

NBER WORKING PAPER SERIES

TWO WAVES OF GLOBALISATION:
SUPERFICIAL SIMILARITIES,
FUNDAMENTAL DIFFERENCES

Richard E. Baldwin
Philippe Martin

Working Paper 6904
<http://www.nber.org/papers/w6904>

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
January 1999

We thank Assar Lindbeck, Horst Siebert, Ed Leamer, and other participants at the Kiel Week Conference for comments, corrections, and encouragement. The Swiss National Science Foundation Grant 12-50783.97 provided support for this research. The views expressed here are those of the author and do not reflect those of the National Bureau of Economic Research.

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Superficial Similarities, Fundamental Differences
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NBER Working Paper No. 6904
January 1999
JEL Nos. F1, F4, R1, F15, F22, F40

ABSTRACT

This paper looks at the two waves of globalisation (roughly 1820-1914 and 1960-present) focusing on key economic facts (trade, investment, migration, and capital flows, Industrialisation/de-industrialisation, and income convergence/divergence), economic beliefs and policymaking environments. The two waves are superficial similarities but are fundamentally different. Chief similarities include aggregate trade and capital flow ratios, and the importance of reductions in barriers to international transactions. The fundamental difference lies in the impact that these reductions had on trade in goods versus trade in ideas. Initial conditions constitute another important difference. Before the first wave, all the world was poor and agrarian. When the second wave began, it was sharply divided between rich and poor nations.

Richard E. Baldwin
Grad.Inst.of Inter'l Studies
11a, Ave de la Paix
CH-1202 Geneva
Switzerland
and NBER
Baldwin@hei.unige.ch

Philippe Martin
Grad.Inst.of Inter'l Studies
11a, Ave de la Paix
CH-1202 Geneva,
Switzerland

1 Introduction

Globalisation is creating a brave new world, according to William Greider's bestseller *One World, Ready or Not*. Page after page reveals the startling novelty of the new age, but his first chapter, "The Storm Upon Us," best encapsulates his view. "The logic of commerce and capital has overpowered the inertia of politics and launched an epoch of great social transformations, " in fact, "commerce and finance have leapt inventively beyond the existing order and existing consciousness of peoples and societies."

This is glo-baloney, of course. The world has seen two waves of globalisation in the past 150 years, and in some ways, the world of 1914 was more tightly integrated than ours is today. In 1919 Keynes wrote:

What an extraordinary episode in the progress of man that age was which came to an end in August 1914! ... The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth ... he could at the same time and by the same means adventure his wealth in the natural resources and new enterprise of any quarter of the world ... he could secure forthwith, if he wished it, cheap and comfortable means of transit to any country or climate without passport or other formality..." (Keynes, 1919:6, quoted in Sachs and Warner 1995).

Globalisation it seems is not quite as new as some would have it. Indeed, many recent globalisation studies are just as unoriginal as the facts, given that they echo analysis broached in the 1960s and 1970s under the monikers of 'interdependence' and 'internationalisation'.¹

Nevertheless, the statement that there is nothing new is almost as wrong as the claim that it is unprecedented. The first globalisation wave—roughly 1870-1914—and the second—roughly 1960 to present—are superficially similar but they differ in important ways. This paper reviews some evidence on both globalisation waves, focusing on three key aspects of globalisation:

- Trade, investment, migration, and factor prices,
- Capital flows and markets, and
- Industrialisation, and income convergence/divergence.

After examining the data in the next three sections (in reverse order), we examine how economic beliefs and the policymaking environments differ between the two globalisation waves. The final section summarises the similarities and differences between the two.

The main conclusion that we take away from this exercise is that the two waves of globalisation share many superficial similarities but are fundamentally different. The chief similarities lie in aggregate trade-to-GDP and capital-flows-to-GDP ratios. These stand today approximately at the level that they attained at the end of the 19th century. Moreover, both globalisation waves were driven by radical reductions in technical and policy barriers to international transactions.² Taking a very high level of abstraction, and doing a good deal of violence to reality, we believe that one fundamental difference lies in the impact that these reductions had on trade in goods versus trade in ideas. While both waves saw reductions in both costs, the uniqueness of recent globalisation is heavily shaped by the dramatic reduction in communications

¹ See Cooper (1968, 1973), and Lindbeck (1973, 1975 and 1978); an important theme in this literature is fixed exchange rate management in the face of increased trade and capital mobility. Interestingly, Cooper in the 1960s, like Greider in the 1990s, claimed that internationalisation had outpaced the system's ability to cope. Moreover Cooper (1968:273) -- like Rodrik (1996:63, 1997:78) and Goldsmith (1994) -- recommends protection as a remedy in some cases.

² The waves were separated by the re-construction of protectionist barriers to trade as well as the imposition of capital and migration controls.

cost, what is sometimes referred to as ‘the death of distance.’ A second fundamental difference lies in the initial conditions. At the beginning of the first wave, the world was fairly homogeneous homogeneously poor and agrarian, that is. At the beginning of the second wave, the world was sharply divided between rich industrial nations and poor primary producers.

2 Industrialisation and Income Inequalities

The late 20th century globalisation wave started with a very large North-South income gap and it de-industrialised the North while industrialising the South (or some parts of it). The first globalisation wave industrialised the North, de-industrialised the South, and produced enormous income divergence between groups of nations that were not initially very far apart.

This section documents these facts, turning first to the Industrial Revolution (which drove the first globalisation wave), then to Third World de-industrialisation and finally to the income convergence/divergence issue. The section ends with a simple analytic framework that lays out one explanation of these curious contrasts.

2.1 Industrialisation and De-Industrialisation

2.1.1 The Industrial Revolution

The outcome was revolutionary but the process was evolutionary. The Industrial Revolution, which started in Great Britain, was a 100-year sequence of incremental technical, organisational, social and institutional changes. These increments, however, gradually amalgamated into a massive transformation of the British economy. The amalgamation’s starting date may be placed in the 1720s but it picked up speed as the 18th century ended and the 19th began. Placing a precise year on the Revolution is misleading; the growth acceleration was the fruit of many small transformations, not the result of a sharp policy or technological change. Be that as it may, 1776 provides as good a landmark as any since Crafts (1995) finds a structural break in the growth of British industrial production in that year. Conveniently, it is also the publication date of Adam Smith’s *The Wealth of Nations*.

The textiles and iron sectors played decisive roles in the industrial revolution, with key textiles inventions coming in the 1730-1780 period. The 1780s also saw major breakthroughs in steam engine technology. Important advances in ironmaking became widespread in the 1760s, 1770s and 1780s. Between the 1770 and the 1840, significant progress by the British machine tool industry greatly improved the precision and lowered the cost of turning iron into profitable goods such as steam engines, rails and looms.

Improved transportation was important to the Industrial Revolution. Red-letter improvements in inland water and road transportation networks appeared in the last decades of the 18th century. These expanded the internal market for manufactured goods and lowered the cost of obtaining raw materials. For instance the London-Birmingham road trip, which took two days in the 1740s, took ‘only’ 19 hours in the 1780s.

Key transport-technology advances started the first globalisation wave in approximately 1820. The most important were the rapid expansion of railroad networks (1820s-1850s), and the widespread use of steam-driven ships for inland and oceanic routes (1840s-1870s), according to Hugill (1993). Railroads revolutionised land transport by opening up vast tracts of land to the world market (earlier forms of land transport were only economic for goods with very high value-to-weight ratios). Steamship likewise revolutionised ocean travel. In the late 1830s, a top-class sailing ship from Liverpool could take up to 48 days to reach New York and 36 days to return. By the 1840s, steamships brought the normal voyage to 14 days in either direction (with much less variance). The 1870s saw further advances with the introduction of steel hulls that were lighter, stronger and required less fuel.

Finally, the whole process was fostered by the rapid development of financial intermediation (centred on in London) during the last half of the 18th century.

These advances radically re-oriented the British economy. The share of workers in industry rose progressively from 19% (1700) to 24% (1760) to 30% (1800) to 47% (1840), finally peaking at 49% in 1870 (Crafts 1989:417). The nation also shifted from a rural society to having almost two-thirds of its populations in urban areas. Although rapid total-factor-productivity growth was not remarkable, according to Nick Crafts, labour productivity did rise rapidly in some industries. From 1830 to 1860, output per hour rose 270% in cotton spinning and 708% in cotton weaving (Crafts 1989:426). During the same period,

Great Britain became a large food importer and a large exporter of industrial goods.

The growth effects of the industrial revolution look paltry next to the double-digit rates routinely observed in today's rapid industrialisers. Per capita growth rates rose from something close to zero in the first half of the 18th century to no more than 2-3% per annum in the mid-1800s. Nevertheless, even these low rates were revolutionary.

Continual growth opened the door to steady improvements in the material conditions of mankind. More importantly, industrialisation altered the fundamental character of international relations. From the beginning of recorded history until the industrial revolution, income was derived mainly from land. Wealth based on land is a zero-sum game, so violent conflicts over turf were inevitable. Wealth based on industry, by contrast, is a positive sum game—despite the fact that mercantilist and Marxist notions about competition for markets obfuscated this message for almost a century. It took two world wars to teach the lesson but the notion that more territory equals more power has been firmly relegated to intellectual history, at least in the advanced industrialised nations.

Spreading and Deepening Industrialisation

The French revolution (1789) and Napoleonic Wars (1805-1815) dominated events on the Continent during the decades bracketing the 18th century's closure. They also delayed the spread of industrialisation due to "capital destruction and losses of manpower; political instability and a widespread social anxiety; the decimation of the wealthier entrepreneurial groups; all manner of interruptions to trade; violent inflations and alterations of currency." (Landes 1969:142).

Belgium was the first to follow Great Britain into the new age, developing rapidly between 1820 and 1870. France, Switzerland, Prussia and the United States followed in the 1830s and 1840s. Industrialisation eventually spread to Russia, the Austria-Hungarian Empire, Italy, Sweden, Canada and much of the rest of Europe during the end of the 1800s. Rostow (1960) bravely, and controversially, puts dates to the various 'take-offs' (see Table 1).

As the 19th century reached into its second half, new industries and production methods emerged. Thus began the so-called second industrial revolution. In sectors such as steel, chemicals, electrical goods and engineering products based on internal combustion engines, Germany and the US leapfrogged the UK.

The price of sea and land transportation continued to fall with further advances in shipbuilding and railroads. By the 1860s, most major cities were connected by telegraph. The first transatlantic telegraph cable (1866) and the subsequent cabling of all the oceans revolutionised communications, lowering intercontinental communication times from weeks to minutes. Faster and more reliable communications spurred trade and investment. It was also critical to the development of multinationals (Dunning 1983).

Table 1: Rostow's Take-off Dates

UK	1783-1802
France	1830-60
Belgium	1833-60
US	1843-60
Germany	1850-73
Sweden	1868-90
Japan	1878-1900
Russia	1890-1914
Canada	1896-1914

Source: Rostow (1960).

2.1.2 Third World De-industrialisation in the 19th Century

While it is often forgotten, the riches of the East included much more than spices. "Before the 19th century and perhaps not much before it, some presently underdeveloped countries, notably China and parts of India, were believed by Europeans to be more highly developed than Europe" (Kuznets 1965:20). Braudel (1984) and Chaudhuri (1966) show that during the 18th century, the Indian cotton textile industry was the global leader in terms of quality, production and exports. 18th century India and China also produced the world's highest quality silk and porcelain. Before the 18th century, these manufactured goods were exported to Europe in exchange for silver since European manufactures were uncompetitive in the East (Barraclough 1978). Clearly, civilisations that invented gunpowder, paper and oceanic navigation aids were by no means primitive societies just waiting for Europe to develop.

At the end of the 19th century, however, more than 70% of Indian textile consumption is imported (mainly from Great Britain) and India instead became a net exporter of cotton (Braudel 1984). A matching, but less dramatic, story can be told for the Indian shipbuilding and iron industries. Similar cases can be found across Latin America and the Middle East (Batou 1990).

Some authors, such as Bairoch (1993), Braudel (1984) and Bairoch and Kozul-Wright (1996) claim that northern industrialisation caused southern de-industrialisation and this amplified income divergence.

“There seems little doubt that de-industrialisation in the South was the result of a massive inflow of European manufactured imports. This was particularly true of textile and clothing industries, where free trade exposed the local artisanal and craft producers to the destructive competitive gale of more capital intensive, high productivity Northern producers” (Kozul-Wright and Bairoch 1996:16).

Table 2 shows the evolution of per capita industrialisation and de-industrialisation. Note that all nations and regions started at similar levels. In 1750, all European nations were at a level between 6 and 10 (with

(UK in 1900 = 100)	<i>1750</i>	<i>1800</i>	<i>1830</i>	<i>1860</i>	<i>1880</i>	<i>1900</i>	<i>1913</i>
Developed Countries	8	8	11	16	24	35	55
Europe	8	8	11	17	23	33	45
Europe (ex-UK)	7	8	9	14	21	36	57
Austria-Hungary	7	7	8	11	15	23	32
Belgium	9	10	14	28	43	56	88
France	9	9	12	20	28	39	59
Germany	8	8	9	15	25	52	85
Italy	8	8	8	10	12	17	26
Russia	6	6	7	8	10	15	20
Spain	7	7	8	11	14	19	22
Sweden	7	8	9	15	24	41	67
Switzerland	7	10	16	26	39	67	87
UK	10	16	25	64	87	100	115
Outside Europe	7	7	11	17	33	63	116
Canada		5	6	7	10	24	46
USA	4	9	14	21	38	69	126
Japan	7	7	8	7	9	12	20
Third World	7	6	6	4	3	2	2
China	8	6	6	4	4	3	3
India-Pakistan	7	6	6	3	2	1	2
Brazil				4	4	5	7
Mexico				5	4	5	7
World	7	6	7	7	9	14	21

Source: Table 9, Bairoch (1982).

