trade mainly to OECD members. However, these facts do *not* suggest that late twentieth-century globalization favored rich countries. Rather, they suggest that globalization favored all countries who liberalized and penalized those (poor preindustrial) who did not.

There is, of course, an abundant empirical literature showing that liberalizing Third World countries gained from freer trade after the OECD leaders set the liberal tone, after the 1960s.

First, a large National Bureau of Economic Research (NBER) project assessed trade and exchange-control regimes in the 1960s and 1970s by making calculations of deadweight losses (Bhagwati and Krueger, 1973–1976). However, these studies used 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. Second, analysts have contrasted the growth performance of relatively open with relatively closed

Table 1.1 Trade-policy orientation and growth rates in the Third World, 1963–1992

<i>Trade policy orientation</i>	<i>Average annual rates growth of GDP per capita (in %)</i>		
	<i>1963–1973</i>	<i>1973–1985</i>	<i>1980–1992</i>
Strongly open to trade	6.9	5.9	6.4
Moderately open	4.9	1.6	2.3
Moderately anti-trade	4.0	1.7	–0.2
Strongly anti-trade	1.6	–0.1	–0.4

Source: Lindert and Williamson (2003).

Note

Table 3 based on the World Bank data.

economies, as illustrated in [Table 1.1](#). Yet, 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 of the credit for raising income. Third, there are country event studies which show that when Third World trade policy regimes changed dramatically, their growth performance improved (Dollar and Kraay, 2000a). Fourth, macroeconomic analysis has been used in an attempt to resolve the doubts left by simpler historical correlations. 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.

1.3.3 When the twentieth-century leader went open: the United States

The recent American surge in wage and income inequality generated an intense search for its sources. First, there were the globalization sources. These included the rise in unskilled worker immigration rates, due to rising foreign immigrant supplies and to a liberalization of US immigration policy. Increasing competition from imports that used unskilled labor intensively was added to the globalization impact, a rising competition due to foreign supply improvements (aided by US outsourcing), international transportation improvements, and trade-liberalizing policies. Second, there were sources apparently unrelated to globalization, like a slowdown in the growth of per worker skill

supply and biased technological change that cut the demand for unskilled relative to skilled workers.

The debate evolved into a “trade versus technology” contest, although it might have learned far more by greater attention to immigration and skills (or schooling) supply, and by attention to the century *before* the 1970s. Some agree with Adrian Wood (1998) that trade was to blame for much of the wage widening. Others reject this conclusion, arguing that most or all of the widening was due to a shift in technology that has been strongly biased in favor of skills. Robert Feenstra and Gordon Hanson (1999) guess that perhaps 15–33 percent of the rising inequality was due to trade competition. In any case, everyone seems to agree that going open in late twentieth century was hardly egalitarian for America.

1.3.4 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. Although there wasn’t much widening in *full-time labor earnings* for France or Japan, and none at all for Germany or Italy, income measures that take work hours and unemployment into account reveal some widening even in those last four cases. A recent study surveyed the inequality of disposable household income in the OECD since 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, rather than in wage rates.

1.3.5 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. Until recently, it had concentrated on six Latins and three East Asians, and the assessment diverged 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 (Hanson and Harrison, 1999; Robbins, 1997). Why the difference?

As Adrian Wood 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 pro-global move coincided with the major entry of China and other Asian exporters into world markets, forcing Mexico to face new competition in all export markets. Historical context could also explain why trade liberalization coincided with wage widening in other Latin countries, and why it coincided with wage narrowing in East Asia in the 1960s and early 1970s. 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 4 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. India's inequality has risen since liberalization started in the early 1990s. Indonesian incomes became increasingly concentrated in the top decile 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 state assets to a few oligarchs.

1.3.6 Border effects, limited access, and the Third World

Income widening in these four giants dominates global trends in within-country inequality, but how much was due to pro-global policy? Probably very little. Indeed, much of the inequality surge during their liberalization experiments seems linked to the fact that the opening was incomplete and selective. That is, the rise in inequality appears to have been based on the exclusion of much of the population from the benefits of globalization. China, where the gains since 1984 have been so heavily concentrated in the coastal cities and provinces, offers a good example. 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, but the pronounced surge in inequality 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.

