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Item Type	Preprint
Authors	Quiggin, John
Publisher	UNRISD
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Download date	2026-07-08 05:34:40
Link to Item	http://hdl.handle.net/20.500.12424/179622

**INTERPRETING GLOBALIZATION:
NEOLIBERAL AND INTERNATIONALIST VIEWS OF
CHANGING PATTERNS OF THE GLOBAL TRADE AND
FINANCIAL SYSTEM**

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Draft paper prepared under the UNRISD project Improving Research and
Knowledge on Social Development in International Organizations*

September 2002

*UNRISD gratefully acknowledges the generous support received from the
Rockefeller Foundation for this paper.

**I thank Nancy Wallace for helpful comments and criticism.



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Introduction

In the late 1990s, heated debate broke out over what had previously been seen as a rather abstruse technical concept, the use of ‘purchasing power parity’ measures, rather than exchange rates, to compare income levels in different countries. The reason for this debate was the publication, in the United Nations Development Program (UNDP) *Human Development Report* of data showing that inequality in global incomes, adjusted using exchange rates, had increased since 1980 (UNDP 1998). Critics such as Castles (1998) pointed out that exactly the opposite conclusion could be obtained using more sophisticated measures based on the concept of purchasing power parity (PPP).

The reason for the intensity of the debate and the interest it generated was linked to the rise to prominence of the concept of ‘globalization’ as a way of describing changes in the international economy that had been evident since the 1970s, most notably the growth in international trade in goods and services relative to world output and the more spectacular expansion in short-term and long-term international capital flows. Critics of globalization argued that it benefited only the rich, and particularly the increasingly conspicuous participants the global financial markets, variously referred to as ‘The Masters of the Universe’ and ‘The Electronic Herd’. The UNDP finding seemed to confirm the views of these critics, and the arguments of Castles and others were consciously directed at refuting these views.

The object of this paper is to describe the changing nature of the global trade and financial system, putting the recent debate about globalization in a broader context and in a longer historical perspective. Changes in the volume and direction of flows of goods, services, capital and income are described. The technical issues surrounding international comparisons of income and consumption are described and the debate over changes in global income inequality is reviewed. A key conclusion is that no unambiguous conclusion can be reached on such broad questions as ‘Has global inequality increased’ and ‘Does globalization increase inequality’. Rather it is necessary to address issues in their context, without relying on the appealing, but specious, simplicity of notions such as globalization.

Background — the nature of globalization

Economic and non-economic sovereignty

Globalization is frequently discussed as a counterpoint to national sovereignty. It is commonly asserted that globalization has eroded national sovereignty or that it has rendered borders obsolete. In particular, it is asserted that, in a globalized world economy, governments have no alternative but to adopt neoliberal economic policies of privatization, deregulation and reductions in public expenditure.

In assessing claims about globalization and sovereignty, it is useful to begin by observing that sovereignty is itself a complex term. Krasner (1999) usefully distinguishes four different concepts of sovereignty. International legal sovereignty is the acceptance of a given state as a member of the international community, and is, in most cases, relatively uncontroversial. Westphalian sovereignty is based on the

principle that one sovereign state should not interfere in the domestic arrangements of another. Interdependence sovereignty is the capacity and willingness to control flows of people, goods and capital into and out of a country. Domestic sovereignty is the capacity of a state to choose and implement policies within its territory.

During the 1980s and early 1990s, the emerging literature on globalization focused primarily on the apparent erosion of interdependence sovereignty and Westphalian sovereignty. Much of this literature was primarily concerned with criticism of 'realist' models of international politics in which the Westphalian notion of the state as a unitary actor are taken as axiomatic (Camilleri and Falk 1992).

During the 1990s, a neoliberal account of globalization came to the fore. The starting point of the neoliberal account of globalization is the observation that states have abandoned or lost much of the interdependence sovereignty they possessed for most of the 20th century. It is then argued that this loss of interdependence sovereignty entails a loss of domestic economic sovereignty, so that states are constrained by the pressures of international capital markets to follow the neoliberal policy agenda of deregulation, privatization and small government, regardless of the wishes of their domestic electorates (Ohmae 1990, Friedman 1999). A similar view is implicit, though not always clearly argued, in postmodernist and 'Third Way' accounts of globalization (Giddens 1999). In addition, left-wing writers such as Panitch (1994) and Strange (1996), while deploring convergence on a neoliberal policy agenda, broadly accept the claim that such convergence is the result of technologically-driven developments in the world economy.

Historical developments since the 19th century

The world economy in the period before 1914 was one of untrammelled global capitalism. As early as the mid-19th century, Marx and Engels (1976, first published 1848) observed the rise of a global economy dominated by Europe.

By 1900, the main rail networks in use today had been put in place, and the combination of steel hulls and steam had produced cargo ships capable of equalling or exceeding the speeds at which sea freight usually travels today. As far as the transport of goods is concerned, subsequent advances have been incremental. Moreover, with the laying of the trans-Atlantic telegraph line in 1866, communications between the major international financial centres became instantaneous.

As a result of these linkages, the reliance of European colonies and of the newly independent nations of Latin America on overseas investment was greater in 1914 than that of developing countries today (Waltz 2000). Moreover, in the absence of significant restrictions on migration, labour mobility was higher than at any time before or since (Baker, Epstein and Pollin 1998).

These points are illustrated in Table 1. As shown in the table, the importance of international flows declined between 1913 and the middle of the 20th century before returning to levels close to those of the 19th century by the 1990s.

Table 1: Measures of Globalisation

<i>Measure</i>	<i>Pre-1914</i>	<i>Mid-20th century</i>	<i>1990s</i>
FDI ¹	9.0 (1913)	4.4 (1960)	10.1 (1995)
CAD ²	3.8 (1910-14)	1.8 (1950-54)	2.7 (1990-6)
Net migration USA ³	5.4 (1870-1901)	2.7 (1950-60)	2.8 (1980-5)
Merchandise exports ⁴	8.7 (1913)	7.0 (1950)	13.5 (1990)

1. World foreign direct investment stock as % of world output

2. Absolute value of current account deficits/surpluses as % of world output

3. Net immigration to the United States as a proportion of US population

4. As % of world GDP

Sources: Baker, Epstein and Pollin (1998), Dawkins and Kenyon (1999)

The central institution of the global financial system in the 19th century was the gold standard. Under the gold standard, the exchange rate between any two currencies was the ratio of their values in gold. Currencies were freely convertible into gold at fixed rates. The combination of the fixed exchange rates implied by adherence to the gold standard and free movement of capital left individual countries with little or no freedom of movement in monetary policy.

The operation of the gold standard is an example of the ‘impossible trinity’. It is possible to maintain any two of fixed exchange rates, free movement of capital and independent domestic monetary policy, but not all three (Mundell 1963). In this sense, then, the loss or abandonment of interdependence sovereignty entails a corresponding loss of domestic sovereignty. As Mundell (1963) observes, however, the implication is not that governments are powerless but that, under fixed exchange rates, they must rely more on fiscal policy, while, under floating exchange rates an independent monetary policy is possible.

The other notable feature of the 19th century global economy was colonialism or, as it was then usually called, imperialism. By the end of the 19th century, the European powers had colonized, or established effective control over, most of Africa, Asia and Oceania. Typically, the management of colonies was designed to ensure a reliable source of raw material imports for, and a market for the exports of, manufactured goods from the imperial power. In colonial areas where a subsistence economy predominated, cash taxes were imposed to force workers into the money economy, to produce plantation crops and other export commodities.

The importance of imperial power should not be overstated, however. Argentina was an independent country, and the Monroe doctrine asserted the willingness of the United States to resist any European attempt to create a 'sphere of influence' in South America. Yet the United Kingdom was Argentina's most import export market and source of investment capital, and the economic relationship was very similar to that between the United Kingdom and its Australian colonies.

The breakdown of the global economy 1914–45

The process of globalization went into reverse for most of the 20th century. To understand this process, it is necessary to examine the way in which the global economic institutions of the 19th century broke down. By 1914, the global economy

of liberal capitalism faced external and internal stresses which seemed likely to result in major structural changes.

Domestically, the system involved an apparently unstable balance between newly enfranchised democratic electorates, which expected government action to redress the inequities of capitalism, and highly mobile international capital, which demanded adherence to the doctrines of sound finance. Williamson (1998) argues that the contradiction between open borders and domestic sovereignty had already generated significant movement towards tariff protection and restrictions on immigration by the early 20th century. The collapse of the system in 1914 left unresolved the conflict between globalization and domestic sovereignty, which re-emerged as a vital issue in the 1990s.

The question of whether the global economic system could have survived these stresses was rendered academic by the failure of the political system to prevent the outbreak of the Great War in Europe. By the time Germany and its allies surrendered in 1918, Britain's position as the leading world economy had been lost forever, and trade among the European economies had fallen almost to zero. Wartime inflation had forced the major powers to abandon gold convertibility.

Nevertheless, the prime objective of policy after 1918 was to return to pre-war normality as rapidly as possible. In political terms, the break-up of the Austro-Hungarian and Russian empires allowed the completion of the 19th century movement to redraw European boundaries on the lines of nationalist theory, inevitably creating a new set of national grievances and drawing the battle lines for future wars. Apart from the attempt to demilitarize Germany, the only move away from the Hobbesian theory of international politics was the creation of the ineffectual League of Nations.

In economic terms, normality meant not merely a return to the gold standard, but a return to pre-war price levels. The need to force price levels down required a long deflationary slump and high unemployment throughout the 1920s (Keynes 1925). By the late 1920s, however, it appeared to most observers that pre-war normality had returned. Although the return to the gold standard had been made unduly difficult by insistence on a return to pre-war parities, it had been achieved. Trade was expanding rapidly. Most importantly, the United States, now unquestionably the world's leading economy, was booming. Moreover, it was widely believed that the newly developed tools of monetary policy allowed central banks to stabilize the economy, eliminating the century-old cycle of boom and slump.

The Great Depression, which followed the stock-market crash of 1929, ended hopes of a return to the 19th century economic system. The gold standard was finally abandoned and tariff barriers were greatly increased. Trade was increasingly confined to blocs by devices such as Imperial preferences. More than this, the Depression discredited liberal capitalism, seemingly forever. Even the supporters of capitalism were disillusioned, or at least recognized the inevitability of some move away from *laissez-faire*. The 'economic policy for a free society', put forward by leading Chicago economist Henry Simons (1948), allowed for far more government intervention than the free-market orthodoxy of the 19th century.

The most effective theoretical challenge to the free-market system was Keynes' (1936) analysis showing how unemployment could remain high indefinitely because of inadequate demand. The most effective practical challenge was Roosevelt's New Deal, which showed that government intervention could yield substantial benefits. Support for Keynesianism and for more extensive systems of economic planning was greatly enhanced by the experience of the wartime planning between 1939 and 1945. The contrast between the chaos of the Depression and the success of wartime planning convinced most observers that *laissez-faire* capitalism was fundamentally flawed.

The failure of free-market economic policies after 1914 guaranteed the failure of the Versailles political settlement. The Great Depression led to the rise of Hitler and then to the renewal of world war in 1939. The global economy of the 19th century and the associated political system were gone, seemingly forever.

The Bretton Woods era 1945–71

After 1945, the victorious allies sought to establish a set of national and international institutions that would secure peace, ensure that the Depression did not return, and protect people from the chaos and insecurity associated with unregulated free markets. Whereas in 1919, the aim of post-war reconstruction had been to return to pre-war 'normality', the economic and political institutions of the 1945 settlement were based on the view that the institutions of the past had failed.

The crucial institutional decisions were made at Bretton Woods (New Hampshire, United States) in 1944, and led to the establishment of two international institutions, the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the World Bank). The IMF was to provide short-term assistance to countries experiencing balance-of-payments problems. The World Bank was to provide long-term finance for development projects. These institutions, it was hoped, would provide a framework for international capital flows which captured the benefits available from international borrowing and lending without the instability associated with uncontrolled international markets.