UK’s level in 1900 being 100); all non-European nations were at 7 or 8, except the US, which was at 4. China and India are the chief nations represented in the Third World and they follow very similar paths dropping from something like 8 to about 3. We also see the UK’s spectacular performance and the subsequent catch up of the US. Japan’s industrialisation path mimics that of the world average.

Of course, the basic equality of the per capita level combined with Europe’s small population meant that the Third World ‘industry’ dominated world production in the 18th century (Bairoch 1982 Table 10). For instance, in 1750 the Third World accounted for 73% of world manufacturing output and it continued to account for over half even as late as 1830. By 1913, however, the Third World share had dropped to a mere 7.5%.

This colonial-era de-industrialisation helps explain why many Third World countries were distrustful of unfettered international trade until very recently.

2.1.3 20th Century Industrialisation/De-Industrialisation

While the income gains of frontrunners in the 1st globalisation wave were clearly based on industrialisation, the opposite seems to hold for the 2nd wave. Indeed, apart from the handful of newly industrialised nations (NICs), convergence

<i>% of workforce</i>	<i>1950</i>	<i>1980</i>	<i>1990</i>
Australia	36	32	26
US	36	31	28
Canada	33	33	25
Austria	35	41	37
Belgium	47	35	28
Denmark	33	31	28
Finland	28	35	31
France	35	35	29
Germany	43	45	38
Italy	29	38	32
Netherlands	40	31	26
Norway	33	29	25
Sweden	41	32	na
Switzerland	46	39	35
UK	47	38	29
Japan	23	35	34

Sources: Maddison (1989) Table C-10, World Bank (1997) Table 4.

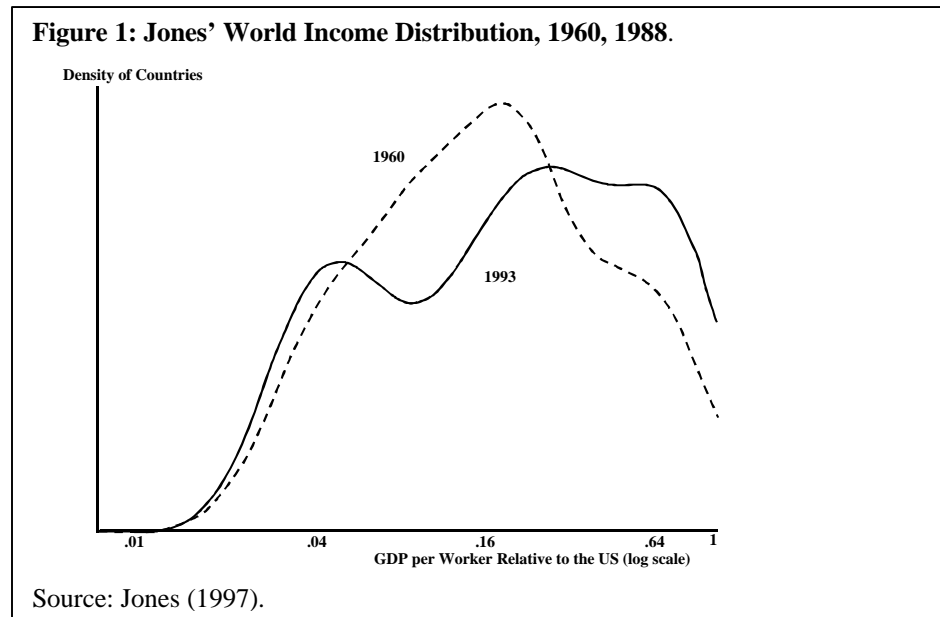
among the high-income countries has been accompanied by a marked de-industrialisation. Table 3 presents some data on this. As can be seen from the table, the share of labour force employment in industry for the OECD nations fell for most nations between 1950 and 1990. Indeed, the annual rate of de-industrialisation jumped up sharply as globalisation picked up pace in the 1980s.

2.2 Global Income Divergence in the 1st and 2nd Waves

By the time frame of human history, today's wide disparity between rich and poor countries is fairly recent. Until the industrial revolution, the whole world was poor and the logic of Malthus kept it that way. The globalisations of the 19th and 20th centuries both produced income divergence in the wider world as well as convergence among a small group of high-end nations. That is, 'twin peaks' convergence story, which has been much discussed in recent years (see Quay 1996) also occurred during the first globalisation wave.

2.2.1 20th Century Globalisation

The literature on post-war 'convergence clubs' or 'twin peaks' is highly developed and widely known, so we do no more than refer to the basic facts and provide a few references. According to Jones (1997) and



Pritchett (1997), income levels of the advanced capitalist nations converged substantially towards that of the United States while US income advanced at a pace of about 2% per annum. Additionally, incomes in a handful of NICs shot up at a truly remarkable pace, allowing them to join the ranks of the world's wealthiest nations. By contrast, incomes in many African, Latin American and some Asian nations rose slower than US incomes between the 1960s and the 1990s; others actually fell.

Figure 1 clearly illustrates this convergence and divergence story. The roughly bell-shaped 1960 distribution has become a twin-peaks distribution, with the rich nations getting richer (relative to the US) and the poor nations getting poor (again relative to the US). Jones (1997) shows that things look rosier when national incomes are weighted by population (mainly since India and China have grown faster than the US).

2.2.2 19th Century Globalisation

The paucity of data makes it more difficult to document changes in the global income distribution during the first wave of globalisation. Nevertheless, many scholars—Braudel, Kuznets, Baumol, Pritchett and Maddison, inter alios—contend that a big North-South income divergence appeared with the first Industrial Revolution.

Table 4 provides some information on the per capita income on the widening of the income distribution in Europe during the 1st globalisation wave. The first two columns show each nation's per capita income

relative to that of Great Britain's in 1860 and 1910 respectively. Slightly less than half the countries closed in on the UK. For some nations – Canada, Germany, Belgium, Denmark, France, Sweden, Switzerland and Argentina – this era marked a truly remarkable catch-up phase and the US actually surpassed its former ruler. But 11 of the 20 European nations in Bairoch's sample and all of the Asian nations in Maddison's sample lost ground. For some, such as Portugal, the drop was dramatic. The last two columns show similar calculations using data from Maddison (1995). If the table 4 data is plotted, the income distribution in 1910 is something akin to a mean-preserving spread of the 1850 distribution. The leftward shift in the lower incomes is especially marked. The Maddison data yields similar conclusions³. In short, both the 1st and 2nd waves of globalisation resulted in overall income divergence together with a top-end convergence.

The forces of history helps to shape these developments in per capita incomes, and we turn now to a simple framework that permits study of these forces of history. It is important, however, to recognise that these changes were also heavily influenced by the choices of policymakers.

2.3 An Analytic Framework

The facts on convergence/divergence and those on industrialisation/de-industrialisation are a bit puzzling.⁴ In a nutshell, we saw that the first wave of globalisation industrialised the North and de-industrialised the South. This in turn generated wide income divergence between groups that were not initially very far apart. The second wave started from a very large income gap and it de-industrialised the North while industrialising the South (or at least a good part of it). Why should globalisation first increase and then decrease income gaps? Why should this convergence U-turn be associated with de-industrialisation of the rich nations?

As it turns out, the insights of Romerian endogenous growth theory and those of Krugmanesque new economic geography provide a rigorous, if highly abstract, framework for organising our thinking about the

Table 4: Income Convergence/Divergence, 1850-1910.

(UK =100)	Bairoch data		Maddison data	
	1860	1910	1850	1913
Denmark	56	78	Canada	54 84
Germany	61	77	US	77 105
Switzerland	72	85	Argentina	56 75
Sweden	52	64	Ireland (b)	40 54
Belgium	70	80	Germany	62 76
Finland	43	47	Finland (a)	32 41
France	66	69	Sweden	55 62
Netherlands	71	72	Belgium	77 82
UK	100	100	Italy (a)	46 50
Norway	57	56	Denmark	72 75
Romania	37	35	Mexico	28 29
Russia	35	31	UK	100 100
Italy	49	44	Norway	46 45
Austro-Hungary	51	46	Austria	70 69
Bulgaria	37	31	Netherlands	80 78
Greece	41	35	France	71 69
Spain	49	41	Russia (a)	32 30
Serbia	39	29	Japan (a)	30 27
Portugal	50	33	Czechoslova	45 42
			Spain	49 45
			Pakistan (a)	22 14
			Switzerland	92 84
			China (a)	22 14
			Indonesia	28 18
			India	23 13
			Bangladesh	22 12
			Hungary (b)	54 42
			Brazil	30 17
			Thailand (b)	30 17
			Portugal	47 27
			Australia	130 109

Notes: (a) 1850 data is from 1820; (b) 1850 data is from 1870

Sources: Maddison (1995) Tables C16,D1, Bairoch (1989) Tables 1 & 4.

³ The relative decline of Russia and the populous Asian nations together with the catch-up of the US, Germany, Benelux and Nordic nations ensure a twin-peaks pattern.

⁴ Early academic contributions on the subject, such as Barro and Sala-I-Martin (1995), suggested that that income convergence was evidence for the neo-classical model whereas non-convergence was evidence for endogenous growth models. The stark-ness of this prediction has become more blurred recently, with examples of new growth models that exhibit convergence (Leung and Quah 1996) and neo-classical growth models that exhibit divergence (Baldwin 1998). This literature, however, is of little use in explaining the convergence U-turn that appears in the historical data.

economics of these facts.⁵ The framework is a stages-of-growth model with four stages and two regions (North and South) that are identical initially.

In the first, pre-globalisation stage, transport costs are high. There is little trade, and industry is primitive, rare and stagnating. Due to the high transport costs, industry is also scattered with a little bit of it in the North and in the South. This geographic dispersion itself contributes to industrial stagnation in the following way. Dispersion hinders interactions among entrepreneurs. This mutes the spillovers that could arise from the odd technological breakthrough occurring in one locale or another. The dampening of spillovers hampers innovation and technological progress and in this way, world growth is retarded.

In a second stage, when transport costs have sufficiently diminished, agglomeration forces (of the type stressed in Krugman 1991) make the even distribution of industry an unstable equilibrium. In this highly stylised world, the regions are initially identical, so the question of which region takes-off is a matter of happenstance. Whichever region edges ahead initially call it the North finds itself in a virtuous cycle. Higher income leads to a larger local market in the North and this in turn attracts relatively more investment to the North. Of course, the higher investment rate leads to a growing market-size gap and the cycle restarts. The spiral is also boosted by the localised nature of technological spillovers. Namely, Northern industry and innovators benefit proportionally more than the South from increasing industrialisation in the North. As the North experiences this stylised Industrial Revolution, Southern industry rapidly disappears in the face of competition from northern exports. In a self-generating process, the North specialises in industry and the South in primary goods.

In short, the first wave of globalisation, which is triggered by lower costs of transporting goods, generates a stark process of specialisation that both promotes and is promoted by expanding trade. The North-South income divergence, Northern industrialisation and South de-industrialisation all appear naturally.

During this first globalisation wave (stage two in the framework), the cost of exchanging goods internationally falls faster than the cost of exchanging ideas and innovations. From 1910 to the late 1960s, the rich-north-poor-south pattern was unchanged. During this stage, meant to reflect important elements of the second globalisation wave, the cost of transporting goods asymptotes towards some natural lower limit, yet the cost of 'trading' ideas continues to plummet with the cost of telecommunications. This stylised fact, which is shown clearly in Section 4.1.1, opens the door to stage four, namely the take-off of a number of developing nations.

When the cost 'transporting ideas' falls sufficiently, the core-periphery configuration becomes unstable, this time due to Krugmanesque centrifugal forces. Southern innovators and industrialist, who now have easy access to the North's technology and cheap labour, begin to close the gap. As industrial investment rises in the South, income rises, spurring local investment, and Southern industrialisation and income growth. Now it is the Southern countries turn to step on the virtuous industrialisation-income growth spiral. Northern industry suffers to some extent from the new competition. The North experiences some de-industrialisation and tends to specialise more in services. In this last stage, the two regions converge towards even income and industrialisation levels.

At first glance, this analytic framework appears to support notions of 'inequalizing trade'. In this abstract world, the big divergence between rich and poor countries is a necessary implication of Europe's Industrial Revolution and the expansion of international trade triggered both. The model, however, departs sharply from the 'inequalizing trade' paradigm one key point. While globalisation first generates massive divergence of real incomes, it subsequently becomes the driving force behind industrialisation, development and income convergence.

3 Capital Markets and Financial Integration

The popular press gives one the impression that the rapid globalisation of financial markets takes humanity into uncharted territory. This is an impression that is easy to accept given the staggering growth of international financial markets. On an average day, turnover in the foreign exchange market has grown from \$190 billion to \$1,190 billion in just ten years. Private lending flows to developing nations have increased sixfold since 1990 (IMF 1996a), and individual and institutional investors are increasingly

⁵ See Baldwin, Martin and Ottaviano (1998) for a more formal presentation.

holding foreign securities. Eichengreen (1994) points out that between 1980 and 1991, US pension funds increased the share of foreign securities in their portfolios from 1% to over 5%, and in other OECD nations the trend is similar. Finally, the world of global finance grows more intricate every year as new and highly sophisticated financial instruments appear continuously.

