SECTION A

THE GLOBAL POLITICAL AND ECONOMIC ARCHITECTURE

A1 | ECONOMIC CRISES AND SYSTEMIC FAILURE: WHY WE NEED TO RETHINK THE GLOBAL ECONOMY

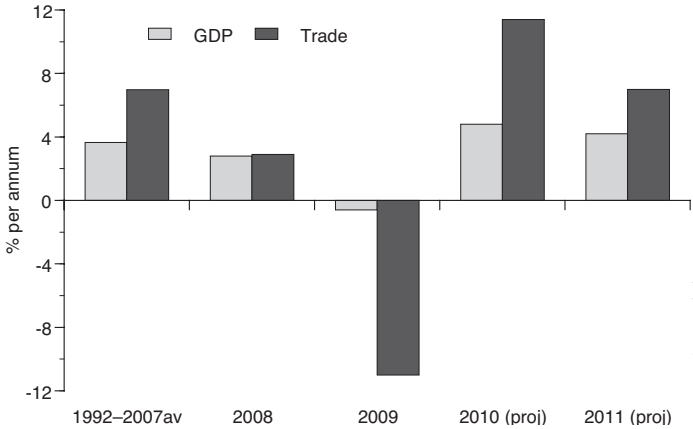
In recent years, the global economy has suffered three acute economic crises – a fuel crisis, a food crisis, and a financial crisis. We might think of these as the three F's. At the same time, we face two longer-term 'slow-burn' crises, those of development and climate change. Taken together, these crises clearly indicate not merely a succession of unfortunate accidents, but also a broader systemic failure, and signal the need for a fundamental change in the nature of the global economy and of economics itself.

Crises and connections

The three F's: the food, fuel, and financial crises Since 2007, the world has been suffering the most serious *financial crisis* since the Great Depression of the 1930s. As of October 2010, bank write-downs as a result of the crisis were estimated at US$2,200 billion.[1] This is broadly equivalent in purchasing-power terms to the annual income of the poorer *half* of the world population.[2] World trade, having grown at 7 per cent pa between 1992 and 2007, slowed dramatically in 2009 and fell by 11 per cent in 2009, to a fifth less than it would otherwise have been. And even if global economic growth recovers in line with the International Monetary Fund's (IMF) latest projections – and there are very large downside risks to this happening – the overall loss of production between 2008 and 2015 owing to the slowdown in growth from the average 1992–2007 rate will be in the order of US$13,000 billion (at 2010 prices).[3] This amounts to nearly US$2,000 for every man, woman, and child on the planet. (See Chart A1.1.)

The *fuel crisis* saw energy prices rise to historically unprecedented levels. The price of oil more than doubled between 1998 and 2000. After stabilising until 2003, it nearly doubled again between 2002 and 2005, and again between 2005 and 2008. At its July 2008 peak of US$133 per barrel, the price was 94 per cent higher than it had been a year previously, and ten times the 1998 average. Other fuel prices followed a similar trend. Even in the wake of the most serious global financial crisis since the 1930s, fuel prices are higher today than in any year except 2008, and more than four times their average level in the 1990s.[4] (See Chart A1.2.)

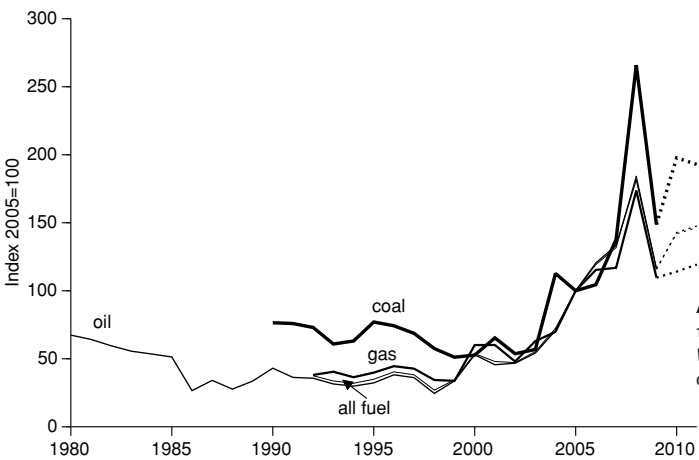
At the same time, rapidly increasing prices of basic foods triggered a *food crisis*. Overall, cereal prices increased by 123 per cent between 2005 and 2008, having already increased by 27 per cent over the previous five years. Rice, an



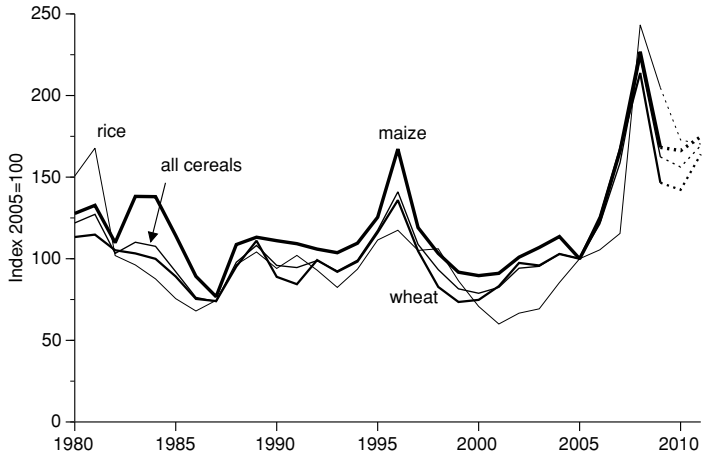
A1.1 World real GDP and trade growth, 1992–2011 (*source:* IMF. *World Economic Outlook* database, October 2010)