Consider another example. In the aftermath of GATT-related liberalization in 1986 and of North American Foreign Trade Agreement (NAFTA)-related liberalization in 1994, 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? Apparently, since Raymond Robertson (2001) has shown that the Stolper-Samuelson predictions work just fine for Mexico after 1994, if one allows for a reasonable three to five year lag.

1.4 Did the first global century make the world more unequal?

1.4.1 *Global divergence without globalization*

Figure 1.1 documents the rise of income gaps between nations since 1820. While the evidence may not be as precise, 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, living standards, health, and (especially) output per capita indicators all point to an early modern “great divergence” which took place 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 century. 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 region on earth. This divergence was even greater in real than in nominal terms, because luxuries became much cheaper relative to necessities (Hoffman *et al.*, 2002). Thus, global inequality rose long before the First Industrial Revolution. Industrial revolutions were never a necessary condition for widening world income gaps.

Despite the popular 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 and European discovery. 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 the living standards of anyone but the very rich. Finally, the migration of people and capital was only a trickle before the 1820s. True globalization began only after the 1820s.

Thus, while global income divergence has been with us for more than four centuries, globalization has been with us for less than two. Globalization has never been a necessary condition for widening world income gaps. It happened with and without globalization.

1.4.2 *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 British trade liberalization were British labor—especially unskilled labor—and the rest of Europe and its New World offshoots, while the clear 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 foreigntrade 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—especially unskilled workers—gained because Britain was a food-importing country and because labor was used much less intensively in import-competing agriculture than was land. Whether and how much the periphery gained also must have depended on deindustrialization there, a long-run force I explore further later.

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

1.4.3 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 (landless) 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 are plotted for the Atlantic economy against initial labor scarcity between 1870 and First World War (Williamson, 1997), they conform to the conventional globalization prediction. 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 European countries which faced the onslaught of cheap foreign grain after 1870, but chose not to impose high tariffs on grain imports, 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 and for whom land (owned by those at the top) was a smaller component of total wealth.

Symmetrically, globalization had a powerful inequalitarian effect in the landabundant and labor-scarce New World. 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 deindustrialization it would have caused (Coatsworth and Williamson, 2004). Indeed, the levels of protection in the United States, Canada, Australia, Latin America, and the European periphery were *huge* compared to Continental Europe: in the 1880s the United States and Latin America had tariffs *five to*

six times higher than Western Europe, and the European periphery had levels *three times* higher!

1.4.4 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 (Diakosawas and Scandizzo, 1991; Hadass and Williamson, 2003). 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 exporting primary products, while they had improved for rich countries exporting industrial products.

The terms of trade can be influenced by changes in transport costs and changes in policy. It can also be influenced by other events, such as world productivity growth differentials across sectors, demand elasticities, and factor supply responses. But since transport costs declined so dramatically in the first global century, 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, nonindustrial periphery even more. But in some parts of the periphery, especially before the 1870s, other factors were at work that mattered even more, and they *greatly* reinforced these pro-global forces.

Probably the most powerful 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 15 years following, Japan's foreign trade rose from virtually nil to 7 percent of national income (Huber, 1971). In home markets, the prices of exportables soared and prices of importables slumped. As a consequence, Japan's terms of trade rose by a factor of 4.9 over those 15 years. Thus, declining transport costs 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 European muscle. 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 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, Asia underwent tremendous improvements in their terms of trade by this policy switch, and it was reinforced by declining transport costs worldwide.

For the years after 1870, there is better evidence documenting terms of trade movements the world around, country by country (Coatsworth and Williamson, 2004; Hadass and Williamson, 2003; Williamson, 2002). Contrary to the assertions which Prebisch and Singer made a half-century ago, not only did the terms of trade improve for a good share of the non-Latin American poor periphery up to the 1890s, but they improved a lot more than they did in Europe. Why am I able to report such different