The popular impression of a brave new world, however, is almost entirely wrong. While there are several distinguishing features of late 20th century financial globalisation, many of its elements resemble the wave of globalisation that ended in 1914. Indeed, the only real debate among informed observers is whether we have returned to 1914-levels of financial integration (Sachs and Warner, 1995), or have yet to reach that those levels (Zevin 1989).

This section considers, in turn, the facts on capital mobility, capital market integration, and financial crisis, all of which are frequently cited as major symptoms of globalisation.

3.1 Capital Mobility

When we read that the IMF is lending record sums to Korea and Indonesia, and that private banks are topping these figures, it is easy to think of massive international lending as a new phenomenon. This is incorrect.

International financial markets in the early part of this century were highly integrated. The gold standard—combined with a dense network of financial institutions centred on London—allowed enormous flows of capital to search the world for the highest return. These flows permitted rapid growth in the ‘settler’ economies (e.g., Australia, Argentina, Canada and US) and, since much of the investment hastened the development of primary resources and vast new settlements, it fostered international trade. This, together with its stable exchange rates and unhindered convertibility, made the gold standard look like the golden age of the international monetary system.⁶

Capital mobility can be measured in different ways, and each way has its shortcomings. National current accounts are a good place to begin since a nation’s current account is by definition a measure of its net capital inflow or outflow. Table 5 (taken from Taylor 1996) provides data on the evolution of national current-account-to-GDP ratios for several countries. Since we are interested in the size of capital flows rather than their direction, the figures are the absolute value of the average current-account-GDP ratios for the various periods. Uniformly we see that numbers for the 1989-1996 period are by no means

Table 5: Capital flows since 1870.

(Average absolute value of current account as percent of GDP)

	UK	USA	Argentina	Australia	Canada	France	Germany	Italy	Japan
1870-1889	4.6	0.7	18.7	8.2	7.0	2.4	1.7	1.2	0.6
1890-1913	4.6	1.0	6.2	4.1	7.0	1.3	1.5	1.8	2.4
1919-1926	2.7	1.7	4.9	4.2	2.5	2.8	2.4	4.2	2.1
1927-1931	1.9	0.7	3.7	5.9	2.7	1.4	2.0	1.5	0.6
1932-1939	1.1	0.4	1.6	1.7	2.6	1.0	0.6	0.7	1.0
1947-1959	1.2	0.6	2.3	3.4	2.3	1.5	2.0	1.4	1.3
1960-1973	0.8	0.5	1.0	2.3	1.2	0.6	1.0	2.1	1.0
1974-1989	1.5	1.4	1.9	3.6	1.7	0.8	2.1	1.3	1.8
1989-1996	2.6	1.2	2.0	4.5	4.0	0.7	2.7	1.6	2.1

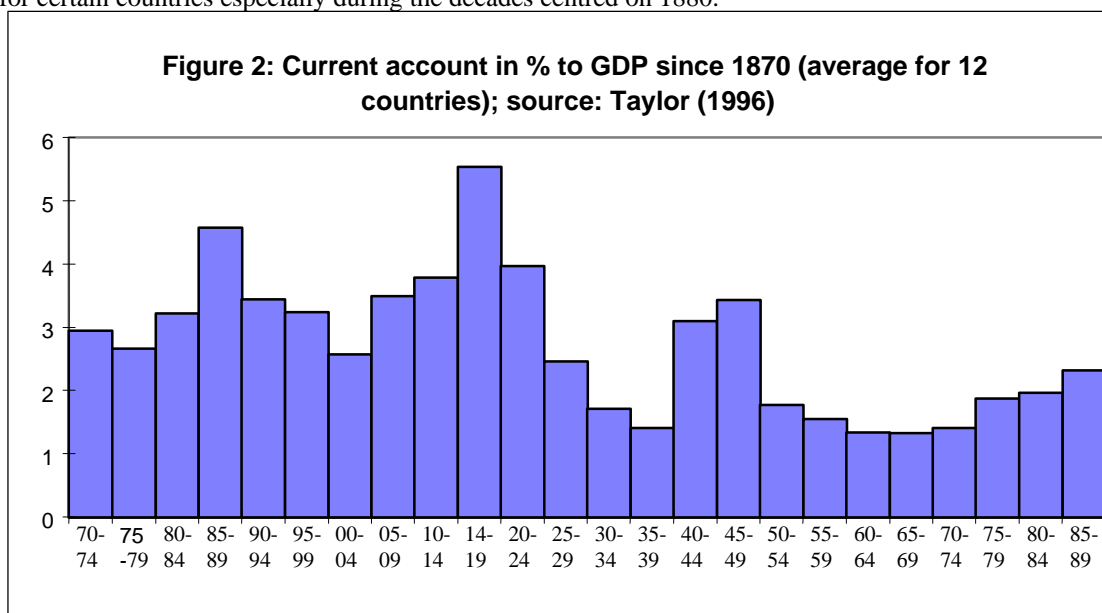
Source: Taylor (1996).

extraordinary. Indeed, except for Germany, Japan and the US, the most recent figures are noticeable smaller than the pre-WWI figures. For the UK, the average was 4.6% of GDP during the period of the Gold Standard, 1870-1914. In the 1920s, capital flows fell in most countries (to around 2.4% in the UK) and even more in the 1930s (1.1% in the UK). Capital flows reached an all time low in the 1950s and 1960s and slowly increased again starting from the 1970s to the 1990s. Although the 1990s figures are significantly higher than in any post World War II decade, they are still lower than those of a century ago.

Figure 2 illustrates the change over time aggregating data for twelve countries (those in the above table

⁶The gold standard was not perfectly stability. Southern Europe and South America nations repeatedly suspended gold convertibility (Flandreau, Le Cacheux and Zumer 1998).

plus Denmark, Norway and Sweden). Before World War I, the average size of capital flows was quite high for certain countries especially during the decades centred on 1880.



These data offer suggestive evidence that the mobility of capital has been subject to wide changes over time with a major dislocation during the Great Depression. More to the point, they suggest that the current international financial system still has a ways to go before it reaches levels of capital mobility attained during the 1st globalisation wave.

3.2 Capital and Financial Market Integration

Capital flow volumes are in themselves important indicators of globalisation. Such flows, however, may give a biased image of capital market integration. On one hand, small flows are consistent with perfectly integrated capital markets as long as the returns to capital have been equalised. On the other hand, large flows are consistent with strong capital-flow restrictions if differences in rates of return are very large. To study the degree of market integration, we look at the relation between national saving and national investment over time.

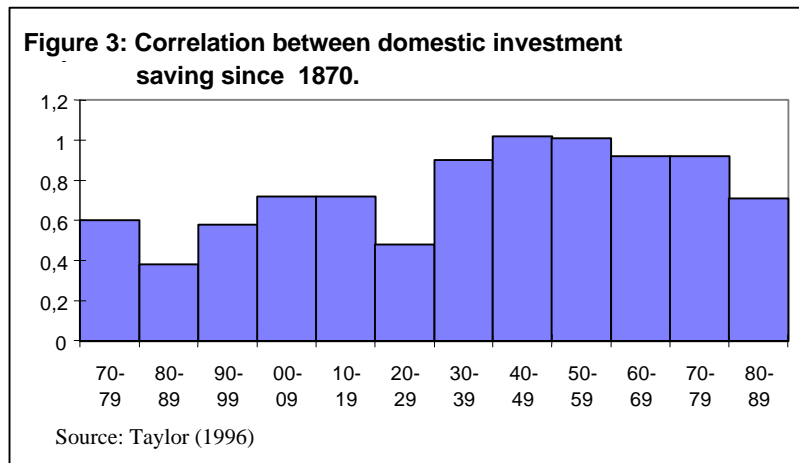
3.2.1 Correlation of Investment and Savings

Feldstein and Horioka (1980) argue that in a world of perfect capital mobility, there should exist no systematic relation between domestic saving and investment since domestic saving would search the world for the highest return irrespective of the state of domestic investment.

Figure 3, taken from Taylor (1996), shows the correlation between domestic investment and saving between 1870 and 1989 for 12 major countries. The correlation displays considerable fluctuation, but since a low correlation indicates a high degree of integration, the figure presents confirms the result that the global capital market is no more integrated now than it was in beginning of the century. Indeed, the figure suggests that the late 19th century experienced significantly greater levels of integration than those observed today. More detailed evidence in Cairncross (1953:104) shows that at least for the UK, the globalisation of capital was far in excess of what we observe today; he estimates that 40% of British national saving was invested abroad in 1907. It also reveals that capital market integration has always been a long way from perfect. Econometric evidence in Zevin (1989) confirms these conclusions.

Several important historical events can be seen in the Figure 3 data. The 1880s were a period of high capital mobility characterised by intense foreign investment, some of it related to the massive expansion of railroad networks on the Continent and 'settler' countries. The crash of the early 1890s dampened flows until the boom of the 1920s⁷.

Again, and more dramatic crash of the 1930s generated a period of greater autarky. This period saw the introduction of stringent capital controls—controls that persisted into the Bretton Woods period. During the post-WWII period, these controls were gradually relaxed and eliminated in many nations. The decline of the investment-saving correlation in the 1980s is significant, but on that account, capital mobility is still lower than during the previous booms of the 1880s and 1920s.



3.2.2 Interest rates and Financial Market Integration

Evidence on nominal interest rates confirms the picture painted by figures 3. Obstfeld and Taylor (1997) look at differentials of onshore and offshore interest rates (so that the rates-of-return are not affected by pure currency risk) for short-term assets. Because the financial community is not known for systematically missing opportunities to make money without risk, this gap suggests the existence of barriers to capital mobility. In particular, Obstfeld and Taylor find that capital markets were poorly integrated in the 1930s and during the whole period of the Bretton Woods system. Differentials have become small again only in the most recent years of the flexible exchange rate regime.

Their empirical estimates also suggest a difference in the nature of financial globalisation at the end of the 19th century and at the end of the 20th century. This difference is that capital mobility at the end of the 19th century seems relatively more important for long-term than for short-term capital flows. The comparison of nominal interest differentials on US and British and short term assets between the end of the 19th century and the decade of the 1990s shows that the former were higher. This is true only for the last decade suggesting also a marked change between the 1980s and the 1990s. While this comparison is imperfect (assets in the two periods are not identical), it is consistent with other evidence. Bayoumi (1998), for instance, concludes that capital mobility is today very high for short-term instruments, and may be higher than for any other period before, but that the same cannot be said for longer-term capital movements.

Further evidence for this can be found in the gigantic foreign exchange market turnover. This turnover—several hundred trillions of dollars a year—far exceeds what would be strictly necessary to finance FDI, trade and current account imbalances. From this, and micro-studies of the foreign exchange market (e.g., Lyons, 1998), we can deduce much of the money is crossing borders many times a year. That is to say, it is invested in short-term assets. While we do not have hard data on the pattern in the late 1800s, the total size of the turnover is surely without precedent.

Bairoch and Kozul-Wright (1996) also insist on the fact that a large part of the capital flows of the late 19th century were long term in nature. Foreign direct investment (FDI) was growing rapidly during this period, accounting for as much as one-third of overseas investment. FDI was considerable in the natural resources sector but also in railways and utilities. Moreover, government borrowing was very important during this period and the flotation of new issues dominated trading of second hand debt.

This difference between the two waves can roughly be associated with the cost of trading ideas. In the

⁷ This decade is, however, marked by considerable heterogeneity across countries.

19th century, the high cost of transmitting knowledge favoured long-term capital investments. The telecommunications revolution of the late 20th century favours the rapid, almost frenetic, movement of highly liquid assets.

3.3 Financial Crises

Perhaps the most spectacular symptom of financial globalisation is the recent spat of currency and financial crises: Thailand, Korea, Indonesia, Malaysia and the Philippines in 1997-8, Mexico in 1994, and the European exchange rate crises in 1992-93. The Asian crises are especially associated with financial market globalisation. Sachs and Radelet (1998) point out: “The single most dramatic element—perhaps the defining element—of the crisis has been the rapid reversal of private capital flows into Asia.”

While these financial crises sound modern and high-tech, there is very little new about them. Kindleberger (1996:203) lists no fewer than 22 crises and panics between 1870 and 1914, with the first truly international crisis coming 277 years ago. A proper characterisation of the extent and international nature of financial crises is far beyond the scope of this paper. Yet one needs only to skim a few pages of Kindleberger’s book to understand how thoroughly unoriginal today’s financial crises are. The 19th century crises variously involved banks, government bonds, commodities, private bonds and private equity, inter alia. Some affected Europe and North America, others affected developing nations. Many involved contagion-effects, pulling several nations into the panic. To give one example, the crisis of 1847-48 led to the failure of several hundred banks and companies spread across the United Kingdom, France, the Netherlands, Germany, Italy, the US and India – all within the space of 12 months.

Governmental reaction to such crises also has a long history. For instance, virtually every proposed ‘solution’ to today’s Asian crises has a historical precedent, as Kindleberger points out in his chapters entitled “Letting it Burn Out, and Other Devices”, “The Lender of Last Resort”, and “The International Lender of Last Resort”.

4 Trade, Investment, Migration and Factor Prices

Until the recent Asian financial crises, the rapid growth of international trade and investment was the most cited and feared symptom of globalisation. Indeed, in many circles especially in the United States—there is a firm belief that the current level of openness is unprecedented and that this takes policymakers into uncharted waters. This belief is easy to understand. US trade accounted for less than 5% of its GDP in 1960 but the current figure is more than double that. Growth in the trade-to-GDP ratio for the average OECD nation is more like 50%, but even this figure is impressive.