In the Bretton Woods system, the United States took over the role played by Britain in the gold standard system. The US dollar was convertible into gold at a fixed rate of \$35 per ounce. Hence, as long as other countries maintained fixed exchange rates with the US dollar, their currencies were effectively pegged to gold. As a result, the stability of the system depended, in the long term, on the maintenance of price stability. However, the restrictions on capital flows, the availability of short-term assistance from the IMF and the fact that occasional devaluations and revaluations were considered acceptable meant that, over fairly long periods, moderate inflation was consistent with the maintenance of the system.

The system of international relations that emerged after 1945 saw the world divided into three parts. The Bretton Woods institutions were designed and largely operated by the developed capitalist countries. The 'Eastern bloc' of countries under Communist rule was largely isolated from the rest of the world, at least until the *detente* of the 1970s. The process of decolonization, which was largely completed by 1970, produced the 'Third World' a collective term for the less-developed-countries

which emphasized their distinctness from the first two groups and reflected aspirations for an independently determined development strategy.

The Bretton Woods system of international relations was closely related to the use of Keynesian macroeconomic policies by domestic governments. For most of the period from 1945 to 1970, governments successfully employed Keynesian policies to maintain both full employment and low inflation. As a result, the system of fixed exchange rates was sustainable. As the notion of the 'impossible trinity' implies, fixed exchange rates and independent domestic policies are inconsistent with free international movement of capital. The Bretton Woods system relied crucially on a range of restrictions on short-term capital flows.

The Bretton Woods period was unparalleled in the history of capitalism as one of full employment and rapid economic growth in the developed countries. However, the Bretton Woods system came under increasing strain from two main sources. The first was the rise of inflation rates in most developed countries. Sustained inflation undermined both the international role of the US dollar as a reserve currency pegged to gold and the Keynesian system of domestic economic management. The second source of strain was the gradual relaxation of the tight restrictions on international capital movements that prevailed at the end of World War II. Exchange controls were relaxed in many countries. Moreover, acting from a variety of motives, governments acquiesced in the development of a 'Eurodollar' market, trading in \$US-denominated financial instruments but operating in European centres outside the control of the US Federal Reserve.

The inflationary surge associated with the financing of the Vietnam War would eventually have forced the abandonment of \$US convertibility into gold. However, the process was accelerated by the increased capacity of participants in international financial markets to speculate against currencies seen as overvalued. In 1971, convertibility was abandoned and the Bretton Woods system collapsed. The result was rapid deregulation of international capital markets, which enhanced pressure for deregulation of domestic capital markets and a consequent reorientation of all forms of government activity to meet the demands of national and international capital.

Globalization since 1971

With the breakdown of the Bretton Woods agreement and the inflationary boom and slump of the early 1970s, the system of fixed exchange rates was abandoned. Most countries allowed their currencies to float, and relaxed or abandoned restrictions on international capital flows. This episode is often referred to as the 'OPEC oil shock'. However, an inflationary surge, leading to a boom in commodity prices was well under way by the time the Organization of Petroleum Exporting Countries (OPEC) raised oil prices in October 1973. The oil shock was a consequence, not a cause, of the breakdown of the Bretton Woods system (Eatwell and Taylor 2000).

The move to floating exchange rates was associated with a reaction against Keynesianism. The standard Keynesian framework offered no prescription for a combination of inflation and unemployment. The briefly fashionable monetarist approach, advocated most effectively by Milton Friedman, appeared to offer a solution which would work well in the context of floating exchange rates. In terms of the 'impossible trinity', Friedman (1968) argued that the exchange rate could be left to

the market, which would eliminate any unsustainable deficits or surpluses by bidding exchange rates up or down. Hence, governments could allow free flows of capital and still pursue independent macroeconomic policies.

The policy favoured by Friedman was one in which the rate of growth of the money supply was fixed at a level consistent with moderate inflation. Although monetarist policies never worked well and were quickly abandoned, Keynesianism has not regained its former dominant position. Over time, most countries moved to a system that may be referred to as 'monetary activism' in which monetary policy is adjusted by central banks to stabilise the economy (with a heavy emphasis on controlling inflation) and only modest use is made of fiscal policy.

The breakdown of the Bretton Woods system and the abandonment of Keynesian macroeconomic policy contributed in a number of ways to a more general turn towards free-market policies. Belief in the effectiveness of government intervention in general was undermined by macroeconomic failures and support for free-market policies grew.

Moreover, rising unemployment and declining rates of economic growth produced what has been called 'the fiscal crisis of the state'. This term refers to the incapacity of governments to meet the obligations associated with expanding provision of health, education and welfare services without raising taxes beyond the level that individual taxpayers and more seriously, owners of capital, are willing to accept.

The global economy in the 21st century

Trade in goods and services

As shown in Table 1, the ratio of merchandise exports to world GDP has risen modestly, from 8.7 per cent in 1913 to 13.5 per cent in 1990. Writers who are sceptical of claims about the importance of globalization have used this observation to suggest that there is really nothing new in the globalized economy of the 21st century.

On the other hand, it has been argued that growth in intra-industry trade and trade within global corporations is indicative of a deeper level of integration than the 19th century model in which raw materials from the colonial and developing world were traded for manufactured goods from the developed world (Reich 1991, Feenstra 1998).

The decline of manufacturing in developed countries is often seen as the result of globalization and, in particular, of the displacement of domestic manufacturing by imports from less developed countries. Although there is an element of truth in this view, it is, in general, misleading. The share of imports in wealthy countries that is derived from relatively poor countries, say, those with wages 50 per cent below the wealthy-country level, has not changed much since the 1950s. In the 1950s, for example, Italy was a poor country when compared to its wealthy trading partners.

Much of the growth in world trade has been in trade among wealthy countries. The growth of trade within Europe is particularly important.

The importance of intra-EU trade in assessing the growth of world trade

One of the most important developments in international integration has been the rise of the European Union (EU). Since its beginnings in the European Coal and Steel Community after World War II, the EU has steadily grown both by ‘broadening’ (including more countries) and by ‘deepening’ (increasing the degree of economic, political and social integration between countries). The EU (2002) now includes fifteen European countries and at least a dozen more are expected to join within the next few years.

The most dramatic single examples of ‘deepening’ have been the creation of a directly elected European Parliament and the adoption of a single currency, the euro, by twelve European countries. This currency union implies the adoption of a common monetary policy. The extent of deepening may be seen by considering the set of laws and rules, referred to as ‘*acquis communitaires*’ that new entrants to the Union must adopt (existing members have some capacity to opt out of particular chapters). In the current version, laid down in the 1997 Treaty of Amsterdam, there are 31 lengthy chapters, covering issues ranging from the free movement of goods to culture and audiovisual policies (EU 1999).

Not surprisingly, the high levels of integration within the EU have promoted trade among member countries. Trade among the 15 members of the EU in 1999 was estimated at 63 per cent of total EU trade or about 27 per cent of world trade. (Table 2).

Table 2: Shares in World Trade 1948–99

	1948	1953	1963	1973	1983	1993	1999
Western Europe	31	34.9	41	44.8	39	43.7	43
			23.1	27.7	23.1	27.3	27.3
North America	27.5	24.6	19.4	17.2	15.4	16.8	17.1
Latin America	12.3	10.5	7	4.7	5.8	4.4	5.4
Eastern Europe	6	8.2	11	8.9	9.5	2.9	3.9
Africa	7.4	6.5	5.7	4.8	4.4	2.5	2
Middle East	2.1	2.1	3.3	4.5	6.8	3.4	3.1
Asia	13.8	13.2	12.6	15	19.1	26.3	25.5
Intra-EU trade*			56.3	61.8	59.2	62.5	63.4

Source: World Trade Organization

* As proportion of total EU trade

On the other hand, the growth of intra-EU trade tends to weaken many popular claims about globalization are considered. This is because much of this growth in trade has come as a result of reductions in trade from non-EU countries, an effect of integration referred to by economists as ‘trade diversion’. Intra-EU trade now accounts for 27 per cent of total world trade.

Capital flows

The recent popularity of the term 'globalization' primarily reflects the growth of international capital markets. The aggregate value of financial instruments traded in international capital markets is now 100 times as great as the value of imports and exports and this ratio is growing. The Bank of International Settlements reports that for the United States, the volume of cross-border financial transactions rose from 9 per cent of GDP in 1980 to 135 per cent of GDP in 1995.

The volume of long-term international capital flows is still smaller, in relation to world output, than it was at the turn of the century. The massive growth in the volume of financial transactions is predominantly due to growth in short-term transactions, which have been facilitated by improvements in computing and communications technologies and by the development of new financial instruments, generically described as 'derivatives'. The main difference between the globalized economy of today and that of the 19th century is therefore the greatly increased volume of short-term financial transactions relative to 'real' flows of goods, services and long-term investment.

In considering the growth of short-term international capital flows relative to long-term investments, it is important to note that a similar increase in the volume of short-term transactions has taken place in domestic capital markets.

Growth in the volume of short-term financial transactions has been due, in large measure, to technological developments that have increased the speed and reduced the cost of short-term financial transactions. Transaction costs such as brokerage fees are of little importance in relation to long-term investment. Thus while technological change is important in explaining growth in the volume of short-term capital flows, it is largely irrelevant in relation to long-term flows, and it is the latter which are most important in relation to most claims about globalization.

The dependence of short-term flows on transactions costs may be illustrated by considering the practice of 'day trading' which rose to public prominence during the US stock-market boom of the late 1990s. The distinguishing characteristic of day trading is that all stock holdings are resold on the same day on which they are purchased. Assuming 250 trading days per year, commissions of 0.2 per cent on each purchase and sale would amount to a 100 per cent ($250 * 0.2 * 2$) of the total amount invested over the course of a single year. Hence, a day trading system is feasible only with very low transactions costs (and even then, only if prices are highly volatile).

The example of day trading illustrates another important point about the increasing dominance of short-term transactions in financial markets. Claims about the beneficial influence of financial market liberalization rest, in large measure, on the idea that financial markets exhibit a kind of collective rationality, producing the best possible judgements about matters such as the future profitability of particular stocks. The general practice of day traders is to seek to anticipate, as rapidly as possible, short term movements in stock prices based on changing patterns in prices and volumes. Day traders contribute nothing to the collective rationality of the market while potentially adding noise to market signals.

The same point holds, with qualifications, to traders operating on time horizons of a week or a month. A market in which most traders have such short time horizons is unlikely to reward careful research into long-term prospects.

Migration and movements of labour

One of the most striking differences between the global economy of the 19th century and that of the 21st relates to migration and the movement of labour. Until the end of the 19th century, there were virtually no restrictions on people seeking to move from one country to another, other than restrictions on emigration imposed by some authoritarian governments. Passports, where they were in use, were analogous to letters of introduction, requesting assistance to travelers on behalf of their home government.

Some supporters of globalization such as Williamson (1998) argue that restrictions on immigration introduced in the United States and other jurisdictions in the early 20th century were one of the principal causes of the breakdown of the globalized economy at that time. They argue that similar political forces, primarily supported by those in the developed economies who have suffered as a result of international competition, may bring an end to the current era of globalization.

The general statement that migration and movements of labour are more constrained than in the 19th century must be qualified in a number of ways. First, reductions in the real cost of travel, and in the time required for international travel have contributed to a massive expansion in short-term international travel for purposes of tourism, business and study.

Second, restrictions on migration are largely irrelevant to the ‘international elite’, including business owners, managers and skilled professional workers. The fact that these workers are internationally mobile, while less-skilled workers are not, has contributed to growth in wage inequality and to pressure for less progressive tax systems. However, this factor should not be exaggerated. The costs of a permanent shift from one country to another remain significant, particularly for those with substantial tangible and intangible assets in their home countries. International migration of professional workers remains relatively modest in comparison to the total labour force.