To informed analysts, the popular conviction that unprecedented globalisation has changed everything is wrong, or at least considerably exaggerated. As Krugman (1995:327) points out “the U.S. economy is not now, and may never be as dependent on exports as Britain was during the reign of Queen Victoria.” Krugman’s historical reference is correct but misses much. In terms of trade flows, the 1st and 2nd waves of globalisation are superficially similar but fundamentally different.

This section compares the two waves in terms of trade, direct investment, migration, and factor price movements.

4.1 Trade

Large-scale international trade was born the 19th century. Between the defeat of Napoleon and WWI European trade multiplied nearly forty-fold, having only doubled in the previous 100 years (Bairoch, 1989). By the end of the 19th century, a complex, but lopsided, system of international trade had taken shape. As Harley describes it:

The United States exported heavily to Europe while importing tropical raw materials, like jute, sugar and coffee, from the less developed economies of the periphery. The Continental European nations, as a group, balanced imports of temperate and tropical foodstuffs and raw materials primarily by exporting manufactured goods to Britain. Britain, in turn, earned surpluses by selling manufactured goods to the periphery, on shipping and financial services, and from large overseas investment. (Harley 1996:xii).

The UK did export manufactured goods to the US and the Continent, but these were dissimilar from the industrial goods it imported from those regions. Roughly speaking, the UK exported ‘old’ industrial goods

(textiles, clothing, iron, ships and railway material) while the US and Continentals focused on ‘new’ industrial goods (chemicals, steel and engineering goods), according to Harley (1996).

The contrast with today’s trade pattern is remarkable. Developing nations are vastly less important in today’s system and the commodity composition of exports across developed nations is much more symmetric. In particular, most of the world’s trade (about two-thirds) takes place among rich nations that have similar factor endowments. Moreover, most of this trade (about three-fourths) is two-way trade in

Table 6: Transport Costs, 1830-1910 .					Table 7: Telephone Capacity & Internet Hosts, 1986-2000.			
<i>% of Production costs</i>	<i>1830</i>	<i>1850</i>	<i>1880</i>	<i>1910</i>	<i>Thousands of voice paths</i>		<i>Thousands</i>	
					<i>Trans Atlantic</i>	<i>Trans pacific</i>	<i>Internet Hosts</i>	
Wheat	79	76	41	27.5	1986	100	41	5.1(a)
Bar Iron	92	71	33	19	1991	504	141.2	617
Manuf’d Iron Goods	27	21	10	6	1996	2’021.6	1’098.6	12’881
Cotton Thread	11	8.5	3.5	2.5	2000*	2’048.3	1’889.1	29’670\ a
Cotton Textile	9.5	8	4.5	2	* Projection of minimum capacities.			
Note: Figures for Hypothetical 800 km Shipment.					Source: Cairncross (1997).			
Source: Bairoch (1989:56-7).								

manufactures. Even when one zooms in to the finest level of commodity disaggregation and even when one focuses on very similar nations, one sees that world trade is dominated by intra-industry trade in similar products.

We turn now to a closer look detailed developments. We start with transport costs and trade barriers, before moving on to aggregate trade-to-GDP ratios, the geographic direction of trade and the commodity composition of trade.

4.1.1 Trade Barriers

Transport Costs in the 1st Wave

Technological innovation and infrastructure investments radically lowered late 19th century transport costs. Cheaper and faster oceanic shipping facilitated trade among coastline settlements such as London, Calcutta and New York. For instance, Harley (1980) estimates that the cost of shipping a bushel of wheat from New York to Liverpool was halved (from \$0.25) between 1830 and 1880, and then halved again between 1880 and 1914. This is only part of the story. According to his estimates for 1880, it cost as much to get wheat from Chicago to New York as it did to get it from New York to Liverpool. He shows that these inland costs also halved in both the 1830-1880 and in the 1880-1914 periods. Since wheat sold in Chicago for about \$1 a bushel throughout the 1870-1914 period, falling transport costs had an enormous impact on world wheat trade. Similar stories can be told for other bulk items such as iron and coal. Trains and ships, of course, make roundtrips, so transport improvements also fostered globalisation by expanding markets for industrial and food-producing centres.

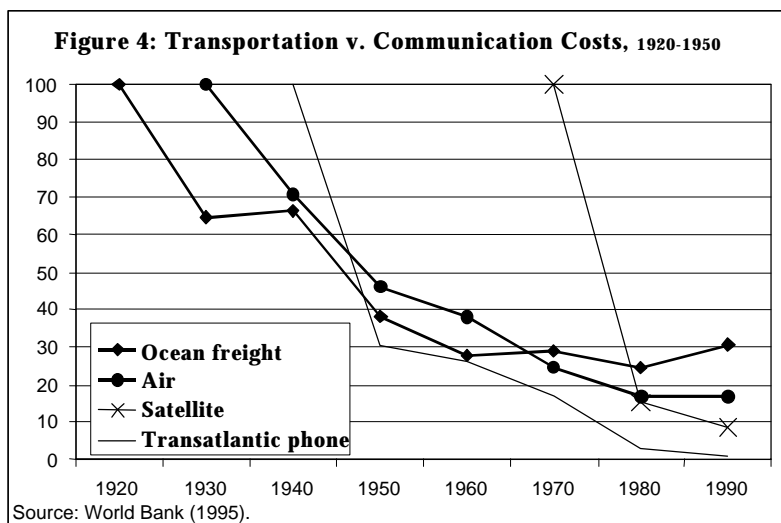
All this was led to quantitative changes for the Atlantic economies, but for nations with massive interiors—those in North American, Latin America, and central Europe – the transport improvements constituted a revolution in itself, opening up new frontiers to settlement. This, in turn, fostered the mass migrations of people and capital in the late 19th century (more on this below).

Table 6, based on Bairoch (1989) illustrates the radical impact of these innovations on trade costs. It also clearly shows how transport costs reductions were systematically more important for bulk trade commodities.

The first transatlantic telegraph cable was laid 1866 and by the turn of the century, the entire world was cabled. This was a radical change, reducing communication times from months to minutes.

Transport and Communications Costs in the 2nd Wave

In the post-war period, oceanic shipping costs continued to decline sharply up to 1960. The cost airfreight also fell dramatically, but costs flattened out in the 1980s as Figure 4 shows. The costs of communications, however, continue to plunge, as the figure shows.



Frances Cairncross further documents the remarkable decline in the cost of trading ideas in her book *The Death of Distance*.⁸ The costs of a 3-minute call from New York to London fell from about \$250 in 1930 to a few pennies today. Even as recently as 1960, the call would have cost something like \$50. The very recent expansion of telephone capacity is equally impressive, as Table 7 shows. The last column in the table also presents figures on the exponential growth of the most recent form of communications, the Internet.

Communications that are this cheap have altered the nature of international trade and investment. Cairncross (1997) is full of antidotes of the following type. Using the internet, an accountancy firm in Southern England (Dyer Partnership) acts as the finance department for a Ukrainian manufacturer of wind turbines. Dyer handles all the financial reporting, include profit and loss statements. In addition to changes in transport and communications cost, the two waves witnessed important changes in trade policy.

Although it is difficult to document, the increased ease, reliability and lower cost of telecommunications has undoubtedly promoted the explosion of foreign direct investment. This is especially true of FDI in the service sector where foreign affiliates are often selling information or expertise.

Tariffs: Then and Now

The 19th century saw both the rise of trade liberalisation and the development of modern

Table 8: Tariffs on Manufactured Goods, 1820, 1875, 1913

(Percentages)	<i>circa</i>		
	1820	1875	1913
Austria-	prohibitio	15-	13-
Belgium /a		9-10	9
Denmark	30	15-	14
France	prohibitio	12-	20-
Germany /b	na	4-6	13
Italy	na	8-10	18-
Portugal	15	20-	na
Russia	prohibitio	15-	84
Spain	prohibitio	15-	34-
Sweden	prohibitio	3-5	20-
Switzerland	10	4-6	8-9
Netherlands /a	7	3-5	4
UK	50	0	0
US	45	40-	44
Argentina	na	na	28
Brazil	na	na	50-
Colombia	na	na	40-
Mexico	na	na	40-
China	na	na	4-5
Iran	na	na	3-4
Siam	na	na	2-3
Turkey	na	na	5-10

Notes: "prohibition" indicates many import prohibitions. (a) Belgium part of Netherlands in 1820; (b) Prussian data for Germany in 1820;

Sources: Bairoch (1989) Tables 3, 5, 9; Bairoch and Kozul-Wright (1996) Tab 2

⁸ The demise of distance has been greatly exaggerated when it comes to commodity trade. The gravity model, which uses distance and partner country GDPs as its main explanatory variables, still does an excellent job of accounting for the geographical pattern of trade. In particular, the distance-trade-volume elasticity is about -0.7 ; See Baldwin (1994 Chapter 3) for further details.

protectionism.⁹ Bairoch (1989) and Harley (1996) distinguish four periods: the rise of British liberalism (1815-1846), the spread of European free trade (1846-1860), the liberal period (1860-1879), and the Continent's return to protection while Britain remained open (1879-1914). Apart from brief flirtations with free trade, non-European advanced nations, especially the US, remained protectionist until after WWII. Colonial nations that were not self-ruling had liberal policies (at least with their 'mother' countries) throughout much of this period (Bairoch 1989).

The period from 1815 and 1846 saw the establishment of Great Britain's economic supremacy and its embrace of free trade; the liberalisation of wheat imports (repeal of the Corn Laws) was the climatic event in 1846. Other European powers also moved towards freer trade during this period. This, however,

essentially entailed a shift from strict mercantilism and fragmented internal markets to modern protectionism. Germany established and freed internal trade in its *Zollverein* but raised external tariffs. Austria-Hungary, France, Russia and others generally lowered internal customs and export taxes, and shifted from prohibitions on manufactured imports to very high tariffs.

Free trade policies diffused slowly and sporadically to the Continental economies from 1846 to 1860. After 1860, liberal trade policies in

Europe spread rapidly via a system of bilateral treaties (the so-called Cobden-Chevalier treaties). Since these generally included most favoured nations (MFN) clauses, they established multilateral free trade in Europe. These liberal policies, which lasted up to the end of the 1870s, were distinctly amplified by 'natural' liberalisation, i.e. sharply lower transport cost (as discussed above).

Protectionism returned to Continental Europe after 1878 (more on this in Section 5.2). For farmers, the renewed protection just offset the sharp drop in wheat prices due to transport costs reductions (Bairoch 1989:57). For industrial goods, by contrast, the new tariffs sharply reduced or prevented increases in

Table 9: Post-Uruguay Round Protection Levels.

<i>(Tariff equivalents by commodity,%)</i>	<i>Med SubS S.</i>						
	<i>Nafta</i>	<i>EU</i>	<i>Jpn</i>	<i>&ME</i>	<i>Africa</i>	<i>Amer</i>	<i>Asia</i>
Grains	2	71	184	18	20	2	17
Other ag.	38	52	39	6	6	3	20
Processed food	5	13	73	6	5	2	17
Forestry	1	0	0	17	10	7	5
Fishery	1	5	3	42	8	19	11
Mining	1	0	0	17	10	4	4
Textiles	8	7	5	35	16	15	29
Clothing	19	10	9	39	20	23	21
Lumber, pulp, paper	1	0	1	24	12	9	9
Processed petro. Gds	1	1	1	17	5	12	12
Chemicals, plastics,	7	12	2	20	8	13	12
Primary steel	7	3	1	17	12	11	9
Nonferrous metals	3	1	1	24	14	7	9
Metal products	6	2	1	30	13	16	19
Transport equipment	3	5	0	25	10	19	23
Other machinery	13	7	0	24	6	19	11
Other manufactures	5	3	6	28	14	18	17

Source: Global Trade Analysis Project dataset, version 3, 1996.

Table 10: US Tariffs, 1823-1988.

	1823	1829	1842	1857	1867	1891	1908	1914	1923	1931
% total imports	43.4	50.8	25.3	16.3	44.3	22.9	20.1	14.9	14.1	19
% dutiable imports	45.8	54.4	31.9	20.6	46.7	48.9	41.3	37.6	37.7	55.3

Source: Bairoch (1993) Tab. 3.1.

industrial imports, especially from Great Britain.

Table 8 shows puts some numbers to these trends, showing that although trade barriers of the late 19th century were lower than those of the early part of the century, the 1875-1914 period was marked by high or rising barriers everywhere except the UK and the Benelux countries.

The more recent globalisation wave is also marked by tariff liberalisation. Since the signing of the GATT in the late 1940s, all developed nations have progressively liberalised tariffs and other border measures on industrial goods. Table 9 shows that except for clothing and a few sectors where special protection is important (mainly anti-dumping duties on chemicals and steel), the rich nations are quite

⁹ This section draws heavily on the masterful account of global trade policy in Bairoch (1989).

open; about as open as the most liberal European nations were in the 1870s. The table also shows that the world's remaining protection (at least the easily quantified forms of protection) is limited to two basic two categories, industrial goods in developing nations and agricultural goods in developed nations.

Table 10 provide a long-term view of the US's tariff policies. These plainly show how the United States' free trade stance is a very recent event by historical standards (apart from short-lived bursts of liberalism in the 1850s and the 1920s. The figures also clearly show the inter-war rise in protection in the US.

4.1.2 Trade Flows

Trade-to-GDP Ratios

Table 11 shows the ratios of total trade (imports plus exports) to GDP for 11 developed nations in 1870, 1910, 1950 and 1995 (actual dates for the first three columns vary slightly among nations according to data availability). The first two columns show that most nations experienced increased openness during the first wave of globalisation. The increases for Japan, Sweden and Denmark were quite spectacular, while those of other nations were more mild. The UK and Germany, for instance, had already done most of their opening up by 1860. Shares for the US, Australia and Canada actually fell during this period. A part of this stems from relative price changes between their exports (mainly primary goods, especially wheat) and domestic production but a large part is due to the fact that they never substantially liberalised their tariffs. These nations were profoundly changed by the first wave of globalisation but for them, international flows of people, capital and technology were far more important than trade (more on this below).

All countries apart from Canada saw their openness ratios drop significantly between 1910 and 1950. Moreover, all of them, except Japan, have regained or surpassed their earlier levels of trade. Thus at this level of aggregation there is very little

new about the 2nd wave of globalisation at a superficial level. However, as Lindbeck (1973) noted, the denominators in the 19th century consisted primarily of private economic activity. In modern times, however, governments account for between 30% and 50% of GDP, so the fraction of private economic activity exposed to international competition is now much greater than it was in the Victorian-era globalisation wave.

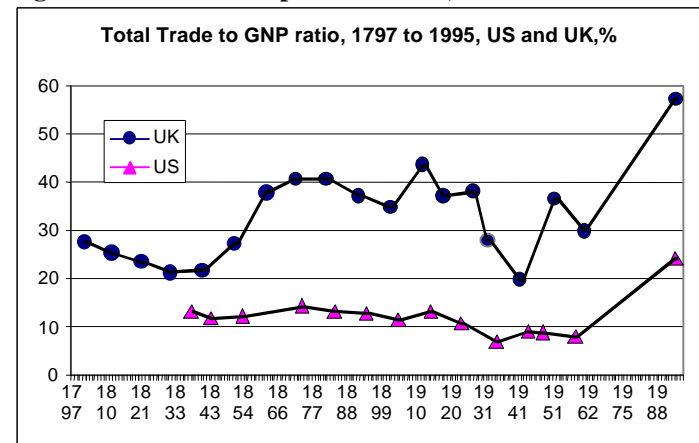
Figure 5 presents a more detailed time series for the US and the UK. The figure shows that the US is still no more open than the UK was in 1850. It also shows that the UK's burst of openness preceded the first wave of globalisation and that the US bucked the openness trend, becoming progressively more closed during the 1870-1910 period. Since WWII, however, the US has opened up remarkably. This may help explain why the 'globalisation is unprecedented' school-of-thought is so strong in the US.

Table 11: Total Trade to GDP, 1870, 1910, 1950 and 1995, Various Developed Nations. (%)

	<i>c.1870</i>	<i>c.1910</i>	<i>c.1950</i>	1995
UK	41	44	30	57
France	33	35	23	43
Germany	37	38	27	46
Italy	21	28	21	49
Denmark	52	69	53	64
Norway	56	69	77	71
Sweden	28	40	30	77
USA	14	11	9	24
Canada	30	30	37	71
Australia	40	39	37	40
Japan	10	30	19	17

Notes: Exact dates vary, see Kuznets (1967).

Figure 5: US and UK Openness Ratios, 1797-Present.



Source: Bairoch (1989).

Direction of Trade

As Table 12 shows, the direction of trade for Continental countries has been remarkable stable for

(% of total)		Europe	North America	South America	Asia	Africa	Other
Exports							
1860	UK	46.7	25.5	11.5	12.8	2.5	1.0
	Europe	67.5	9.1	7.7	10.0	3.2	2.5
1910	UK	35.2	11.6	12.6	24.5	7.4	8.6
	Europe	67.9	7.6	4.2	9.8	4.8	2.4
1996	UK	59.7	13.3	1.8	11.2	2.6	11.4
	Europe	76.2	7.2	2.1	10.7	2.5	1.3
Imports							
1860	UK	31.0	26.7	10.1	23.2	4.5	4.5
	Europe	61.0	14.3	7.8	12.1	3.2	1.7
1910	UK	45.1	23.8	9.1	10.3	4.8	6.9
	Europe	60.0	14.0	8.2	10.0	4.5	3.4
1996	UK	57.2	14.0	1.9	16.9	1.9	8.1
	Europe	70.7	8.5	2.9	10.5	2.7	4.7

Notes: Europe is EU in 1996.
Sources: Pre war figures, Bairoch (1974) Tables 4 and 9. 1996 figures, IMF (1997).

almost 150 years. While the deep integration of Western Europe between 1910 and 1996 has increased the regionalisation of Europe's trade, the impact is not especially large. Europe's exports to Europe rose from about two-thirds in 1860 to about three-fourths in 1996. European exports to Asia have varied little from the 10% mark and its exports to North America were unchanged between 1910 and 1996.¹⁰ There was more regionalisation on the import side between 1910 and now, but much of this has to do with the increased importance of manufactures in Europe's import basket (more on this below). d

The basic message of invariant trade shares does not carry through for the UK. As the 1st globalisation wave progressed, the UK's exports were increasingly oriented towards her colonies with India being particularly important. The share of British exports heading to the Continent fell from about half to about a third. This is partly due to rising Continental tariff barriers but also due to the rapid industrialisation of West Europe. The increased importance of Asian and African markets is especially noticeable with the former doubling to 25% and the latter increasing by half.

Composition of Trade

Manufactured goods dominate world trade today. In 1996, for instance, manufactures accounts for 73% of world trade (WTO, 1997). While low fuel and food prices boosted manufactures share significantly in recent years, the importance of manufactures has grown steadily since 1950. Importantly, the dominance of manufactures is as true for imports as it is for exports – at least in the developed nations who account for two-thirds of world trade. For instance, according to WTO (1997) manufactures make up 77.6% of European exports and 72.7% of its imports. For North America, the figures are 73.8% for exports and

Table 13: Manufactures Share of Exports and Imports, 1910 and 1993, Various Developed Nations

	<i>Circa 1910</i>		<i>1993</i>	
	Exports	Imports	Exports	Imports
UK	75.4	24.5	97	77.2
France	59.2	25.3	78	74.6
Germany	74.5	24.4	90	73.6
Italy	38.3	38.0	89	62.9
Denmark	9.1	28.1	66	n.a.
Sweden	33.6	56.0	85	n.a.
USA	47.5	40.7	82	77.1
Canada	19.9	62.5	66	81.9
Japan	80.8	38.3	97	46.3

Sources: Kuznets (1967) Table 9 for 1910 data; World Bank (1997) and WTO (1994) for 1993 data.

¹⁰ See Anderson and Norheim (1993) for a long-term study of the regionalisation of world trade.

78.2% for imports. Japan, whose corresponding figures are 94.9% and 54.3%, is the exception but Japan accounts for only 10% of world trade.

In the late 19th century, manufactures were also important in the exports of developed nations but much less so in their imports. Table 13 presents some figures illustrating this. For the most industrialised nations, viz. UK, Germany and France, manufactures were two or three times more important in exports than imports. For the US and Italy the figures are roughly balanced but at quite a low level by modern standards. At the time, the economies of Denmark, Sweden and Canada were still heavily reliant on primary goods and this is reflected in the imbalance of manufactures in their imports and exports.

4.1.3 Trade with Emerging Economies

Some trade scholars, notably Ed Leamer, view the post-WWII globalisation as having two distinct phases. During the first phase, roughly 1950 to 1979, rapid trade expansion consisted primarily of North-North trade in manufactured goods. The developing nations played only a minor role (in terms of volume) and much of this was dominated by the exports of primary goods. During the second phase, however, trade liberalisation and rapid industrialisation changed the nature of the Third World's participation in the world trading system. In short, they became exporters of industrial goods, especially labour-intensive industrial goods. This matters, according to Leamer and Wood, since these goods compete more directly with goods produced in the developed economies. The link between this and labour market developments is considered at length below. Here we focus on the trade facts.

Imports from the emerging economies (the subset of developing nations that grew rapidly since 1970 or 1980) are still a small share of OECD GDP, about 2% for the US and about 1.5% for the OECD nations as a whole (OECD 1997). This, however, is up sharply from the ¼% it was in 1970. OECD exports to these nations have risen by approximately the same amount, but the rapid growth in imports from emerging economies has been concentrated in manufactured goods, especially labour-intensive manufactured goods. For instance, as share of total manufactured imports, the emerging economies account for 22% for US manufactured imports, up from about 10% in 1970. (The corresponding figures for the OECD as a whole are 13% and 6% respectively.)

Table 14 shows the compositional trends for developing and developed nations as a whole. Northern exports have remained primarily dominated by manufactured goods and this is as true for their exports to developing nations as it is for their exports to developed nations. The composition of the developing countries'

exports, however, has shifted rapidly from primary to secondary sector goods. While the drop in oil prices (the figures are based on current price data) exaggerates the shift, there has clearly been a significant shift in the Third World's export mix. This is especially marked after 1980; more recent data confirm this trend.

4.2 Multinationals and Foreign Direct Investment

Multinational corporations (MNCs) and foreign direct investment (FDI) are an essential component of late 20th century globalisation—both in terms of volume and impact. Indeed, on the microeconomic side of globalisation, FDI flows are the only thing that has changed sharply in the last twenty years. As Figure 6 shows, FDI flows rocketed in the mid-1980s. UNCTAD (1997:17), for instance, estimates that the global sales of MNCs' foreign affiliates now exceed the world trade volume by 30%. The associated footlooseness of production is also an essential component in the vague, but profound, fear of international integration that Bob Lawrence has dubbed 'globophobia'.

Multinationals, such as the East India Company, and FDI were also an essential part of the first wave of globalisation. Indeed, in many ways FDI was more important in the first wave than in the second. Dunning

Table 14: Composition of North-South Trade, 1955 to 1989.

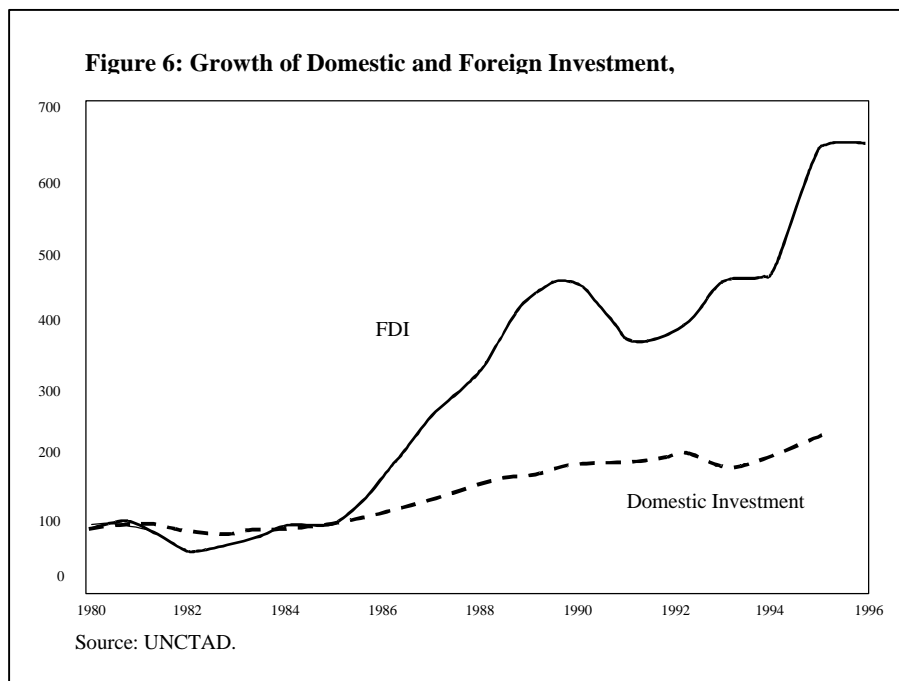
North's Exports to South:

	<i>1955</i>	<i>1970</i>	<i>1980</i>	<i>1989</i>
Manufactures (% of total)	73	78	79	79

South's Exports to North:

Fuels (% of total)	20	33	66	25
Other Primary (% of total)	74	51	18	21
Manufactures (% of total)	5	16	15	53

Source: Wood (1994 Table 1.1) which is based on UNCTAD data and definitions.



(1983) writes: “There is also little doubt that, from the viewpoint of some home and host countries, FDI, both as a channel for the transfer of resources between countries, and as a means of controlling the use of these and complementary local inputs, played a no less important role [in the 1870-1914 period] than it has done since the mid-1950s.” He guess-estimates that 35% of net capital outflows in the 1st wave consisted of FDI. The corresponding figure of the 2nd wave is harder to calculate (since the size and source of capital

Table 15: Geographical Distribution of FDI, 1914-1996, Various Home and Host Nations.

% of World Stock	1914		1960		1996	
	% of origin	% of host	% of origin	% of host	% of origin	% of host
USA	18.5	10.3	49.2	13.9	25.0	19.9
Canada	1.0	5.7	3.8	23.7	3.5	4.0
UK	45.5	1.4	16.2	9.2	11.2	10.7
Germany	10.5	6.4	1.2	6.4	9.1	5.3
France	12.2		6.1		6.5	5.2
Belgium	8.7	6.4	1.9	6.4	2.3	3.1
Italy			1.6		3.7	2.3
Netherlands	8.7	6.4	10.5	6.4	5.8	3.7
Sweden			0.6		2.4	1.3
Switzerland	8.7	6.4	3.0	6.4	5.1	1.5
Russia			2.1		7.1	na
Developing Nations	nil	62.8	1.0	32.3	8.9	28.4

Notes: Boxes indicate data is aggregate for the group.
Sources: Dunning (1983) Tables 5.1, 5.2 for 1914 and 1960 data; UNCTAD (1997) for 1996 data.

outflows bounced around a great deal). Nevertheless, while one might find figures like 35% for particular developing nations, any reasonable estimate of the global number would probably be less than a tenth of the 35% number.¹¹The direction and source of FDI has also shifted significantly between the two waves.