Another countervailing trend has been the growth of the European Union, which requires member states to allow free movement of EU nationals (slightly less generous provisions are extended to the remaining European non-members, Norway and Sweden). However, the effective barriers to labour mobility, including language differences and limited portability of pension rights, remain substantial.

The primary effect of migration is that experienced by migrants themselves, who typically earn considerably more in their destination countries than they would have done by remaining in their home countries. However, remittances from migrant workers to their home countries tend to reduce the inequality of world income.

The effect is generally small. However, there are exceptions, such as the Indian State of Kerala, which maintains unusually high education and health states despite a low level of domestic product. The Kerala economy is sustained by remittances from

migrant workers which contribute about 25 per cent of state income. The resulting gap between state income and state domestic product is probably the largest for any jurisdiction in the world.

Theories of globalization

Although the basic facts set out above are accepted by most participants in the debate over globalization, interpretations of those facts and their relevance to contemporary policy issues differ radically. The most popular interpretation, and that most commonly associated with the term ‘globalization’, may be referred to as neoliberal¹, and involves the claim that globalization necessitates the adoption of free-market policies.

Three alternative perspectives may be considered. The first position involves scepticism about the significance of the observed growth in trade and capital flows.² Advocates of the second position accept most of the factual propositions put forward by supporters of globalization, but argue that the process is harmful rather than beneficial. Finally, advocates of the third position, referred to as internationalism, support further international integration but argue for integration on the basis of cooperation among governments, non-government organization and international bodies, rather than on the basis of open market competition.

The neoliberal theory

In its strongest form, the neoliberal theory states that globalization is both inevitable and, in the absence of futile attempts at resistance, beneficial. The neoliberal theory is, perhaps, best summarised by Friedman’s (1999, pp. 86-87) metaphor of the Golden Straitjacket. The metaphor embodies the claim that, while globalization constrains the options available to governments, it offers unparalleled prosperity to those countries that comply with its requirements. To fit into the Golden Straitjacket, Friedman argues, a country must adopt the following golden rules:

- making the private sector the primary engine of its economic growth;
- maintaining a low rate of inflation and price stability;
- shrinking the size of its state bureaucracy;
- maintaining as close to a balanced budget as possible, if not a surplus;
- eliminating and lowering tariffs;
- getting rid of quotas and domestic monopolies;
- increasing exports;
- privatizing state-owned industries and utilities;
- deregulating capital markets and the domestic economy;
- opening banking and telecommunications to private ownership and competition; and
- allowing citizens to choose from an array of competing pension options.

¹ Two difficulties with this term must be noted. First, like most ideological labels, the term is more commonly used by opponents of neoliberalism than by supporters, who tend to see their own position as embodying self-evident truths rather than a specific theoretical or ideological framework. Second, in the United States, the term is often used more specifically to describe advocates of a neoliberal position within the Democratic Party, particularly those associated with the Democratic Leadership Council.

² It is sometimes facetiously referred to as the ‘globaloney’ school.

Two differing interpretations of the experience of the global economy in the 19th century are given by supporters of the neoliberal theory. Advocates of a technological explanation of globalization tend to dismiss the 19th century experience as largely irrelevant. They focus on the technical complexity of modern trade patterns, in which a given product may have components from many different countries, by contrast with the 19th century pattern in which raw materials were imported from imperial colonies, processed into manufactured goods and then re-exported.

An important implication of this approach, made most explicit in the 'Third Wave' theory of Toffler and Toffler (1994) is that the social-democratic institutions of the Bretton Woods era were appropriate to their time, but have now been rendered obsolete by technological change. This implication is particularly appealing to former social democrats who now advocate a neoliberal policy framework. This version of neoliberalism often takes the form of a 'Third Way', supposed to transcend the dichotomy between social democracy and policies, such as those of the Thatcher government in the United Kingdom, which may be seen as simply returning to the economic institutions and values of the 19th century. The technological explanation of globalization will be critically examined below.

Others, particularly economists, emphasise the continuity of today's global economy with that of the 19th century, and argue that the breakdown of the 19th century era of globalization was the result of mistaken policies similar to those advocated by contemporary critics of globalization. Williamson (1998) argues that large-scale migration during the 19th century tended to equalise factor prices, raising wages and lowering rents in Europe, while lowering wages and raising rents in the Americas and Oceania. Williamson sees the restrictions on immigration introduced in the United States and elsewhere around the turn of the 20th century as the primary cause of the breakdown of globalization, and attributes these restrictions to political pressure from relatively low-income workers, who were the main losers from immigration.

A number of qualifications must be applied to this argument. First, since flows of labour and long-term capital in the current era of globalization are much smaller than in the 19th century, the argument from analogy needs to be treated with care. Williamson's historical account could be read as showing that increases in trade alone make very little contribution to global income convergence. Second, the breakdown of the global system during the Great War and the failure to reconstruct it after the War can better be explained by examination of events within Europe, and by the inherent weaknesses of a gold standard system, than by the immigration policies of countries in the New World, though these may have had some contributory effect.

Sceptical views

The neoliberal theory of globalization has been criticized on a number of counts. First, sceptics emphasise the similarities between the global economy of the 19th century and that of today, then point to the economic weaknesses that characterized the earlier era of globalization (Hirst and Thompson 1996, Baker, Epstein and Pollin (1998). In particular, the combination of fixed exchange rates and free capital flows that characterized the gold standard is seen as a source of economic instability and as the primary cause of the Great Depression.

Globalization sceptics extend this criticism to the international financial structure that has arisen since the breakdown of the Bretton Woods system. Unrestricted international capital movements, particularly short-term movements, are seen as destabilizing and undesirable.

As well as disputing the beneficence of international capital markets, sceptics cast doubt on claims about their power to punish countries that fail to adopt neoliberal policies, expressed in Friedman's (1999) idea of an irresistible 'Global Herd'. The critique of this idea, as it applies to macroeconomic policy, may be explained in terms of the 'impossible trinity'. An independent monetary policy cannot be sustained in combination with free capital flows and a fixed or targeted exchange rate.

However, a government which wishes to pursue an independent monetary policy can do so, either by constraining international capital flows or by allowing the exchange rate to fluctuate. During the Asian economic crisis, Malaysia adopted the first approach and Australia the second. Both countries performed better than those of their neighbours which adopted contractionary domestic policies in reaction to exchange rate pressure.

Similar arguments are presented in relation to the welfare state. Theorists of neoliberal globalization argue that exposure to international competition will force countries to reduce expenditure on welfare and community services. However, empirical evidence suggests that public expenditure is generally higher, relative to national income, in countries where the ratio of trade to national income is high (Mitchell 1991). Interpretation of this result is complicated by the fact that most such countries are EU members, whose trade is primarily with other EU members.

Time-series evidence is similarly unfavourable to the neoliberal theory. The ratio of public expenditure to national income rose steadily in all developed countries during the Bretton Woods period. Since the breakdown of Bretton Woods, this growth has continued, though less rapidly and with occasional reversals. Limits on the capacity of governments to raise additional revenue, reflected in the 'tax revolts' of the 1970s, seem more significant in explaining the slowdown in growth of public expenditure than does international competition. These internal pressures are commonly referred to as the 'fiscal crisis of the state' (O'Connor 1973).

One argument frequently advanced in support of the neoliberal view until recently was that the developed countries could not maintain expensive social security systems and publicly-financed health and education in the face of competition from Asian economies with low taxes and minimal welfare states. The attractions of this model have waned following the crises of 1997 and 1998. In particular, it has become apparent that the ability of Asian societies to maintain social harmony with minimal public expenditure on welfare rested on two transitory conditions that have now passed.

The first, common to all countries in the early stages of development, was the fact that the urban workers most vulnerable to economic fluctuations were recent migrants from the countryside, who could return to their villages in periods of recession. The second was part of the 'virtuous circle' associated with prolonged prosperity. As long

as Asian economies kept growing rapidly, there was no need for social security systems. The resulting low tax rates enhanced competitiveness and promoted growth.

In the wake of the crises, the inadequacy of existing systems has become apparent. As Ortiz (2001, pp 599-600) notes: 'The countries affected by the Southeast Asia crisis have discovered that inadequate and underdeveloped social protection systems have exposed their working population to excessive risk, increased the incidence of poverty, and threatened to undermine longer term human capital investment efforts'.

There is now widespread agreement on the need for a combination of public, private and market-based measures, commonly referred to as 'multipillar' systems of social protection. Ortiz (2001, p 611) observes: 'Most countries have evolved toward a multipillar mixed public-private system that contains two basic elements: (i) public programs to assure minimum income to the aged, unemployed and other vulnerable groups; and (ii) private programs that encourage voluntary supplementation by individuals. In the case of old-age pensions, a third intermediate pillar is added: public or private programs that provide retirement benefits scaled to individual incomes'.

Differences in social conditions, historical development and cultural values will produce different outcomes in different countries. To the extent that policies converge, this is more the result of similar responses to common pressures, and of the worldwide spread of popular ideas, than it is the effect of global competition for capital. Thus, many European social democracies, faced with the need to constrain growth in public expenditure, are moving towards a three-pillar model for retirement income, but this process was not motivated primarily by competition from Asia, and has continued even after the apparent 'threat' from the Asian miracle economies has receded.

The picture is more complex in the former Soviet Bloc and in less developed countries that were influenced by the Soviet model. In the Soviet Union and the economies modelled on it, there was no real distinction between the government and business sectors and no meaningful measure corresponding to total government revenue or expenditure. State-owned enterprises provided a wide range of services (housing, education and so on) for their employees that would, in a Western 'mixed economy' typically be provided by government. The financing of central government functions such as defence relied to a large extent on payments from state-owned enterprises, with no clear distinction being made between taxes and remittances of profits.

With the collapse of Communism, it became necessary to construct taxation and public expenditure and social services systems from the ground up. Some participants in this process envisaged an outcome that would retain positive features of the centrally planned economy. Others, such as former Czech Finance Minister and Prime Minister, Vaclav Klaus, envisaged a minimal state, with a radical free-market orientation. While the final outcome remains unclear, and will differ from country to country, it appears that most Eastern European countries are moving towards a model similar to that of West European social democracies. This tendency to convergence will be enhanced by membership of the European Union.

Another point of criticism relates to growth in trade. Whereas theorists of neoliberal globalization point to the complexity of international trade patterns, sceptics focus on the growth of regional trade agreements, and particularly of the EU. As was observed above, the fact that trade has grown faster than world output in the last thirty years is largely due to trade within the EU. Trade within an economic union like the EU is unlikely to produce many of the effects associated with popular theories of globalization.

Consider, for example, the view that globalization encourages countries to pursue international competitiveness by reducing environmental standards. Leaving aside the question of whether increasing exposure to international competition does in fact encourage reductions in environmental standards, it is evident that no such effect arises from EU trade. Under Chapter 22 of the *acquis communautaire* all members of the EU are required to adopt a common legislative framework and to achieve minimum standards set by the EU as a whole.

Trade between the EU as a whole and the rest of the world has declined relative to EU GDP over the past thirty years. It follows that to the extent that competitive pressures act to constrain the independence of governments to pursue domestic policy, these pressures have declined in Europe, at least in relation to policies covered by the *acquis communautaire*.

The crucial example is that of fiscal and monetary policy. The macroeconomic policies of EU members, particularly in the euro area, are tightly constrained, but not (at least not directly) by international capital markets. Under the Maastricht accords of 1992, and the subsequent Stability and Growth Pact signed in 1997, members of the EU are required to limit budget deficits and reduce the ratio of public debt to GDP. The adoption of these targets was in part, a response to concerns that international financial markets might lack confidence in the newly-established euro. Nevertheless, for any individual EU member, the binding constraint on fiscal policy is that imposed by the collective processes of the EU, and not the possible responses of international financial markets.