¹¹ To reach 35% figure, a third of the average nation’s current account deficit would have to be financed by

Roughly speaking, 1870-1914 period saw FDI flowing mainly from developed countries to developing countries. In the recent wave, most FDI also originated in developed countries but has also flowed mainly to developed nations. Table 15 provides some figures on this. For instance in 1996, just four nations the US, UK, Germany, France are the source of half of the world FDI stock. Strikingly, four-tenths of the world FDI stock is also located in these same four nations. In a more complete study, Hummels and Stern (1994) show that rich nations account for 97% of direct investment outflows and 75% of the inflows.

The composition of FDI has also changed significantly. In 1914, 55% of the FDI stock was in the primary product sector, 20% in railroads, 15% in manufacturing, and only 10% in distribution, utilities, banking, etc. (Dunning 1983:89). In the late 1990s, the figures look quite different. In the EU, 63% of FDI went to services, 31% to manufactures and only 6% to the primary sector (European Commission, 1996:90). UNCTAD (1997:35) shows that only about 20% of the assets of the top 100 MNCs are in the petroleum and mining sectors.

Much of the service-related FDI is best thought of as facilitating trade in services since many types of services require a local presence. Banks are a classic example. The part of FDI that goes to the manufacturing sector, especially FDI that flows to low-wage nations, is part of another important aspect of the new globalisation, what Krugman (1995) calls the slicing up the value chain. This phenomenon was well documented in the aptly titled *The Global Factory*, a 1985 book by Kenneth Flamm and Joseph Grunwald. Because of this FDI, an enormous amount of the trade in goods such as transport equipment consists of shuttling auto parts from a company's factories in one nation to its factories in another. Krugman (1985) provides the contrasting example of a 1930s US auto plant, which "was, in effect, a facility that ingested coke and iron ore at one end and extruded passenger cars from the other."

Another striking difference is that now the global FDI pattern is quite similarity to the world trade pattern. In particular, just as world trade is dominated by trade in similar goods among similar nations, FDI among rich nations is now frequently involves two-way FDI in the same industry—what has been called intra-industry FDI (Rugman 1985; Markusen 1995). Moreover, the industries in which there is much intra-industry trade among similar nations are frequently the same industries in which there is a great deal of intra-industry FDI among similar nations, according to Rugman (1985). Anecdotal evidence can be found in sectors such as transport equipment, chemicals, pharmaceutical, and processed foods.

4.3 Migration

Migration is the most obvious difference between the two waves of globalisation. Massive labour migration, often teamed with massive capital inflows, was a hallmark of the 1880-1914 period. A stylised version of these flows in the late 19th century looked as follows. The dramatic drop in transport costs – especially the construction of railroads and canals—opened frontier areas to staple production. This then generated a 20-year growth boom driven by migration, capital inflows and the export of primary goods. This pattern is sometimes called the 'Kuznets cycle'.

Table 16 shows how important migration flows were for the sending and receiving nations. The numbers are staggering by modern standards. Emigration flows equal to two to five percent of the population were entirely normal during this period.

In the 1990s, the US is the only major rich nation with high immigration rates. According to Cline (1997:85) the legal and illegal flows add to

Table 16: Decadal Migration, % Initial Population, 1880-1910, Various Nations.

<i>% of Initial population</i>	<i>1880s</i>	<i>1890s</i>	<i>1900s</i>
Senders:			
UK	-3.05	-5.20	-2.04
Italy	-1.65	-3.37	-4.87
Spain	-1.51	-6.01	-5.18
Sweden	-2.90	-7.20	-3.51
Portugal	-3.52	-4.16	-5.94
Receivers:			
US	5.69	8.94	4.02
Canada	2.27	4.89	3.71
Australia	11.28	16.59	0.77
Argentina	4.50	25.60	9.5
Brazil	1.98	3.82	8.44
N. Zealand	53.52	4.08	4.15

Notes: UK includes Ireland; dates vary slightly according data available.

Source: Green & Urquhart (1976) Table 2.

a net FDI inflow. Today, most FDI is among rich nations and fairly balanced bilaterally.

something like one million people a year, which implies a decadal migration rate of about 4% of the initial population.

4.4 Factor Prices and Globalisation

Globalisation has produced falling real wages in the US and high unemployment in Europe according to populists such as Buchanan (1998) and Goldsmith (1994) as well as from some scholars such as Leamer (1996, 1998) and Wood (1994). They point in particular to trade with low-wage nations, migration and the internationalisation of production. While these writers are at odds with the mainstream academic view (as we shall see below), they are influential. In Europe, James Goldsmith calls trade ‘The Trap’, and both the far right and far left have made headway by appealing to the fears of unskilled workers. In the US, fear of imports from low-wage nations was important in Congress’s refusal to grant the Clinton administration trade negotiating authority in the form of ‘Fast Track’. Moreover, we have seen calls for protection as a means of redressing labour market woes in virtually all industrialised nations. Protectionist appeals have been heard even from some academics such as Rodrik (1996, 1997).

The first wave of globalisation was also associated with important factor price changes, and according to some, this was responsible for anti-immigration and anti-trade legislation in the 19th century. Before looking at the 19th century facts, we briefly review recent labour market developments and evidence.

4.4.1 Factor Prices and Post-WWII Globalisation

From the end of WWII until the mid- to late 1970s, the rapid integration of industrialised nations was associated with a narrowing or stable income distribution within each OECD nation. In sharp contrast, the past two decades have been nothing less than a disaster for unskilled workers in the world’s rich nations. In all OECD nations, unemployment rates are several times higher for unskilled workers, and in some nations – notably the US and UK – the earnings of these workers have fallen sharply relative to earnings of skilled workers. In the US, for one, the widening wage gap has been a zero sum game between skilled and unskilled workers since labour’s total share of GDP has not budged. Consider some facts.

Some Labour Market and Income Distribution Facts

The distribution of US Family income has become much more unequal since 1980, as Table 17 (taken from Bill Cline’s excellent 1997 book *Trade and Income Distribution*) shows. The US family income distribution moved little between 1970 and 1980, but became substantially more uneven from 1980 to 1992. The share of GDP received by the bottom 20% of families fell by about a sixth while the GDP share going to the highest 5% of the population rose by a sixth. The ratio of the highest to lowest incomes rose from 5.3 in 1980 to almost 10 in 1992. These sorts of figures certainly hide progress that has been made by some individuals and so they overstate the situation facing individual families. The point is that individual families can and have been working their way up through the income ladder even as more poor families are added to the lower rung. Nevertheless, the numbers are startling.

Additionally, the US wage-distribution widened during these years. As Cline (1997) documents, the ratio of the 90th to the 10th percentile wages for full time workers rose from less than 4 to

Table 17: Distribution of US Family Income, 1970, 1980 and 1992

Income Distribution Quantiles	Percentage of National Income received by each quantile			Top Income Level in Quantiles (thousands of 1992 dollars)		
	1970	1980	1992	1970	1980	1992
	0-20	5	5	4	na	18
20-40	12	12	11	na	30	30
40-60	18	18	17	na	42	44
60-80	24	24	24	na	59	64
80-100	41	42	45	na	na	na
NB:						
80-95	25	26	27	na	92	107
95-100	16	15	18	na	na	na

Source: Cline (1997 Table 1.1)

over 5 since 1970. Real wages for workers with less than High School diplomas fell by almost a quarter from 1973 to 1993. While overall US unemployment is low, for low-skilled groups the rate is at European levels, according to OECD (1997). In contrast to the US experience, the level of real wages in Europe rose (Cline 1997), but so did European unemployment rates, especially among low skilled according to OECD

(1997).

Plainly, the labour-market impact has been global. As Krugman (1997) states, rising wage inequality in the US is the flip side of the coin to Europe's rising unemployment.

Globalisation Suspects and the Evidence

The past two decades have witnessed four important changes that may help account for the labour market impact. First, trade has expanded rapidly, especially the manufactured exports of emerging economies. Second, labour-saving technology (especially factory automation and information technology) has progressed at a mighty pace, even as overall productivity growth slowed. This has reduced demand for low-skill workers in offices and factories while simultaneously boosting demand for workers who can manipulate, manage, finance and develop these sorts of technology. Third, market-oriented economic policies triumphed worldwide, weakening the power of organised labour. Finally, foreign direct investment has grown rapidly and this has fostered 'outsourcing' or 'delocation' of tasks to low wage regions.

There are by now a large number of empirical studies on the trade and wage issues (see OECD 1997 and Cline 1997 for surveys). Virtually all studies find some impact of trade on the labour market in both the US and Europe. The range of findings, however, is wide. Some find that trade accounted for virtually none of the wage gap, while other assigned 100% of the gap to trade. The consensus range is perhaps 10-20%. In the US, migration accounts for another 30-40% of drop in lowest-skilled US workers (Borjas, Freeman and Katz 1997). While these estimates cannot be simply sum up, it seem clear that maybe as much as half of the US wage gap is due to trade and migration. The rest, according to most scholars, is due to technological change.

4.4.2 Factor Prices in the First Globalisation Wave

Jeffrey Williamson (1996) and others have shown that the first globalisation wage was also associated with important factor price changes. In those days, however, the focal-point distinction was between rich landowners and poor workers rather than between skilled and unskilled workers as it is today. In turn of the century Europe, land was scarce and labour was abundant; in the New World, land was abundant and labour was scarce. Not surprisingly, labour (and capital) flowed from the Old World to the so-called settler economies in the New World. In addition to migration, sharp drops in transport costs narrowed commodity price gaps, as discussed above.

Factor rewards responded as expected (Williamson 1996). Old World wages rose relative to land values, often by a factor of 2 or 3. This was especially felt in the most open economies, such as the UK and Nordic nations. In the New World, wage-land value ratios fell by 30-50% between 1870 and 1910. Since landowners tended to be rich to start with, the ratio-shifts decreased European income inequality but probably increased inequality in the New World (Williamson 1996).

Theoretically, three factors can be seen as important determinates of the wage-land value ratios: labour migration and the attendant shift in relative factor supplies within nations, commodity price changes (via Stolper-Samuelson effects), and biased technological progress. O'Rourke, Taylor and Williamson (1996) estimate that changing labour-labour ratios and capital-deepening (due chiefly to migration and capital mobility) accounted for a quarter the changes in the New World's wage-land ratio, but for none in the Old World. Commodity price convergence was responsible for 30% of the New World's drop and about a quarter of the Old World's rise. Due to price pressures, technology tended to be labour saving in the New World and labour using in the Old. These changes accounted for about 40% of the fall in the New World ratio and about 50% of the rise in the Old World ratio.

Williamson (1996) also looks at the ratio of unskilled workers to total income per capita in an attempt to identify changes in the incomes of well-to-do individuals (capital and landowners as well as skilled workers) relative to poorer citizens (unskilled workers). He found that this proxy for domestic income inequality rose dramatically for the settler economies (Australia, Canada and US), but that it fell for labour-the abundant economies in Europe (especially for pre-industrial nations such as Denmark, Italy, Norway and Sweden).

These changes in relative factor prices and incomes had an important impact on policy, according to Williamson (1996). In the US, the rise in income inequality contributed to pressures for anti-immigration legislation in the late 19th and early 20th centuries. It also fostered the anti-trade sentiments in Europe in the form of the Continent's post-1880s retreat from liberalism.

5 Economic Beliefs, Institutions and the Policymaking Environment

Keynes tells us that ideas matter more than we think, or at least used to think before he enlightened us. A full comparison of the two globalisation waves therefore requires discussion of ideas. This is especially true when attempting to distil lessons from the actions made by last century's policymakers. This section first considers differences in the macroeconomic policy environment and then turns to differences in the trade policy environment.

5.1 Macroeconomics and Finance

For late 20th century policymakers, globalisation's most startling impact concerns exchange rate management. Increasingly, officials have had to choose between floating their exchange rate (with all its attendant instability) and joining a big monetary union (with its loss of sovereignty). The adjustable peg, it seems, is dying or dead. 19th-century policymakers never faced such a stark choice. The gold standard, which was essentially an adjustable and unilaterally chosen exchange rate peg, worked quite well.¹² Our goal here is to understand how the intellectual and political climate of the late 19th century permitted this. To get there, however, requires a detour into the logic of the adjustable peg's demise.

5.1.1 Why the Adjustable Peg Died

Barry Eichengreen, who pushed the adjustable-peg-is-dead point in his 1994 book, argues that the middle ground between floating exchanges rates and monetary unions has been, or at least may soon be, completely eliminated by the speed and gigantic quantity of money that is available to challenge any fixed exchange rate. Recent events in Asia have surely made him feel more comfortable with his conclusion. Eichengreen's logic is straightforward.

A Holier 'Holy Trinity'

The 'holy trinity' of monetary policy consists of fixed exchange rates, perfect capital mobility and independent monetary policy. Governments would love to have all three, but being holy, it is unobtainable for mere mortals; the result is the well-known tri-lemma of international monetary policy. In reality, capital mobility is not perfect, so a nation with a fixed rate can get a bit of daylight between domestic and foreign interest rates. The degree of independence depends upon some combination of the restrictiveness of capital controls and the size of the country's reserves. As capital controls have eroded, the size of potential foreign exchange flows has come to eclipse all conceivable levels of official intervention.¹³ Consequently, the holy trinity has become more unobtainable. This is the first factor contributing to the adjustable peg's demise.

Self-fulfilling Currency Crises

The second contributing factor is the appearance of so-called self-fulfilling speculative attacks. These are best explained with an example.

Estonia's currency board is an adjustable peg with a peg that is very hard (politically) to adjust. Eight Estonia kroons (EEK) to the DM is the rate and Estonia promises never to change it. Estonia's inflation rate, however, is 6 or 7 times that of Germany, its monthly trade deficit is 1.5 billion EEK with an annual GDP of 63 EEK, and its interest rate is double Germany's. Now ask yourself, if no credibility were invested in the 8-to-1 rate, is this the rate Estonia would choose? If the answer is 'no' then a self-fulfilling attack is in the offing. Here are the elements.

First, speculators suspect that Estonia would devalue or float, if it were pushed off its peg. Either way, the kroon would drop, making Soros-sized profits for properly positioned speculators. Second, speculators suspect that the currency board would be abandoned if Estonian interest rates stayed at outrageous levels for long enough. Taken together, this means that boatloads of money can almost surely be made if speculators/investors are willing to pour enough money into an attack on the kroon. In a world where a trillion dollars a day changes hands, how difficult would it be to suck out the money supply of an 8 billion DM economy?

¹² The gold standard was a fixed exchange rate system where the rate could be and was changed. By definition, then, it was an adjustable peg system.

¹³ The daily foreign exchange turnover exceeds the official reserves of all IMF members combined (Eichengreen 1996).

In short, the increased holiness of the monetary holy trinity and self-fulfilling attacks increasingly force nations to choose between managed floats and membership in a big monetary union. The middle ground is rapidly vanishing.

5.1.2 The Gold Standard's Success

The gold standard was an adjustable-peg regime that worked well despite a high degree of capital mobility. The system was fully credible and there was little discussion of devaluation by the major players before 1914. In fact, currency risk was considered so minimal that foreign investment was rarely hedged. When currency fluctuations did occur, investors usually reacted in stabilising ways. And in particularly difficult crises, national central banks helped each other, as in the Baring crisis.¹⁴

How did 19th century policymakers manage this? More importantly, could 21st century policymakers do the same? At one level, the answer is simple. The gold standard worked because governments solved the tri-lemma; they were satisfied with only two elements of the holy trinity—fixed exchange rates and perfect capital mobility. Monetary policy was slaved to the exchange rate peg. At a deeper level, the puzzle is why governments at the time were happy to do this.

Eichengreen's Point

Eichengreen (1996) asserts that the gold standard “was a socially constructed institution whose viability hinged on the context in which it operated.” Specifically, the critical element was the protection that governments and central banks had from political pressure—especially pressures to sacrifice exchange-rate stability for domestic economic stabilisation. 19th century central bankers, in short, just did not face a dilemma between internal and external balance. They only cared about the exchange rate.¹⁵

Eichengreen identifies two factors as critical to this protection. First, political participation was limited (universal suffrage, for example, was unheard of) and labour unions and parties were weak. This insulated 19th century central banks from pressures to use monetary policy as an expansionary device; painful adjustments that resulted from wage contraction were always feasible since workers did not have a say.¹⁶ Second, until John Maynard published his treatises in the '20s and '30s, Keynesian economics was ill understood. The impact of monetary policy on employment, output and prices, in particular, was not fully articulated (See Box 1). Thus, ignorance of the real effects of monetary policy certainly had a positive effect on the credibility of the system.

Box 1: The Currency and Banking Schools

Having observed the impact of gold-finds on output and the inflationary consequences of debasing a currency, central bankers and economists clearly had some notion of the links between the money supply, prices, unemployment and aggregate output. Keynesianism, however, is not called a revolution for nothing. Before WWI, macroeconomics was not a distinct field and much of the debate focused on seemingly tangential issues such as whether bank credit in other forms than notes could affect prices. The pre-Keynes debate over the role money had two opposing sides, the Currency School and the Banking School. The Currency School, which included classical economists such as Ricardo, favoured strict monetary policies. They felt that supply created its own demand and that credit expansion based on ongoing business opportunities would only produce inflation. The Banking School, instead, sought credit expansion as a means of promoting economic expansion. (Based on Kindleberger, 1996:47.)

¹⁴ In this 1890 crisis, investors doubted that the Bank of England could both defend sterling and act as lender-of-last-resort for a major merchant bank. The Bank lost gold despite increases in interest rates. Assistance from the Bank of France quelled the crisis.

¹⁵ Traces of Eichengreen's point can also be found in Triffin's judgement that: “The most significant development of the [the post World War I] period was the growing importance of domestic factors as the main determinant of monetary policy.” Flandreau et al (1998) ascribes this point to Polanyi (1944).

¹⁶ See Flandreau, Le Cacheux and Zumer (1998) for a critique of this view and a detailed study of central bank independence during the gold standard.

In addition to the political insulation surrounding central bankers, the UK's dominance of the international trade and finance system was a critical factor supporting the gold standard's success. As the hegemon, Britain and her Treasury had a tremendous stake in keeping the system afloat.

Humpty-Dumpty's Fall

World War I, the rise of democracy, the end of Pax Britannica and Keynesianism all combined to shatter the social and intellectual context that supported the gold standard. The King's men and horses, so to speak, did try to put it back together again – mainly by imposed strict capital controls. They also sought to solve the internal-balance-external balance dilemma with tariffs. While the patchwork did not work, depression-era capital controls persisted in watered-down forms well into the 1980s. These helped make Bretton Woods a success since “limits on capital mobility substituted for limits on democracy as a source of insulation from market pressures” (Eichengreen, 1996, p5).

It is interesting to note that during the 1980s and 1990s, independence became a ‘must’ among central banks. One can see this, and devices such as currency boards, as a 20th century attempt to reconstruct the political insulation which 19th-century bankers enjoyed. For developing countries, the IMF may also have played this role. As some East Asian policy-makers have realised recently, it may serve their interests to have the hard choices made by a body that is insulated from local political and social pressures.

As with macroeconomics, 19th century intellectual attitudes towards trade and trade policy were quite different from those of today. We turn now to these differences.

5.2 Trade Policy

As far as trade is concerned, the first globalisation wave ended badly, with the end coming first as a whimper and then as a bang. That is, after the trade disruptions of WWI, protectionism gradually gained currency around the world, climaxing in the infamous Hawley-Smoot tariffs and corresponding retaliations.

This might be taken as suggesting that globalisation sows the seeds of its own destruction and indeed some such as Greider (1996) have claimed as much. As we shall see, however, important differences between the intellectual/policymaking environments during the two globalisation waves makes a repeat collapse unlikely. Our task here is to trace through the relevant developments in the intellectual and policymaking environments.

5.2.1 Evolution of the Intellectual Climate

The Industrial Revolution and the accompanying trade expansion emerged from an intellectual climate, called classic mercantilism, which was profoundly hostile towards imports. This belief, and the fact that tariffs and tolls were one of the few sources of public funds, meant that both internal and external trade were heavily regulated, heavily taxed or outright prohibited. Using colonies as shielded market for mother-country exports was a main ingredient in the mercantilist recipe.

In the late 1700s and early 1800s, this staunchly anti-import attitude began to change. Adam Smith, David Ricardo and others established a solid intellectual case for unilateral free trade and all the greatest economic thinkers of first globalisation came to endorse free trade. The supremacy of the free trade doctrine, however, did not hinder the development of modern protectionism, namely protectionism designed to promote development rather than simply achieve an overall trade surplus. The result was a very strong line of reasoning supporting temporary protection of manufacturing as a means of promoting the spread of England's industrialisation to the Continent and the settler economies (US, Australia, Canada, etc.). Alexander Hamilton, Friedrich List and John Stuart Mill, among others, endorsed this infant-industry protection argument. Box 2, based largely on Irwin (1996), provide a more detailed intellectual history of these developments.

Box 2: Strict Mercantilism, Laissez-Faire and Modern Protectionism

Under strict mercantilism, which dominated thinking on trade policy in the 17th and 18th centuries, imports were consider ‘bad’ and exports were ‘good’ for the simple reason that precious metals were crucial to a nation's wealth and power. Nations without access to gold

or silver mines had to obtain a balance of trade surplus in order to assure a steady inflow of gold and silver. In 1664, Mun explained: “The ordinary means therefore to increase our wealth and treasure is by foreign trade, wherein we must ever observe this rule; to sell more to strangers yearly than we consume of theirs in value” (cited in Irwin 1996:35). In short, strict mercantilism viewed trade as a means of dividing a fixed pie of world wealth. In a somewhat later form, the argument became subtler; the views being that not all imports were bad since some, such as cotton and other tropical products, were essential and unavailable at home. This subtler form of mercantilism stated that the importation of manufactures and food was ‘bad’, while exports, especially manufactured exports, were ‘good’.

Strict mercantilist beliefs came to be challenged by the writings of a group of French philosophers, the Physiocrats, who proclaimed a harmony of private actions with public welfare (in the spirit of what Smith later called the invisible hand). Their support for laissez-faire and free trade policies was important and influential, yet it took the genius of Adam Smith to provide the economic underpinnings of the free trade doctrine.

Adam Smith’s Wealth of Nations argued that free trade maximised national wealth since it allowed a more efficient division of labour. “If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry...(Smith 1776 cited in Irwin 1996:79). Smith’s treatise was the leading work on economics at the end of the 18th century and soon “all founding fathers of modern economics adopted a liberal position on international trade” according to Bairoch (1993:17). The notion of comparative costs (advantage) came to be more fully fleshed out in the first two decades of the 19th century by scholars such as Robert Torrens, David Ricardo and James Mill. The supremacy of the free trade doctrine among eminent economists, however, did not hinder the development of modern protectionism, the infant industry argument in particular.

Awareness of Britain’s industrial development and rising nationalism in the early 19th century nurtured development of an intellectual argument for what we would now call infant-industry protection. Alexander Hamilton was one of the earliest and the most influential proponents of this doctrine. As a colony, US tariffs were held low to help British manufacturers ‘exploit’ the US market. Thus, tariff independence was an important component of US independence. Hamilton’s work argued that the US should have a high tariff on manufactures and this underpinned the US’ protectionist stance for more than a hundred years. Hamilton and other members of the modern protection school, concurred with Smith on the fact that protection would have static costs. Their argument was that temporary protection of industry was necessary to build up a strong economy. The ensuing growth would more than compensate the short-term loss.

On the Continent, the various writings and lectures of Friedrich List in the first half of the 1800s provided intellectual support for the protection of manufacturing, even though his most famous tract The National System of Political Economy did not appear until 1841. The intellectual respectability of infant-industry protection reached its zenith when John Stuart Mill, the pre-eminent mid-19th century economist, endorsed it in his famous 1848 book, Principles of Political Economy. Importantly, these writers typically did not recommend protection for agriculture in any nation, nor did they argue for protection in the leading industrial nation of the time, namely Britain. Furthermore, List argued that the tropical countries should embrace unilateral free trade since he thought that industrialisation was only possible in temperate climates (Bairoch 1993:18).

The writings of John Stuart Mill and Robert Torrens (who developed something akin to the optimal-tariff argument) deflowered the purity of the free trade doctrine. However, the notion that protection might improve national welfare in special cases did not provide protectionists with firm intellectual support. Several lines of argumentation buttressed the free trade doctrine (Irwin 1996:228), the strongest of which was the government-failure argument. As Edgeworth wrote in 1894, “protection might procure economic advantage in certain cases, if there was a government wise enough to discriminate those cases, and strong enough to confine itself to them....”

5.2.2 Evolution of the Policymaking Climate

As is often the case, actual policy and the beliefs of policymakers lagged the intellectual developments by a few decades. We turn now to the development of policymakers' attitudes and the pressures shaping them.¹⁷

UK's Free Trade Conversion

A glimmer of free trade policy emerged in the late 1700s. Promoted by French Physiocrats and Adam Smith's writings, the UK and France signed a liberal trade treaty in 1786 despite vociferous opposition by the French Parliament. Due to the French Revolution and subsequent wars, the Treaty had little practical effect. Moreover, the English blockade of France and France's retaliation (the so-called Continental System) greatly re-enforced policymakers' protectionist instincts on both sides of the channel.

The first sustained drive towards free trade began in the UK just after the end of the Napoleonic Wars in 1815. Starting from a position of strict agricultural protection and manufacturing tariffs of about 50%, English industry battled for free trade against the landed aristocracy. Industry embraced free trade since they believed it would boost exports by lowering British wages (industrial wages were *de facto* tied to wheat prices) and by allowing foreign nations to earn the gold necessary to pay for British manufactures.

Initially, landed interests held the upper hand, but throughout the early decades of the 1800s, UK manufacturing prowess grew both relative to its international competitors and relative to domestic agriculture. The UK's level of per capita industrialisation, which exceeded that of the rest of Europe by 110% in 1800, exceeded the Continent's average by 250% in 1830. And around 1810, the agrarian share of UK GDP exceeded that of industry by 70%, but by 1840 the roles were switched with industry's share exceeding agriculture's by 60% (Bairoch 1993:21). This shift in economic power eventually allowed the Anti-Corn Law League, formed in 1838, to push through across-the-board free trade in 1846 via the repeal of the Corn Laws.