Antiglobalism

The term ‘antiglobalism’ covers a disparate range of views. Broadly speaking, antiglobalists accept the claims of supporters of globalization about the pace of globalization and the power of international financial markets, but regard some or all of the consequences of globalization as harmful. In the popular literature, a range of concerns are covered by Martin and Schumann (1997) and Klein (2001).

Martin and Schumann focus on the impacts of globalization on European economies, with particular emphasis on pressure to reduce wages and social welfare benefits. Their tone is generally pessimistic, even, at some points, apocalyptic. Broadly speaking, they agree with Friedman regarding the inevitability of neoliberalism, but far from sharing his enthusiasm for the Golden Straightjacket, they regard the outcomes of globalization as deplorable.

Klein deals with broader issues, and adopts a cultural approach, considering the relationship between the production and trade networks organised by multinational companies such as Nike and the brand images projected by the same companies. She

argues that brand-focused companies are inherently vulnerable to political pressure regarding their business practice, so that the shift by multinational enterprises from production activities to a brand focus is ultimately self-defeating.

In the academic literature, debates are typically more narrowly focused. The view that trade exerts downward pressure on real wages in developed countries, and is responsible for the stagnation in US real wages for much of the 1980s and 1990s has been debated by Wood (1994, 1995) and others. Similar debates have taken place in other developed countries and in middle-income countries, such as Mexico and Taiwan, faced with competition from lower-wage alternatives.

The antiglobalist view of the trade debate is one in which multinational companies act as monopoly suppliers of investment and jobs, demanding the lowest possible wages and the most generous concessions with respect to taxation, workers rights, environmental standards and so on. The World Trade Organization is seen as facilitating a race to the bottom, by prohibiting trade retaliation against countries that attract investment by lowering employment and environmental standards.

Some responses to arguments of this kind have downplayed the importance of trade as a determinant of relative wages. The crucial observation is that the ratio of imports from low-wage countries to the output of developed countries (particularly the United States) is small (Freeman 1995). Moreover, this ratio has not grown much over time, particularly when account is taken of the fact that during the 1950s and 1960s, trading partners such as Italy and Japan were 'low-wage' countries relative to the United States (Quiggin 1996). Advocates of this view see the growth in wage inequality within the English-speaking world either as a result of technological change (Krueger 1993, Krugman 1996), or as a consequence of the adoption of neoliberal policies, domestically as well as internationally (Quiggin 2001).

An alternative response, more closely associated with neoliberal support for globalization, accepts that trade has reduced the wages of workers in developed countries, but rejects the monopoly model set out above. On this view, reductions in wages for relatively well-off workers in developed countries have been more than offset by higher wages and improved job opportunities in less developed countries (Williamson 1998).

Internationalism

The term 'globalization' did not come into prominence until the 1990s, and is only tenuously related to earlier uses of the term 'global' such as McLuhan's (1964) metaphor of the 'global village'. A much older idea, coinciding with neoliberal theories of globalization in some respects, and diametrically opposed to it in others, is that of 'internationalism'.

Many of the central ideas of internationalism were set out by Angell (1911). Angell sought to refute the supposedly 'realist' views espoused by thinkers such as Clausewitz (1832, republished 1968), whose contemporary successors include Kissinger (1994). Angell argued that the use of war to pursue national economic objectives was outmoded in a modern, internationally interdependent economy. Angell argued that, even if an aggressive power could conquer its neighbours, it would gain no economic advantage from doing so. Workers in the conquered

territories would still have to be paid, as would owners of capital, and any taxable surplus would be minimal in comparison to the cost of maintaining an occupation force. Angell concluded that rational governments should therefore eschew war as an instrument of policy.

The outbreak of the Great War in 1914, which set in train a series of wars and armed truces ending only with the collapse of the Soviet Union in 1991, was seen by many as proving Angell wrong. In fact, however, the War and its aftermath proved Angell right on every point except his hope that governments would act in their own interests and that of the people they were supposed to serve.

The outcome of the Great War disproved the beliefs of the strongest advocates of realism, the governments of the German and Austrian empires, who imagined they could promote their own, and their nations' interests through the judicious use of military force. Nevertheless, the victorious powers sought, at Versailles, to do what Angell had argued was impossible, that is, to exact from their defeated enemies economic benefits sufficient to pay for the costs of the War. The attempts to collect reparations failed almost completely, but not before contributing to the Great Depression, the rise of the Hitler and the renewal of open war in 1939.

The main concession to internationalism in this period was the creation of the League of Nations. After a promising start, the League collapsed when the major powers failed to support it.

After World War II, the Soviet Union persisted with 'realist' attempts to extract the spoils of victory, but the dominant Western power, the United States, pursued exactly the opposite approach through the Marshall plan, giving massive aid to allies and former enemies alike in a successful bid to reconstruct their economies and benefit from the resulting opportunities for trade and co-operation. The creation of international bodies such as the United Nations, the World Bank and the International Monetary Fund also reflected the internationalist outlook.

Although it received comparatively little attention at the time, an equally significant internationalist initiative was the creation in 1952 of the European Coal and Steel Community through the initiative of Jean Monnet and Robert Schumann. The Coal and Steel Community, the first step towards the current European Union was explicitly designed to promote the kind of economic (and ultimately social and cultural) integration that would render war unthinkable.

In summary, then, internationalism shares with neoliberal theories of globalization a belief that international trade and economic integration are beneficial. However, neoliberal theories envisage trade taking place in unregulated or lightly regulated markets, disciplined by international capital flows, and acting as a lever to promote competition in domestic markets. In this vision, only goods, services and capital flow across international boundaries, while governments, unions and non-government organizations are, as far as possible, confined within them and constrained by them.

By contrast, internationalist theories see trade as providing a basis for more extensive international co-operation. The contrasts between the two approaches may be seen by comparing the European Union to the World Trade Organization which, under former

Director-General Ruggiero, aspired to ‘write the constitution of a single global economy’. As has already been noted, the constitution of the European Union, currently embodied in the Treaty of Amsterdam, sets out basic requirements across the entire spectrum of public activity, from the environment and social welfare to defence and criminal justice. By contrast, the constitution envisaged by the World Trade Organization consists almost exclusively of negatives, that is, prohibitions on activities that may be seen as improper constraints on the free flow of goods and services. The now-abandoned Multilateral Agreement on Investment would have extended the same protections to flows of capital.

The role of technology

Globalization is commonly claimed to be the inevitable result of technological changes and, in particular, the innovations in computing and telecommunications that have taken place since the 1970s. Until very recently, claims of this kind were associated with a more general argument that these technologies had led to the development of a flexible ‘New Economy’, which, it was claimed, was characterized by rapid growth and the end of the ‘boom–bust’ business cycle.

Despite its superficial appeal, the technological explanation of globalization breaks down when it is applied to the experience of the 19th and 20th centuries. The technological innovation central to the argument, instantaneous communication between international financial markets, was introduced with the laying of the Atlantic submarine cable in 1866, which made it possible to transmit messages between Europe and America by telegraph using Morse code.

It is useful here to draw a contrast between economic globalization and other forms of international integration. Improvements in transport and communications technology continued throughout the 20th century, even as flows of capital were subjected to increasingly stringent restrictions and governments intervened more and more in the market. The volume and rapidity of international flows of information increased fairly steadily throughout the 20th century. It was in the 1960s, when the Bretton Woods system was at its height, and capital flows tightly controlled, that McLuhan (1964) coined the metaphor ‘the global village’.

In view of the weakness of technological determinism as an explanation of economic globalization, it is important to undertake a critical assessment of claims about technological developments of the period since the 1970s. Three questions are particularly worthy of consideration.

First, has the rate of technological progress accelerated or decelerated? Second, have recent technological changes reduced the viability of social-democratic policies and therefore made neoliberal globalization, in some form, inevitable? Third, and conversely, do recent technological changes offer opportunities for a progressive policy agenda?

The slowdown in technological progress

Contrary to claims made during the recent Internet bubble, there is strong evidence to suggest that the rate of technological progress has deteriorated since the end of the

Keynesian post-war boom. Although the precise pattern of the slowdown has not been the same for all developed countries, it is useful to look at the experience of the United States.

Before addressing the question, some clarifying points must be made here. First, technological progress is the result of an interaction between the development of scientific and technological knowledge and the capacity of economic and social institutions to make use of that knowledge. If investment is inadequate or misallocated, potential innovations will not be translated into improvements in living standards.

The experience of the period since 1970 is best explained in terms of a deterioration in the performance of economic institutions rather than as the result of a slowdown in scientific progress. Since the breakdown of full employment in the developed economies, and the advent of financial deregulation, public investment has declined in most countries, and private investment has followed cycles of boom and bust. In boom periods, most notably that of the United States in the late 1990s, scarce resources have been squandered on speculative investments. During periods of under-investment, opportunities for innovation have been wasted.

Second, in the case of less developed and middle-income countries, the main problem is that of catching up to the technological frontier represented by the most developed economies. Hence, even though technological progress at the frontier has slowed down, it has been possible for countries in the catch-up phase to enjoy rapid economic growth.

Finally, although the simplest measure of technological progress is that of labour productivity, it is more useful for many purposes to focus on 'multi-factor' productivity measures that take account of capital and other inputs as well as labour. High levels of investment can lead to increases in labour productivity but such increases will not be sustained if investment subsequently declines.

The United States economy experienced strong productivity growth during the 19th and early 20th centuries, catching up to and surpassing the previous leading economies, the United Kingdom and Germany. At the end of World War II, the United States had productivity levels well above those in other developed countries. Productivity growth in the United States remained strong between 1945 and the early 1970s, although other developed countries, which were in the catch-up phase, experienced even stronger growth.

Contrary to some commonly-held views about globalization and technology, the rate of productivity growth in the United States declined after 1973, coinciding with the breakdown of the Bretton Woods system and the advent of unregulated international capital flows on a large-scale.

This slowdown persisted until the mid-1990s, despite impressive progress in computing and telecommunications, leading many observers to cite the well-known observation of Solow (1987) that 'the computer revolution is visible everywhere but in the productivity statistics'. From 1949-1973, the US Bureau of Labor Statistics (BLS) estimates that non-farm multifactor productivity grew at 1.9 per cent per year.

From 1973 to the mid-1990s, the comparable number was 0.2 per cent. Many US commentators argued that the productivity statistics must be misleading.

The BLS ultimately revised its estimates upwards to take account of changes in product quality. In combination with the boom of the late 1990s, this change led to a recovery in estimated productivity growth. Although updated estimates of multifactor productivity growth are not yet available, estimates of the rate of growth of labour productivity were comparable to those of the period before 1973. This growth was widely attributed to innovations facilitated by the Internet and to the general flexibility of the US economy.

The evidence of the late 1990s, however, is far from conclusive, and observers such as Gordon (2000) offer a more sceptical view. Gordon observes that, impressive though the Internet has been, it can scarcely be regarded as having the same impact as innovations such as electricity, the internal combustion engine, the chemical industry, telecommunications or indoor plumbing, all of which were developed between 1860 and 1900.

Conversely, rapid progress in electronics and communications has been matched by slow progress or stagnation in other important areas of technology, such as transport. Passenger air transport developed dramatically from the first powered flight in 1903 to the introduction of the Boeing 'jumbo jet' in 1967 and the supersonic Concorde shortly afterwards. In the ensuing thirty years only incremental advances have been made. The Concorde remains at the technological frontier and the jumbo jet is still the main workhorse of long-haul passenger travel.

A similar point may be made with respect to land transport. From the first motor cars of the 1880s to the Model T Ford of 1920, and from the Model T Ford to the cars of 1960 dramatic advances were made, but the innovations between 1960 and 2000 have more modest.

As a final example, the technology of housework was revolutionized by innovations made between 1900 and 1950, including vacuum cleaners, washing machines and electrical lighting. The last such innovation of any significance was the microwave oven, which came into widespread use in the 1970s. Projections made in the 1960s suggested that household robots would be in widespread use by 2000, but this prospect seems as distant as ever.