Continental Imitation and Rejection of Free Trade

While Britain became aware of its industrial lead, Continental Europe was becoming increasingly aware of its backwardness as was seeking a means of catching up. From 1846 until 1860, Britain's continued success and the rapid expansion of trade provided a powerful show-me-the-facts justification of laissez-faire ideas. Starting in 1860, free trade was widely adopted by the large Continental economies via the Cobden Treaties (as discussed above). Rapid and large reductions in transport costs furthered this by lowering 'natural' trade barriers, especially for bulk items such as wheat and iron.

Soon after this liberalisation, Europe lapsed into a two-decade growth slowdown stemming mostly from a reduction in agricultural growth (Bairoch 1993:47). Per capita GDP growth, which had averaged approximately 1% to 1.3% between 1830 and 1870, slipped to 0.1% in the 1870s and 1880s (Bairoch 1993 Table 4.1). The slowdown, together with rising nationalism (the modern German, Belgian and Italian states were formed around this time), led policymakers to abandon the notion that laissez-faire trade policies could promote industrialisation. Across the Continent, coalitions of landed aristocracy (who suffered from falling wheat prices) and local industrialists (who suffered from British competition) pushed through protectionist barriers. Bismarck led the process. After having completed Germany's unification, he reinstated higher tariffs, using arguments provided by List: Bismarck declared that "the surfeiting of Germany with the over-production of other lands ... depresses our prices and checks the development of our industry..." (Cited in Bairoch 1989:60). The trend toward protection, which started with in Germany in 1879, reached a plateau with France's Meline tariff of 1892.

These protectionist laws, however, were not temporary and included agriculture, so they would probably not have been applauded by List, had he lived to see them. As such, this provides an early example of a sophisticated argument for protection being hijacked and misused by special-interest groups.

From Pax Britannica to Britain's Decline

Rising Continental protection, and the high levels of barriers in the settler economies, evoked a predictable response in the UK, namely calls for retaliation. This reached a peak in 1881 with the creation of a Fair Trade League that demanded protection and a retreat to trade with the Empire. Britain, however, was at the height of her hegemony; Queen Victoria ruled with a firm hand, British industrial productivity

¹⁷ This section is based mostly on Bairoch (1989, 1993) and Kindleberger (1989).

was unrivalled (UK industrial exports exceeded her industrial imports by a factor of five), and the sun never set on the Union Jack. Thus despite foreign protection, Britain chose to maintain its liberal policies and this allowed the world trading system to flourish, even as British dominance eroded (Bairoch 1989).

The First World War corresponded to a significant contraction of trade and the erection of wartime trade barriers. It also signalled the end of Pax Britannica and Britain's hegemonic support of the international trade system. The resolution of the war, the Versailles and related treaties in particular, generally ignored the health of the world trade system despite the fact that President Wilson listed global free trade as one of his famous 14 points.

Throughout the teens and twenties, protectionism gained in Europe and elsewhere in a disorganised and non-linear fashion. Exchange rate instability led to rapid changes in trade policy (trade treaties were frequently contracted for only three months) and the widespread introduction of anti-dumping and countervailing duty laws (Kindleberger 1989). Tariff rate drifted upwards despite some liberalisation of extreme wartime measures, as Table 18 shows.

Efforts were made to reverse this trend.¹⁸ For example, the 1927 World Economic Conference agreed a tariff 'truce' and subsequent reductions. The conference delegations, however, were acting in their individual capacities and were unable to get their governments to act (the notion of fast-track authority was not in currency). Consequently, almost no liberalisation occurred. The basic problem was that unlike in the 1880-1914 period Britain was unwilling and unable to unilaterally support the world trading system. "With British hegemony lost and nothing to replace it, international relations lapsed in anarchy" (Kindleberger 1989 p.167). The straw that finally broke the back of the world trading system was the 1930 US tariff hike.

The infamous Hawley-Smoot tariff finds its origin in the protectionist campaign promises made by presidential candidate Herbert Hoover to US farmers in fall 1928. A special congressional session, held in early 1929 to frame the bill, tumbled into an isolationist/protectionist spiral. The scope of tariffs was broadened to include industry, Democrats joined the Republicans and by the end "both Republicans and Democrats were ultimately pushed from the committee room as lobbyist took over the task of setting the rates" (Kindleberger 1989:170).

By 1929, the US was an economic super-power and the US market mattered enormously. The height and unprovoked nature of the US tariffs therefore attracted censure worldwide. Foreign retaliation did not wait for final passage of the bill in June 1930; Italy, France and others reacting forcefully in late 1929 and early 1930. Great Britain finally abandoned free trade, devalued sterling and instituted a system of imperial preferences a couple of years later.

By the end of the decade, the world had broken into disparate world trading systems, according to Kindleberger (1989). Germany, Italy and the Soviet Union maintained systems of bilateral trade arrangements with explicitly autarkic aims and dreams of global domination. The so-called Oslo group of small West European nations maintained regional preferences. Britain, the Dominions and Colonies were linked by the Empire preference system, and the US entertained notions of a Western Hemispheric preference system but largely stood aloof. Japan carved out her own trade system in the form of the Greater East Asia Co-Prosperity Sphere.

The breakdown of the trading system surely hastened the world towards war. It fostered acceptance of the autarkic trade philosophies of fascists in Germany, Italy and Japan. It also was used as justification for

Table 18 Average Tariff Rates on Manufactures 1913 to 1950.

	1913	1925	1931	1950
Austria	18	16	24	18
Belgium	9	15	14	11
Denmark	14	10	n.a.	3
France	20	21	30	18
Germany	13	20	21	26
Italy	18	22	46	25
Netherlands	4	6	n.a.	11
Russia	84	proh.	proh.	proh.
Spain	41	41	63	n.a.
Sweden	20	16	21	9
Switzerland	9	14	19	n.a.
UK	0	5		23
USA	44	37	48	14

Notes: "proh." indicates numerous import.
Source: Bairoch (1989).

¹⁸ Bairoch (1993) claims that the '20s saw steady or falling protection; Kindleberger (1989) rebuts this.

their territorial ambitions, with the Nazi precept of *Lebensraum*, or living space, providing the clearest example.¹⁹

This was the period when regionalism and bilateralism acquired a negative image an image that continues to this day in the minds of many trade-scholars (see, Bhagwati and Krueger 1995). Indeed, the negative experience with bilateralism in the interwar period goes a long way to explaining why multilateralism achieved such an exalted status in the post-WWII trading system.

Post WWII Institutions and Cold War Geo-Politics

By the end of the 1930s, the US and UK had learned their lessons and were attempting to liberalise trade even as WWII broke out. The war interrupted these efforts, but restoration of the world trade system showed up as one of the key objectives of the Bretton Woods institutions. Although the US Congress showed its isolationist streak by refusing to join the International Trade Organisation, it did accept the General Agreement on Tariffs and Trade (GATT). More importantly, the US has come to see the world trading system as an essential public good. That is, the world trade order is viewed as a central pillar of American prosperity, so its defence constitutes a central element of the US's self-defined national interests. Other Western nations adopted a similar attitude but war damage left them with little ability to shape events until the late 1950s.

As the Cold War heated up in the 1950s, support for the new multilateral trade system took on a geo-strategic dimension in the eyes of the US, Japan and West Europe. Expanding world trade was viewed as an important means of fortifying the 'free world.' It was also supposed to draw Third World nations into the capitalist camp, or at least of prevent them from drifting towards the communist side. Moreover, the US economic dominance put it in a unique position. Although the US import market was by far the largest in the world, the US was still an essentially closed economy until the 1970s. Thus, US tariff 'concessions' had enormous implications for her trading partners without fundamentally threatening US industry (with the usual exceptions). This was the period of Pax Americana.

Trade liberalisation in Europe was also dominated by political motives. The formation of the Common Market and the European Coal and Steel Community before it was viewed as an economic means to a political goal, that of making future European wars unthinkable.

International Trade Institutions: WTO and the EU

At the end of the first wave of globalisation, the world trade system had virtually no institutional support and indeed was not really a system in the formal sense of the word. It was supported almost exclusively by the unilateral decisions of Great Britain. Moreover, protectionism had not acquired the ill repute that it has today. 19th century policymakers from around the world (with the exception of the UK and the Low Countries) embraced protectionism as essential to rapid industrialisation. While many contemporary economists denounced this practice, the infant-industry argument received intellectual support from as eminent an economist as John Stuart Mill.

Today, we find ourselves in a very different situation. The world trade system is viewed by almost all nations as an essential public good a system that is worthy of support even for purely nationalistic reasons. With the exception of the extreme left and right, blatant protectionism is detested by policymakers and economists from around the global and from across the political spectrum (even if the same men and women occasionally approve idiosyncratic barriers for their pet special interests).

Given the diminished dominance of the United States, it is especially important to note the strong institutions that bolstering the global trade system. Approximately one-third of world trade is conducted inside the European Union (EU). This trade is entirely free of tariffs and quotas and this status is enshrined in the Union's founding document, the Treaty of Rome, and in each member state's legislation. A supra-national legal framework, inter-national transfers and a strong political will also shore the internal market up. The EU's imports from non-European nations amount to almost another 20% of world trade. These imports are not duty free by law, but EU's tariffs are quite low on average (food imports are an important, but low volume exception). More importantly, the EU's decision-making structures in particular, the need for unanimity would make it difficult for it to raise external protection à la 1930s.

The GATT and WTO govern almost 70% of world trade, including the EU's external trade. A sequence

¹⁹ See the masterful account in Chapter 3 "The World through Hitler's Eyes" in Weinberg (1995).

of multilateral trade talks reduced industrial tariffs on to very low levels, and the GATT's provisions make it difficult for signatories to put these barriers back up. At the same time, WTO/GATT membership has grown from 19 nations in the late 1940s to over 120 nations today, the coverage of GATT has been expanded to include agriculture, services, and clothing. Additionally, the rules and institutions have been greatly strengthened by creation of the WTO.

Importantly, the post-WWII expansion of world trade and investment has created a powerful pro-trade lobby in every advanced industrialised nation, namely exporters and multinationals. More specifically, due to the today's very balanced pattern of trade (most trade consists of two-way manufactures trade between rich nations), the powerful export lobbies in Europe, Japan and the US have a vested interest in maintaining and advancing free trade among the three blocs. This political power, therefore, acts as a very important deterrent to another 1930s-size rise in protection rise among the advanced industrial nations.

6 Summary and the Lessons of History

A paper that covers as broad a topic as ours is difficult to summarise in a few paragraphs. At a detailed level, the differences and similarities between the two globalisation waves are covered above and we do not repeat them here. This final section focuses only on three facets of our main message, i.e., that the two waves are superficially similar but fundamentally different.

First, we would assert that trade in ideas is more important in the second wave. This can be seen in:

- The different nature of capital flows (enormous short-term flows driven by a frenetic pace of information exchange and advances in information technology rather than the long-term flows that marked the first wave).

- The different nature of FDI and MNC activity (intra-industry FDI among similar nations with a focus on manufacturing, services and outsourcing rather than the North-to-South investment in primary product sectors and railroads that were characteristic of the first wave).

- The different nature of trade (voluminous intra-industry trade among similar nations driven by scale economies and product differentiation rather than inter-industry trade driven by factor endowments differences and technology gaps as in the first wave).

- The different nature of income convergence/divergence and industrialisation/de-industrialisation. The second wave witnessed rapid (by historical standards) income convergence among leading nations coupled with their de-industrialisation and extremely rapid industrialisation of some developing nations. The first wave was marked by slow catch-up of now rich nations (to the UK) coupled with the industrialisation of converge-ers and the de-industrialisation of diverge-ers.

- The different speeds at which transportation and communication costs fell. Both dropped sharply in both waves, but the drop in communication costs far outpaced the drop in transport costs in the second wave, especially since 1980). This difference is entwined with the difference just mention, as the Section-2 analytic framework shows.

Second, the initial conditions are very dissimilar and this matters greatly. The legacy of colonialism and the vast income differences that we now see have a profound impact on the policymaking environment, especially in the Third World. On one hand, 19th century trade and de-industrialisation embittered nations, such as India and China, and this still makes it difficult for them to embrace laissez-faire trade and investment policies. On a positive side, however, the wide gap between rich and poor—teamed with more rapid technology transfer—means that those developing nations that do take-off, do so at rates that dwarf those of the 19th century.

Third, the international economic system is entirely different. Demands placed on national policymakers are far greater now than they were at the turn of the century. Electorates routinely expect expensive social welfare programs and low taxes, full-employment and low inflation, and above all, they expect steady income growth. These demands—coupled with the heightened interdependence of nations—face policymakers with challenges that were unknown in during the first wave. The tri-lemma of monetary policy is perhaps the best example of a new challenge. Another is the tendency for trade negotiations to encroach on issues that were previously considered matters of purely national concern.

The international systems also differ in a grander way. Most of the Victorian-era globalisation occurred under Pax Britannica and without any effective international institutions or formal rules. A good part of the second wave also occurred under a hegemon, this time the US, but with an important difference. The

international economic system is now bolstered by a solid set of international institutions and rules (e.g., the WTO/GATT and the IMF) and these are defended by all major nations. Such arrangements help stabilise the system, even as the US slowly shrugs off the mantle of economic leadership.

Finally, the changing beliefs of policymakers have also radically altered the international economic system. The first wave of globalisation ended badly—two global conflagrations resulted in tens of millions of deaths and incalculable material damage. The ultimate cause of this was the misguided belief that national prosperity necessarily entailed international competition for turf and/or exclusive access to markets. In the late 20th century, such notions are dismissed in advanced industrial nations. Unfortunately, these 19th century beliefs are still alive in some nations—China and Russia in particular. It would seem, therefore, that a key challenge in global governance is to draw these nations tightly into the global system of trade and investment.

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