The second point made by Gordon (2000) and others is that the improvement in labour productivity observed in the United States is primarily a cyclical phenomenon. The current recession has already resulted in some slowdown in productivity, and downward revisions in productivity estimates are likely.

Technology and neoliberal globalization

Whatever their ultimate effects on productivity, there is no doubt that the personal computer and the Internet have been experienced by many users as radical innovations, providing, in the words of Shiller (2000) an illusion of mastery over the world. Shiller argues that because of the vivid personal impression the Internet makes, people find it plausible to assume that it also has great economic importance. This is

surely correct. However, expectations about the Internet are a mirror of the culture in which they arise.

The initial development of the Internet was undertaken by academics, many of whom shared the ‘countercultural’ views that arose in the 1960s and 1970s. Many members of this group believed that the Internet and related technologies would lead to radical social and economic changes, such as the replacement of competitive capitalism by some form of co-operative anarchism. Until the mid-1990s, there was vigorous opposition to any commercial exploitation of the Internet.

As the Internet expanded and the commercial activities of the .com domain (which gave rise to the popular term ‘dotcom’) became dominant, the belief that information technology would drive radical economic and social change became steadily stronger, but claims about the likely nature of these changes were modified in line with the wishes of the newly dominant groups. Instead of bringing an end to competition, it was claimed, the Internet would lead to a hyper-competitive era of ‘turbo-capitalism’ in which small, nimble, technologically sophisticated and entrepreneurial enterprises would prosper at the expense of large corporations and governments, both of which were frequently derided as ‘dinosaurs’.

The crucial ideas were derived from a combination of the ‘Third Wave’ theories of Toffler and Toffler (1994) and arguments about the impact of international financial markets. Whereas earlier discussion of the growth of financial markets tended to present this phenomenon as the result of the economic unsustainability of the Bretton Woods system, discussion in the 1990s focused on technological determinants such as improvements in communications. The weakness of this claim has already been noted.

Claims that the ‘new economy’ would be dominated by small entrepreneurial firms have proved ill-founded. Many such firms were established during the speculative boom of the late 1990s, but a large proportion have already failed, or been acquired by larger enterprises. In fact, the new economy has proved more vulnerable to monopolization than the old. Many markets are already dominated by a single firm, including those for computer operating systems (Microsoft), CPU chips (Intel), most general-use software (Microsoft) and, in the United States, Internet access and content (AOL Time Warner).

Possibilities for a progressive agenda

Even after discounting the inflated claims of ‘new economy’ enthusiasts, it is clear that the economic importance of information has increased greatly over recent decades. The central role of information provides numerous possibilities for a progressive political and social agenda.

Information has long been seen as a pure example of a ‘public good’, which is completely non-rival in consumption. That is, making information available to one person does not reduce its availability to anyone else. Information also displays very limited excludability. That is, once information has been disseminated to any significant extent within any one group, it is difficult to keep it secret from others, or to prevent them from making use of it. Because of these characteristics, private

enterprises will usually produce less than the socially optimal amount of information and will then employ costly methods of restricting access.

A number of social devices have been used to respond to these difficulties. Patents assist firms in excluding competitors from the use of their ideas. This increases the private reward for producing useful information, but the patent restrictions mean that the information is not used as much as would be optimal. Copyright protection for the expression of ideas works similarly. In both cases the trade-off between rewarding the producers of information and allowing its optimal use has been resolved by limiting the period for which patent or copyright protection applies.

Patent and copyright protection works reasonably well where information has immediate commercial value. More fundamental research and research in areas of limited commercial application such as the social sciences and humanities cannot be funded in this way. It has therefore been undertaken primarily by publicly-supported workers in universities or research institutes.

In addition to direct public rewards, the provision of useful information is encouraged by the social norms of professions and academic disciplines. A professional or academic writer whose work is well-regarded and widely cited receives a variety of formal and informal non-monetary rewards, such as professional honours, peer approval and personal satisfaction.

The Internet is a device for disseminating information. It is not surprising, therefore, that both the Internet and its most notable application, the World Wide Web, were developed primarily by university academics and other researchers seeking ways to exchange information. The Internet was developed through a combination of public funding (initially from the US Defence Department and later from universities) and voluntary contributions of effort by the academics who made up the Internet community. By contrast, competing commercial initiatives, such as CompuServe, were less successful because of their need to restrict access to paying customers, and because participants in the network saw themselves, correctly, as paying customers rather than as participants in a collective enterprise. Ultimately, the commercial networks either ceased operation or were absorbed into the Internet.

As has already been noted, the 'New Economy' boom was based on the idea that new technology implied a fundamentally different form of capitalism, in which the path to profits lay in the adoption of the non-commercial norms of the Internet, such as free sharing of information and ideas. Now that these ideas have lost their appeal, many of their former advocates have suggested either that the entire Internet enterprise is a failure or that, in future, most information on the Internet will be supplied only in return for payment.

Neither the initial New Economy view nor its pessimistic converse is justified. Through the ups and downs of the commercial Internet, the free sharing of information by public sector and non-profit organizations, academics, researchers and private individuals has continued to expand. With the 'dotcom' mania receding into history, it is now time to reconsider earlier, more idealistic, visions of the Internet, based on the idea of genuinely free exchange of information. Initiatives in making

information more freely available may come from the voluntary sector, the public sector and from collaborations between the two.

One of the oldest examples of a (nearly) purely voluntary effort is Project Gutenberg. Commenced in 1971 at the University of Illinois, this is an attempt to make available, in electronic form, public domain editions of all significant works of literature. The main project produces English text, but there are now parallel projects for many other languages. The project initially required volunteers to type in texts, but now relies on optical scanning and character recognition with voluntary proofreading. The only public contribution to the project was the initial provision of free computer time by the University of Illinois.³

Government initiatives in many countries have greatly increased the accessibility of public information. One set of initiatives, such as the Online Government Initiative in Australia, requires government agencies to make information available on the Internet. Another set has sought to extend public access to the Internet to members of the community who lack the financial resources or technical knowledge required for home Internet access. Initiatives to provide Internet connections for public libraries, community centres and schools have been prominent in this respect.

Initiatives of this kind have come into conflict with the neoliberal policy agenda of making the public sector more business-like and competitive. Within the business sector, the norms of commercial confidentiality and intellectual property act to restrict the free exchange of information, though, as noted above, these norms were briefly submerged during the 'dotcom' boom.

In the education sector, for example, increasing pressure for schools and universities to compete for students and funding has led managers to discourage sharing of information and ideas with competitors and to seek to assert ownership of material such as lecture notes and lesson plans. In view of the public good nature of information such an approach obviously reduces social welfare.

Attempts to commercially exploit intellectual property of this kind have proved unsuccessful. A crucial development has been the decision of the Massachusetts Institute of Technology (MIT), a non-profit private institution which receives extensive public funding, to adopt the OpenCourseWare initiative, which will make the course materials that are used in the teaching of virtually all of MIT's courses available on the Web, free of charge, to any user anywhere in the world. MIT courses themselves will not be offered online. Rather, the goal of the initiative is to provide the content that supports an MIT education.

At present, governments and public sector organizations seeking to increase the public availability of information have been concerned primarily with domestic policy objectives. However, as the stated objectives of the MIT initiative show, the worldwide character of the Internet means that even greater benefits are likely to arise from international sharing of information. The availability of MIT course materials will be modestly beneficial for well-resourced universities within the United States. Far greater benefits can be anticipated for institutions in poorer countries with a

³ More information is available at <http://promo.net/pg/>.

limited capacity to develop or purchase their own materials. Of course, it is necessary for such institutions to have some Internet access of their own. However, the costs of basic Internet access are steadily declining.

Trends in income inequality within and between nations

The question of whether world income is becoming more or less unequal has recently been the subject of somewhat polemical controversy. The heat surrounding the issue reflects the claim that changes in inequality reflect the effects of globalization on the poor. Supporters of globalization argue that the international distribution of income has become more equal. In some cases, they go on to conclude that opposition to globalization reflects the self-interested concerns of those in developed countries whose income is declining, at least relative to beneficiaries of globalization in poor countries. By contrast, opponents of globalization tend to focus on the distribution of income within countries and to argue that globalization has everywhere led to 'the rich getting richer and the poor getting poorer'.

Writers sceptical of large claims about the impact of globalization have tended to steer clear of this debate. However, a survey of the literature on the determinants of economic growth suggests that many factors other than openness to trade and capital flows may influence economic growth. The most consistently important factor is education (Barro 1991).

The index number problem

A central problem in comparing living standards between countries is the fact that there is no uniquely accurate way of measuring national income. Even if attention is confined to the consumption of goods and services, any measure of national income involves combining many different goods and services: food, clothing, health services and so on. There is no natural way of adding apples and oranges, let alone apples and appendectomies.

In a given country with a market economy, for a particular time period, a measure of national income may be obtained by valuing each item of consumption at the prevailing market price. However, prices differ between countries and over time in any given country. Comparisons made using one set of prices may not yield the same results as comparisons made using a different set. A large body of economic analysis, known as index number theory, has developed in response to these difficulties.

In the case of comparisons between countries, a simple way of comparing GDP levels is provided by exchange rates. Given an estimate of United States income per person, expressed in US dollars, and, say, Indonesian income per person, expressed in rupiahs, the Indonesian estimate may be converted into US dollars at the prevailing exchange rate.

It is easy to see that this procedure is unsatisfactory. Exchange rates fluctuate markedly from day to day, but living standards usually do not. Even if exchange rates converge to some equilibrium level over time (a point on which evidence is mixed) this level will only reflect the relative prices of traded goods and services. There is,

then, no reason to accept the ‘purchasing power parity’ (PPP) hypothesis that, on average, a unit of one currency will have the same purchasing power if it is converted into another currency at the market exchange rate.

In response to this difficulty, economists have sought to develop more accurate comparisons of living standards. The most systematic attempt have been based on data collected by the International Comparisons Project (ICP) and extended by the Penn World Tables group and later by the World Bank.

The crucial idea is to use a fixed set of prices, derived as a weighted average of those in the ICP data set, to value outputs. These prices are commonly called ‘world prices’. Because of the nature of the ICP data set, such prices are essentially an average of prices prevailing in the wealthy OECD countries. Estimates derived for participants in the ICP study may be extended to non-participants in various ways, none of which are entirely satisfactory.

The estimates of income per capita obtained using this process are frequently referred to as ‘PPP-adjusted’. However, this term reflects an aspiration rather than an accomplished fact. The index numbers produced by the ICP are designed with the objective of producing internationally comparable measures of purchasing power, but only a few researchers have examined the extent to which this goal has been realized.

The theoretical basis of modern index number theory is the concept of revealed preference. The crucial idea is as follows. Using the ICP data, it is possible to measure, for example, average Australian and Japanese levels of consumption of all goods and services. The set of average levels for all commodities is referred to as a ‘consumption bundle’. Suppose that, given average Australian income and Australian prices, it would have been possible to purchase all the items in the Japanese consumption bundle and have money left over. Since this bundle was not chosen, the average Australian consumer presumably feels better off than she would if she had the consumption of her Japanese counterpart.

Suppose that, on average, Australian and Japanese consumers have similar tastes and preferences. Then, presumably the average Japanese consumer, with average Japanese income and facing average Japanese prices, cannot afford the average Australian consumption bundle, since we have already seen that it is regarded as preferable to the actual Japanese consumption bundle. In this situation we would say that the Australian consumption bundle is ‘revealed preferred’ to the Japanese.

Obviously, it is possible that the reverse situation may occur, that is, that the Japanese consumption bundle may be revealed preferred to the Australian. It is also possible that neither bundle may be revealed preferred to the other. This possibility arises because consumer tend to purchase more of goods and services that are relatively cheap. Thus, for example, housing in Australia is relatively cheap and electronic goods are relatively expensive, while in Japan the reverse is true. Thus, the average Japanese consumer could not afford to buy or rent a typical Australian house, but, on the other hand, the average Australian consumer could not afford the average Japanese consumption bundle including among other things, electronic goods.

One check of the validity of a ‘PPP-adjusted’ measure of income is that it should not produce violations of revealed preference. That is, the PPP measure should not rank one country above another if the consumption bundle of the second country is revealed preferred to that of the first. Dowrick and Quiggin (1993, 1994) show that the ICP estimates usually, but not always, pass this test.

A more general observation arising from this discussion is that a country's national income will appear higher the more different its prices are from those used in the construction of the index number. The ICP indexes, derived primarily from prices prevailing in wealthy countries tend to give relatively high estimates of income in poor countries. In particular, labour-intensive services that are relatively cheap, and therefore relatively heavily consumed, in poor countries are valued at the higher prices they would command in wealthy countries. By contrast, since these services are usually not traded, they are ignored altogether in exchange rate comparisons.

As a general rule, exchange-rate comparisons tend to overstate the differences in income between countries and therefore the level of world inequality. The ICP index numbers are more accurate but they tend to ‘overcorrect’, leading to overestimates of relative income levels in poor countries, and therefore to underestimates of global inequality (Dowrick and Quiggin 1997, Neary 2000).

Homothetic indexes

Further complications arise with attempts to derive formal measures of inequality and also with the analysis of growth and convergence. Most measures of inequality are applicable only to variables measured on a ratio scale so that it is possible to say, for example, that income per person in the United States is twice as great as in Turkey. The standard theory of revealed preference provides a basis for an ordinal ranking but not for a ratio scale. A pure ratio scale is applicable only if preferences are homothetic, that is, only if, at given prices, the expenditure shares of different commodities remain constant as income increases.

Preferences are not, in general, exactly homothetic. It is well known that the proportion of expenditure allocated to food declines as income increases. However, it turns out that homothetic index numbers can be used to represent relative income levels over quite a wide range (Dowrick and Quiggin 1997, Manser and McDonald 1988). Dowrick and Quiggin derive an index of this kind, with particularly appealing properties, called the ‘ideal Afriat index’, because of its link to the work of Afriat (1967). Using the ideal Afriat index, Dowrick and Quiggin show that conclusions drawn on the basis of Geary–Khamis PPP indexes are not necessarily valid.

Dowrick and Quiggin (1997) analyze data for the OECD and find strong evidence of income convergence, that is, reductions in income inequality between countries, for the period from 1980 to 1990. By contrast, analysis based on Geary–Khamis PPP indexes yields no clear result. It should be noted, however, that there is no general presumption that the use of more accurate index numbers is more likely to indicate reductions in inequality. As discussed below, the opposite appears to be true when a sample including poor countries is used.

Income inequality

Some about changes in the distribution of global income appear incontrovertible, though even simple statements of facts frequently arouse strong responses in debates of this kind. First, there are a number of East Asian and South-east Asian countries (such as Taiwan, South Korea and Singapore) where the majority of people were poor in 1960 but where most people now enjoy incomes approaching those of developed countries. Second, there is a larger group (including Malaysia and Indonesia) where incomes, although still lower than those of the developed countries, have clearly risen significantly over the last three decades. Third, there are a number of poor African countries where income has declined absolutely or at least relative to the rest of the world since the 1960s. Fourth, the income and wealth of the richest citizens of the United States and other developed countries has risen substantially.

The last two facts imply that the very rich are getting richer and the very poor are getting poorer. Thus measures of inequality based on extremes of the income distribution (for example the ratio of the top and bottom deciles) show unambiguous increases in inequality. On the other hand, measures of inequality such as the Gini coefficient give a good deal of weight to changes in the middle of the income distribution. When countries are weighted by population in the calculation of the Gini index, the resulting measures are largely determined by estimates for China and India, which together account for about 40 per cent of the population of the world.

Over the period since 1980, the inequality of average national incomes, measured using exchange rate conversions, has increased substantially. By contrast, measures of inequality based on Geary-Khamis estimates, and with countries weighted by population size, have generally decreased. As in the case of measurements of the level of inequality, the Afriat ideal index yields an intermediate result. Dowrick and Akmal (2002) estimate changes in global inequality using the ideal Afriat index and find a slight increase between 1980 and 1993.

The picture is further complicated by consideration of income inequality within countries. Inequality has increased substantially in wealthy English-speaking countries. However, there has been no clear trend towards greater inequality in continental Europe. Most observers of developments in China suggest that there has been a substantial increase in inequality along with rising average income. The World Bank (1997) estimates that the Gini coefficient for the distribution of income in China rose from 0.28 in 1981 to 0.38 in 1995. Similar results are reported by Deininger and Squire (1996), though Yao (2000) argues that the growth in inequality was confined to the period 1985–91.

When growth in the inequality of income in China is taken into account, Milanovic (2001) concludes that inequality in global income increased between 1988 and 1993. Melchior (2001), relies on the analysis of Yao (2000) to argue that this period was atypical, and that global income inequality has generally declined in recent decades.

To summarise, changes in the pattern of global income distribution have been too complex to allow for a simple description of the last 25 years in terms of rising or falling inequality. Large numbers of people in poor countries have experienced significant income gains at a time when the growth rate of developed countries has been relatively slow. On the other hand, the poorest countries have become poorer as

have many of the poorest people in countries like China. Moreover, within many countries, the rich have become much richer.

If the opposing biases of exchange-rate and Geary–Khamis indexes are avoided, there is no clear pattern in overall measures of the inequality of global income. Measures sensitive to the extremes of the distribution generally show an increase in inequality. Measures like the Gini coefficient, which give more weight to the middle of the income distribution, show either no trend or a modest decline in inequality.

The relationship between inequality and globalization

As has already been noted, much of the heat associated with debates about estimates of changes in the inequality of global income is linked to claims that such changes are the result of globalization. This claim raises complex issues regarding the meaning of the term ‘globalization’.

Some of the difficulties may be seen by considering the case of China, which is the main determinant of changes in population-weighted Gini measures. In the period since 1970, the Chinese economy has been converted from an idiosyncratic form of communism, largely separate from the rest of the world, to a primarily capitalist system engaged in trade on a large scale. On the other hand, restrictions on international flows of capital remain stringent, and state control over the economy is extensive.

The strong growth in aggregate output achieved by the Chinese economy since the 1970s may be seen as evidence that ‘globalization’ is beneficial and tends to reduce international inequality. The implicit assumption is that China has benefited from abandoning Maoist economic policies such as those of the ‘Great Leap Forward’ and will benefit even further from the comprehensive implementation of a neoliberal policy program.

It could equally be argued however, that China's existing policies are preferable both to the Maoist economic policies of the past and to the removal of remaining restrictions on trade and capital flows, labour markets and so on. Since China's economic policies are more interventionist and less open than those of any developed countries, this treatment would present China's successes as evidence against globalization. On this view, the growth of inequality within China would be seen as a negative side-effect of liberalization that would be exacerbated by an unrestricted embrace of neoliberal policies.

Similar arguments apply with respect to India. India's economic growth accelerated after 1980, and even more rapidly after 1990. It seems reasonable to attribute much of this improved performance to economic reforms including the removal of a range of import restrictions. As with China, however, some of the policies in place prior to the reforms, such as the imposition of tariffs and license restrictions on imports of machinery and other capital goods, seemed clearly misguided. The fact that the removal of these policies improved economic performance does not give much guidance regarding more general claims about globalization.

Similar points may be made with respect to the strong performance of Asian economies in general. The range of economic policies pursued in these countries is so

diverse that it is very difficult to draw any lessons with respect to globalization, unless the term is defined in a manner that begs the question. Clearly all these countries have benefited from participation in the global economy and their success counts as evidence against the autarchic policies pursued, for example, by North Korea. To a lesser extent, the success of the Asian economies may be seen as evidence in favour of an export orientation, and against the import-substitution approach to development commonly advocated in the 1950s and 1960s.

However, most of the strong performance of the East Asian economies prior to the late 1990s may be accounted for in a more prosaic fashion. Most of the output growth in 'miracle' economies could be accounted for by growth in inputs of human and physical capital. Moreover, because of the high savings rates in these countries, most of the capital inputs in the period of rapid growth were supplied by domestic rather than foreign investors.

This does not detract from the achievements of these countries, which stands in sharp contrast to less successful development efforts elsewhere. Growth in the input of human capital reflected both an effective education system and a relatively equal initial distribution of income, which ensured that a large proportion of the population was able to take advantage of educational opportunities. The fact that households were willing to save and to invest their savings in local enterprises reflected the political stability and rule of law that characterized these countries. In many other developing countries, the risk of expropriation and political breakdown led to low savings rates and capital flight.

International income flows

Recent changes in the pattern of international income flows reflect a mixture of changes in market conditions and changes in the policy stance of governments and international organizations. These changes arose after the debt crises of the 1980s.

In responding to these crises, the International Monetary Fund typically required governments to cut public expenditure, sell or close loss-making public enterprise and remove a variety of regulatory policies. Although these policy responses were far from uniformly successful, it appeared to work better than any alternative. John Williamson of the Institute for International Economics coined the term 'Washington consensus' to describe the set of economic assumptions and policy prescriptions associated with the response to the debt crisis, reflecting its general acceptance by major Washington-based institutions including the IMF, the World Bank and the United States Treasury (Williamson 1990).

Official development assistance

As noted above, the adoption by the United States of the Marshall Plan after was central to the rapid economic recovery of Western economies after World War II. The success of the Marshall Plan led to widespread hope that aid from wealthy countries would help less developed countries to catch up with the developed world. As with the Marshall Plan itself, the provision of official development assistance was motivated by a mixture of humanitarian concerns, geopolitical objectives and hopes for the development of profitable trade relationships.

With the end of the Cold War, geopolitical motives for aid have almost disappeared. Moreover the neoliberal ideology that informs the Washington consensus is generally unsympathetic to policies based on humanitarianism, and receptive to arguments that aid is inherently counterproductive (Easterly 2001).

The Marshall Plan had consumed between 2 and 3 per cent of the national income of the United States in the years immediately after World War II. In 1969 a United Nations Commission led by Lester Pearson, the Canadian Prime Minister, called for 0.7 per cent of the gross national product of rich countries to be given in aid, excluding commercial loans and military expenditure. This target was endorsed by the OECD and the United Nations, but was never met.

Although the EU has recently endorsed the UN target, and some countries, such as Denmark have actually exceeded it, the majority of OECD members have never reached the target and the total proportion of the income of developed countries allocated to official development aid has fallen over time, reaching an all-time low of 0.22 per cent in 2000.

The United States is by far the least generous donor, allocating 0.1 per cent of national income to official development aid, about one-third of the proportion for the EU as a whole. An unfortunate legacy of the Marshall Plan is a widespread belief among ordinary Americans that the United States spends a great deal on foreign aid. As the US Agency for International Development (<http://www.usaid.gov/about/polls.html>) notes,

A strong majority says that the United States is spending too much on foreign aid. But this attitude is based on the assumption that the U.S. is spending vastly more than it is, in fact. Asked what an 'appropriate' amount would be, the median level proposed is 5 times present spending levels. ...Asked to estimate how much of the federal budget goes to foreign aid, the median estimate was 15 percent, 15 times the actual amount of 1 percent. The average was even higher -- 18 percent.

When informed about the actual amount of spending on foreign aid, a strong majority favours either maintaining it or increasing it. Asked how they would feel if the U.S. would spend 1 percent (the amount the U.S. does spend) 18 percent said this would be 'too much' -- down from the 75 percent who had originally said the U.S. is spending too much. Thirty-three percent said this would be 'too little' and 46 percent said it would be about right.

Despite these optimistic interpretations of public attitudes in the United States, there seems little prospect of an increase in US official development assistance beyond the current level of \$9 billion per year. It seems more likely that development aid expenditure by EU countries will increase, although some recent election outcomes, in which xenophobic and nationalist parties received increased support, cast doubt on this prospect.

Government debt

Until the 1980s, governments played a major role in international capital flows. In particular, a large proportion of capital flows into less developed countries took the

form of loans to the governments of those countries from private banks, international organizations and the governments of developed countries. Such sovereign lending expanded rapidly after the oil crisis of 1974, as a way of recycling the 'petrodollars' paid to OPEC members and deposited by them in international banks.

In the less favourable economic conditions of the 1980s, many sovereign borrowers defaulted or rescheduled their debt, and new lending to governments declined. By the 1990s most international capital flows involved transactions between private firms, although crises involving official debt continued to arise, for example in Brazil in 1998 and Argentina in 2001.

In the case of Argentina in particular, the crisis that began in 2001 represented the failure of the structural adjustment program adopted in 1992, which was centred on a currency board that fixed the peso to the US dollar. This financial solution, which revalued the debt downwards, was associated with a comprehensive policy of privatization and deregulation consistent with the 'Washington consensus'.

The adjustment program in Argentina was initially seen as highly successful. Indeed, as late as January 2000, Steve Hanke, the most prominent advocate of currency boards as an adjustment policy was still citing Argentina as a clear success (Hanke 2000). Although some neoliberal economists were sceptical of currency boards, the vast majority felt that the economic dynamism unleashed by the Washington consensus reforms would resolve Argentina's economic problems.

The after-effects of the 1980s crisis also persisted for the group of 'heavily indebted poor countries' (HIPCs). Many of these countries experienced net capital outflows after the debt crisis, and their current accounts were burdened by the need to service outstanding debt. These countries were generally unattractive to private lenders and received only modest flows of private investment and lending. The rapid growth of indebtedness in these countries during the 1970s and 1980s and the subsequent decline in net lending is described by the World Bank Global Development Finance Report (2002).

Following the emergence of widespread public concern in developed countries, a concerted initiative to address their problems was launched under the auspices of the World Bank and IMF. By the end of December 2000, agreements were in place to 22 countries, 18 of them in Africa, for debt service relief amounting to some \$34 billion. However, initiatives of this kind can only partly redress the effects of reductions in general foreign aid programs. Indeed, if debt reduction is financed by reductions in general aid, it may do more harm than good.

Private debt and equity

Particularly for middle-income developing countries, private flows of debt and inequity capital have become more important than flows directly involving governments. However, such flows are highly volatile, as was illustrated by the rapid outflows of capital (some foreign and some domestic) during the Asian crisis. Although flows of capital to less developed countries have recovered since the late 1990s, they remain below earlier levels in many cases and have fallen behind growth in trade and output.

Although the total volume of private capital flows has continued to expand, most of the growth has consisted of flows among developed countries. There has been large growth in flows within trading blocs such as the EU and the North American Free Trade Area (NAFTA). In addition, sustained current account deficits in the United States have been financed by net flows of capital amounting to around \$US400 billion per year, about 10 per cent of the total gross flow of long-term financial capital. As a result, a declining proportion of long-term international investment flows have gone to less developed countries.

Corporate remittances and special economic zones

Private investments are made in the expectation that they will generate a flow of interest or dividend income. In some cases, such income is reinvested in the country in which it is generated. On average, however, sustained inflows of capital investment give rise to outflows of interest payments and corporate remittances.

Difficult problems arise in relation to the treatment of foreign-owned enterprises with respect to taxation and exchange controls. In many cases, investment in such enterprises will take place only under conditions of low taxation, free capital movement and light-handed regulation. There are, however, a number of reasons why national governments might not wish to apply such conditions to domestic enterprises.

One solution has been the creation of ‘special economic zones’ where a variety of favourable conditions, such as tax exemptions and limited regulation, are available to foreign investors. The most famous example, and one of the most successful, is that of Shenzhen in China, established near the border with Hong Kong in 1980.

In general, special economic zones appear most useful as a transitional or experimental mechanism, enabling countries to assess the impact of possible market-oriented reforms on a small scale without committing to a nationwide program of ‘shock therapy’. Over time, major differences in regulation within a given country are likely to be exploited in undesirable ways. For example, domestic entrepreneurs will seek to organise sham transactions enabling them to benefit from tax exemptions applicable in special zones. In the long term, substantial discrimination between domestic and foreign-owned enterprises, whether foreign-owned enterprises are favoured or discriminated against, is unlikely to be sustainable.

This does not necessarily imply that a legal guarantee of non-discrimination is desirable. As experience with NAFTA and with the abortive negotiations over the proposed Multilateral Agreement on Investment has shown, such guarantees may have unforeseen consequences. Foreign corporations may be able to overturn regulations that are non-discriminatory in form and intent, by arguing that they are harmed relative to their competitors. In effect, guaranteed non-discrimination may ensure discrimination in favour of foreign business.

Royalties and intellectual property

‘Intellectual property’ is the term commonly used to describe rights to control the use of ideas and products embodying those ideas. Important examples of such rights are patents and copyrights. Payments for the use of intellectual property are commonly referred to as ‘royalties’, reflecting the original status of patents as monopoly rights granted to individuals or corporations by the monarch.

Although the term ‘intellectual property’ suggests that such payments are analogous to, say, rent on privately-owned land, there are crucial differences. Unlike land, information is a public good, that is, use by one individual or country does not reduce its availability to another. Economic theory gives little guidance as to the optimal arrangements for the pricing of public goods. Systems of intellectual property rights invariably represent a compromise between the desirability of disseminating ideas as widely as possible and the need to provide returns sufficient to encourage the production of new ideas.

The issues are even more problematic in an international context, where the production of most forms of intellectual property is concentrated in developed countries. Even if rigorous protection of intellectual property encourages more research, the costs to less developed countries may outweigh the benefits.

Not surprisingly, this conflict of interest has been reflected in policy. In the 19th century, the United States was a net importer of ‘intellectual property’, particularly in relation to culture. Not surprisingly, US copyright laws were weak, and books by British and other European authors were routinely ‘pirated’.

The situation is reversed today. The United States is a net exporter of most forms of intellectual property. Not surprisingly, the scope and the duration of copyright and patent protection have been extended. The United States has taken a leading role in seeking to incorporate intellectual property rights into the international trade system through the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), negotiated as part of the Uruguay Round of trade talks and managed through the World Trade Organization.

Developed countries, particularly the United States, have sought a régime in which naturally-occurring genetic material can be freely appropriated, but in which the products of research on such material receive patent protection. A similar situation applies in relation to cultural issues. Advocates of intellectual property based in developed countries have typically assumed that cultural traditions, including those of less developed countries, may be freely appropriated, while the resulting cultural products are entitled to extensive copyright protection.

Two possible responses have been made by advocates of the interests of less developed countries. On the one hand, there have been attempts to expand the scope of intellectual property, for example by restricting the use of indigenous cultural motifs. On the other hand, there have been attempts to reduce the monopoly power of owners of intellectual property rights, for example through expansion of ‘fair use’ provisions. To some extent these responses are contradictory. However, as the position of other participants in the intellectual property debate has shown, logical consistency is not a primary consideration in debates over property rights.

In recent years, some of the most vigorous debates have concerned pharmaceutical products, particularly those used in the treatment of HIV/AIDS. In 1998, Brazil announced that it would produce anti-AIDS drugs such as AZT without paying royalties. (This possibility is envisaged in cases of national emergency under Article 31 of TRIPS.) After lengthy legal and political battles, major pharmaceutical

companies have agreed to license production of drugs such as AZT in other less developed countries at costs far below those previously charged. A useful discussion of the issues is WHO (2000).

It is difficult to determine the total value of international flows of royalty payments, since some are embodied in the prices of goods, and the quality of statistics on 'invisible' items such as royalties is generally lower than that of merchandise trade statistics. The pharmaceutical royalty trading company Drug Royalty Corporation estimates the total value of the market in pharmaceutical royalties at around \$US10 billion per year. Estimates of the US share of the market range from 30 per cent to around 50 per cent (UNDP 2001).

Other industries where intellectual property rights generate an important component of total revenue include computer software, music, films and books. The United States is a major exporter in all these industries, and less developed countries are net importers.

Although the value of royalties is still relatively small in relation to national income for developed countries, it is growing rapidly. More importantly, the cost of royalties for specific items such as pharmaceuticals and computer operating systems is often large in relation to the health and education budgets of less developed countries. The most notable example is that of retroviral drugs to treat HIV/AIDS. At the annual rate of \$US10 000 charged in developed countries, treatment for the 4.2 million HIV-positive people in South Africa (the wealthiest country in sub-Saharan Africa) would cost \$US42 billion per year, almost as much as the entire national budget. At the somewhat lower prices proposed by the pharmaceutical companies in the mid-1990s, the cost of treatment would still have exceeded the entire health budget, and most of this cost would have been made up of royalties. Of course, even in the absence of royalty payments, the burden of HIV/AIDS exceeds the capacity of many poor countries to respond (Commission on Macroeconomics and Health 2001).

Potential policy responses

Progressive and neoliberal versions of globalization

As has been shown above, simplistic versions of the globalization hypothesis, based on the idea that history exhibits an inexorable trend towards increasing international economic integration and the removal of constraints on flows of goods and capital, are mistaken. Nevertheless, in broad terms, the long-run growth in various forms of international interaction and interdependence is undeniable.

The policy question facing national governments and international organizations is not, then, whether to support or oppose 'globalization'. The crucial question is 'What kind of globalization?' or, more generally, 'What are the most appropriate institutional frameworks and policies to manage international relations, taken in the broadest possible sense to encompass, trade, financial, cultural and political relationships?'

The standard 'neoliberal' concept of globalization may be contrasted with older ideas of internationalism. The key idea of globalization is to prevent governments from

intervening in the operations of competitive global markets. By contrast, the central idea of internationalism is the need for co-operation between governments and peoples to achieve desirable global outcomes.

Both ideas have some validity, but the recent debate has been excessively focused on international competition, to the detriment of co-operation.

National and global public goods

This is part of a more general trend in developed countries, in which the importance of services has grown at the expense of agriculture and manufacturing. Within the service sector, 'tertiary' activities such as wholesale and retail trade, which add value to the products of the agricultural and manufacturing sectors, have maintained a roughly constant share of total employment. The major areas of employment growth in developed countries have been those involving information and human services, such as health and education.

All of these activities display, to a greater or lesser extent, characteristics of public goods, namely non-rivalry and non-excludability. Non-rivalry means that if a good or service is provided to one person, it can be provided to others at no additional cost. Information presented on, for example, a web site is non-rival, except for the cost of responding to queries, which is typically minimal even for sites with thousands of visitors per day. Non-excludability means that the only way of providing the good or service to anyone is to provide it to everyone. Many public health measures, such as reductions in air pollution display non-excludability, at least within a given air shed.

Most goods and services are neither perfectly non-rival nor perfectly non-excludable. But even in the case of 'impure' public goods, displaying partial non-rivalry and non-excludability, market provision rarely works optimally, and some element of public funding or public provision is required.

In recent years, there has been increased interest in 'global' or 'regional' public goods, where the characteristics of non-rivalry and non-excludability extend beyond national boundaries. Important examples include components of our common cultural and environmental heritage, such as measures to control climate change, global health, knowledge and information, and world peace (Kaul, Grunberg and Stern 1999).

Interest in the notion of global public goods is closely related to the notion that international transfers associated with financing for the provision of such goods could replace or supplement official development aid. It remains unclear, however, whether developed nations will agree to systems of financing for global public goods that entail large financial transfers to poorer countries. Moreover, in some cases, transfers for the financing of public goods may be funded by reductions in official development aid.

The crucial test in this respect will be the implementation of the Kyoto protocol on reductions in carbon dioxide emissions. As Barrett (1999) observes, the Montreal protocol on reductions in emissions of ozone-depleting gases provides a successful precedent. However, the financial scale of the mitigation program and the associated

international transfers was far smaller than that required to stabilise emissions of CO₂ as required by Kyoto, let alone to halt the accumulation of CO₂ in the atmosphere.

Trade, environment and labour

One of the central issues in the debate over globalization has been the extent to which international trade agreements should take account of concerns over environmental and labour issues. Environmental issues have arisen in relation to a number of trade disputes both among developed countries and between developed and less developed countries. Concerns about labour issues have typically been raised by labour representatives. In some cases workers in developed countries have sought restrictions on imports from developing countries with lower wages and working conditions. In other cases, concerns have been raised by trade unionists in less developed countries protesting against restrictions on workers' rights imposed by national governments.

The environmental aspects of the issue are beyond the scope of the present paper. In discussing labour issues, it is useful to distinguish between procedural rights and outcomes (Aggarwal 1995). Some disputes have focused on the absolute level of wages paid to workers in less developed countries. Some critics of globalization have argued that these are inherently unfair, either by comparison with wages in developed countries or by comparison with the final retail price of goods, such as Nike sporting shoes, produced by low-wage workers in less developed countries.

In one sense, the low wages paid by multinational companies to workers in poor countries are unfair. In a just world, all workers would have access to the opportunities enjoyed by workers in developed countries. But such an outcome could only be achieved through large-scale transfers of wealth from rich to poor countries. In the absence of such transfers, suggestions that imports from poor countries should be restricted because wages in those countries are low only exacerbate the problem.

Rather different issues arise in relation to procedural rights such as the right of workers to form independent trade unions, bargain collectively and so on. There does not seem to be any reason why restrictions on workers' procedural rights that are not considered acceptable in developed countries should be acceptable in less developed countries. A close examination of arguments against the extension of workers' procedural rights in less developed countries shows that many of these arguments are equally applicable to developed countries and are little more than restatements of the neoliberal case against unions and related labour market interventions. Further discussion of many of these issues is given by Brown (2001).

International financial system

Since the mid-1990s, international financial crises have occurred regularly, and these crises have been severe. The majority have occurred in developing and formerly-communist countries including Mexico in 1994, a large number of Asian countries in 1997 and 1998, Russia in 1998, and Turkey and Argentina in 2001 and 2002. However, the failure of Long Term Credit Management, an unregulated 'hedge fund' based in the United States, threatened the solvency of a number of major banks and raised the possibility that even developed countries were not immune from serious financial breakdown.

Moreover, with the exception of Russia and, to a lesser extent, Argentina (as discussed above), the crises were different in kind from those that had taken place in earlier decades, such as the debt crises of the 1980s. In the earlier cases governments had undertaken large-scale borrowings. Many of these borrowings were used to finance wasteful projects, or simply to enrich corrupt ruling elites. In other cases, investments based on the widely-shared expectation of rising energy prices led to large losses when energy prices fell after 1980. The resulting interest burdens contributed to chronic budget deficits and current account deficits. As noted above, the Washington consensus approach, based on reductions in public expenditure and sale of public assets, was a response to these crises.

The crises of the 1990s exposed weaknesses in the Washington consensus approach to financial stabilization. In general, the crises arose much more rapidly than in the 1980s. More importantly, the countries affected were generally perceived, at least prior to the crises as having followed the policy prescriptions of the consensus. For example, a World Bank (1993) report on the East Asian economic 'miracle', concluded that the rapid growth of these countries reflected the benefits of sound government policies. In the aftermath of the crises, the same countries were widely accused of having adopted a form of 'crony capitalism' inferior to that of the developed countries. This claim, however, was in large measure an *ex post* rationalization.

Similarly, some advocates of the Washington consensus, such as US Treasury Secretary O'Neill have applied the traditional analysis to the recent crisis in Argentina, focusing on the government's failure to control the budget deficit. This analysis ignores the fact that Argentina took the lead, among Latin American countries, in implementing the prescriptions of the Washington consensus, going so far as to tie its currency to the US dollar. It was the persistent overvaluation of the US dollar, and therefore of the Argentine peso that generated the crisis and caused the budget deficit to grow.

The IMF responded to the Asian crises by applying the standard policy prescriptions of the Washington consensus, including cuts in public expenditure and the removal of interventionist government policies. These policies were of little use in a situation where the main problems related to private financial transactions, and in some cases they clearly made matters worse. Another element of the Washington consensus was successfully challenged by Malaysia's imposition of exchange controls, a policy regarded by advocates of the consensus as both unworkable and economically damaging, but which appeared to insulate the Malaysian economy from the worst of the crisis.

Since the Asian crisis, the deficiencies of the existing system of international financial relations have been recognised quite widely. This recognition has grown with subsequent crises, particularly that of Argentina. Proposals for reforms, often referred to, rather grandly, as a 'new global financial architecture' have been canvassed, and widely discussed among central banks and international financial institutions. However, as yet, little progress has been made. The most innovative suggestion to gain widespread support has been for the creation of a procedure analogous to bankruptcy that could be pursued by national governments unable to service their debts. Although potentially valuable, this idea would have been more useful as a

response to the crises of the 1980s, which typically arose because governments were unable to repay their debts than to the more complex financial problems of the 1990s, which typically involve breakdowns in the financial system.

Tobin taxes

There are a number of different motives for consideration of a Tobin tax. They may broadly be classed as macroeconomic, microeconomic and revenue motives.

The main macroeconomic motive for considering a Tobin tax is the belief that the operations of financial markets unduly constrain the capacity of governments to undertake macroeconomic policy and represent a source of macroeconomic instability. One concern is that financial markets place excessive weight on inflation as a policy objective. For the majority of financial instruments (stocks and instruments based on stock prices being the major exception), profitability depends either on the actual rate of inflation or on the rate of inflation relative to that in other countries. To the extent that financial markets are able to direct government policy, they are likely to impose a deflationary bias. A second concern is that the short-term power of financial markets may result in the breakdown of exchange-rate arrangements such as the ERM even where these are sustainable in the long term. By reducing the volume of market transactions, it is hoped to prevent self-fulfilling speculative attacks.

There are also microeconomic reasons for considering a Tobin tax. The first is the concern that the activities of financial markets appear to increase the risk faced by firms and individuals engaged in economic activity, for example, by increasing the volatility of exchange rates. Second, it is widely perceived that the resources consumed in financial markets represent a loss to the economy and that the rewards earned by market participants are excessive in relation to the economic benefits they generate. Third, there is concern that prudential regulation of financial institutions may be undermined by the availability of risky, large-scale and hard-to-monitor financial instruments. This concern has been heightened by a number of recent financial collapses involving derivatives. A more general concern is that the control exercised by markets over macroeconomic policy may be extended to microeconomic and social policy, 'punishing' governments that pursue, for example, redistributive taxation and welfare policies. Again, it is hoped that a Tobin tax would reduce the power of financial markets.

Finally, a Tobin tax is attractive considered simply as a potential source of revenue for governments and, possibly, international institutions such as the United Nations. Various estimates suggest that the volume of financial transactions is between 10 and 100 times that of real transactions. As a first approximation, this implies that a Tobin tax imposed by all countries could raise revenue equal to between 0.4 per cent and 4 per cent of global income.

The latter value is certainly too high. The total resources engaged in the financial sector amount to about 6 per cent of gross domestic product (GDP) in developed countries, and much of this is in the retail sector (banking, insurance and real estate services for households and small business). Hence, it is implausible that a Tobin tax could raise an amount equivalent to 4 per cent of GDP. Moreover, the volume of financial transactions would shrink if the tax were imposed (this is, of course, a

desired outcome). However, there is nothing inconceivable about a revenue yield of between 0.2 and 1 per cent of GDP.

The design of taxes on international financial transactions will be influenced by the relative weight attached to macro, micro and revenue objectives. Some advocates of restrictions on capital flows are primarily concerned with macroeconomic policy and particularly with episodes such as the crisis of 1992-93 which led to the partial breakdown of the European Monetary System. They are thus led to favour a deposit requirement over a transactions tax. A deposit requirement would impose a relatively high effective tax on a relatively narrow range of transactions and would bite most severely in periods where exchange rate alignments were under pressure, resulting in a divergence between domestic and international interest rates. By contrast, microeconomic and revenue concerns imply support for a broadly based tax on financial transactions, levied at relatively low rates. In particular, the attempt to distinguish between domestic and international transactions would not be crucial.

The most obvious objection to a transactions tax is that the tax could be avoided/evaded either by substitution of exempt for taxable transactions or by shifting transactions to a financial centre that does not levy the tax. In particular, it is argued that unless a tax is imposed universally it would be nullified by such a shift in transactions. This claim appears premature. After all, it is, in principle possible to completely avoid income tax by making all income-generating contracts in jurisdictions that levy no income tax (tax havens) and considerable tax is in practice avoided in this fashion. Nevertheless, countries do succeed in levying income taxes (at widely divergent rates) on their inhabitants.

Moreover, problems such as those of the hedge funds can be fixed only by imposing rigid separation between financial institutions that are regulated and protected and those that are unregulated and unprotected. The standard objection to a Tobin tax has been that it would simply drive speculators offshore. However, in the context of an internationally supported system of prudential regulation, this would be an advantage. Countries could choose to operate outside the Tobin tax net and the system of prudential regulation in the knowledge that they would not have access to the International Monetary Fund if things went wrong. Financial institutions could choose to base themselves in countries operating outside the Tobin tax regime, but would be unable to borrow from central banks or the institutions operating within their prudential control.

On the other hand, arguments concerning the possibility of substitution of exempt for taxable transactions appear well-founded. It would appear that the only feasible approach is to tax all financial transactions, domestic and international, at a common rate. Many countries, including Australia, already tax a range of 'retail' financial transactions (for example, bank debits and credits, mortgages) often at rates higher than those envisaged for a tax on international transactions.

Whatever the arguments in its favour, there seems little likelihood that a Tobin tax will be adopted in the near future. It therefore seems appropriate to focus attention on other instruments, such as deposit requirements, that can be implemented unilaterally by individual countries.

Concluding comments

Debate about inequality and changing patterns of resource distribution has inevitably focused on the concept of globalization, which has been central to the international policy debate since the early 1990s. However, the concept of globalization obscures as much as it reveals. Globalization is not an exogenous technological shock, forcing governments to adopt neoliberal policies of market-oriented reform, and generating greater inequality in labour market outcomes. Rather, the breakdown of controls on international capital markets is the international manifestation of a broader process in which the institutions of the post-war long boom have partially, but not completely, failed to deal the consequences of the declining effectiveness of Keynesian macroeconomic policies. The response to this failure has been the adoption of neoliberal policies, both domestically and internationally.

Although the fundamental concept of inequality is straightforward, the technical difficulties relating to the measurement of inequality are immense. While indexes can easily be chosen to 'prove' that inequality has increased, or decreased, over recent years, the best available measures suggest that outcomes have been mixed, with increasing inequality at the extremes of the global income distribution, being offset by strong income growth in countries such as China and India. It follows that no unambiguous answer can be given to the question 'Has globalization reduced or increased inequality', and none should be expected.

Changes in the pattern of resource distribution have been similarly complex. Although trade has grown faster than world income, most of the growth has occurred within trading blocs such as the EU and NAFTA. International flows of capital, after rising rapidly in the early 1990s have been declining since the series of financial crises that began in the late 1990s. These developments cast grave doubt on simplistic neoliberal accounts of globalization.

Neither a wholesale embrace of the neoliberal conception of globalization nor an outright rejection of the processes leading to increased international integration makes sense. What is needed is a co-operative, internationalist approach to the resolution of the world's common problems and, in particular, the achievement of reductions in poverty and inequality.

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