essential staple across much of the developing world, was particularly affected, the price increasing more than fourfold between 2001 and 2008. The price of maize, another critically important staple, increased by 127 per cent between 2005 and 2008. While prices have fallen back from their peaks, they again remain far above their pre-crisis levels. In 2010, rice, maize, and wheat prices remained at their highest levels for at least 30 years, and overall cereal prices were double their level ten years before.[5] (See Chart A1.3.) The UN Food and Agricultural Organisation's food price index reached a new historic high level every month from July 2010 to January 2011.[6]

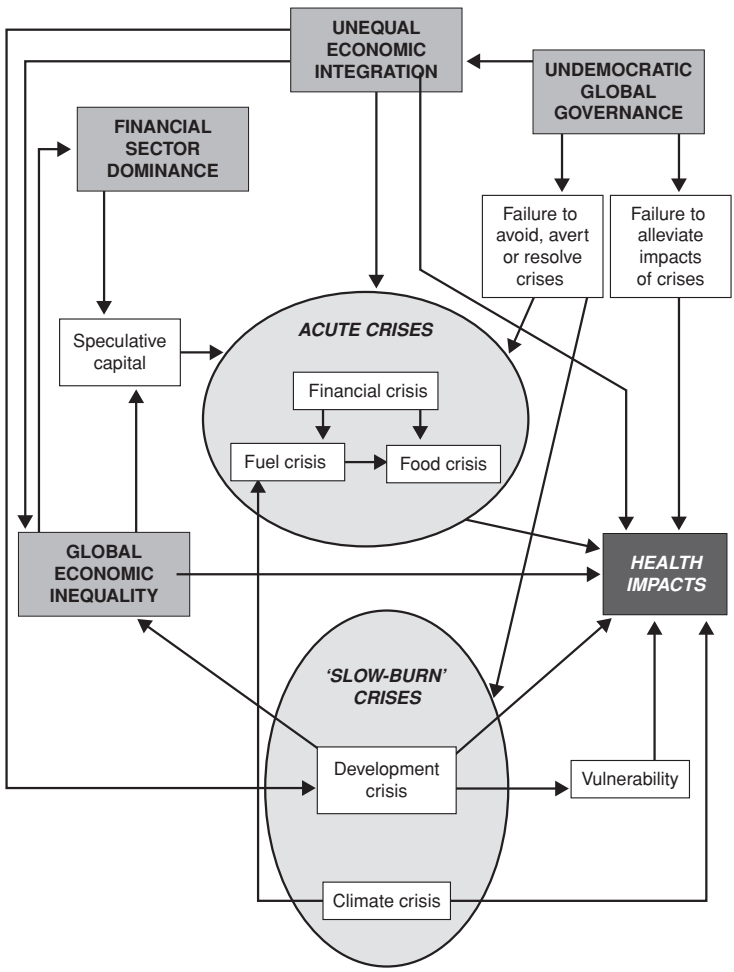
These three acute crises are both closely interrelated and linked to the two longer-term crises discussed later. (See Chart A1.4.) Rapidly increasing fuel prices contributed to increasing food prices, both by encouraging a shift to biofuels in the United States and the European Union (EU), and by increasing prices of nitrogen-based fertilisers. However, a stronger factor was the vast increase in speculative investment in commodity markets, with holdings of



A1.2 World fuel prices, 1980-2010 (*source*: IMF. *World Economic Outlook* database, October 2010)



A1.3 World cereal prices, 1980-2010 (*source*: IMF. *World Economic Outlook* database, October 2010)



A1.4 Linkages between crises and root causes

commodity index funds rising from US$13 billion to US$317 billion between 2003 and 2008.[7] Such investment, particularly large-scale 'momentum-based' speculation that relies on prices continuing to move in the same direction, played a key role in driving up both food and fuel prices, greatly magnifying price movements and fuelling the development of speculative bubbles. (We discuss the dynamics of the food crisis, including the role of speculative finance, in detail in Chapter C1.)

The central role of speculative investment is clearly demonstrated by the complete contradiction between price movements since 2007 and market fundamentals. As a recent World Bank study of the 2006–08 commodity price boom observes:

> Between the second half of 2007 and the first half of 2008[,] production of petroleum increased from 85.8 million barrels per day (mb/d) to 86.8 mb/d. Consumption fell from 86.5 mb/d to 86.3 mb/d. Prices should have fallen. In December 2007, crude oil averaged US$90/barrel while in June 2008 it averaged US$132/barrel, almost 50% up. Recent figures on spare capacity give an equally perplexing picture. During 2009, OPEC spare capacity stood at 6.3 mb/d while petroleum prices averaged $62/barrel. However, similar capacity levels during the early 2000s were associated with $20/barrel. Stocks of key food commodities are 20% higher in 2009/10 compared to 2007/08; yet the nominal food price index averaged 23% higher in December 2009 compared to a year ago, rather surprising given that an often cited reason for the food price spike of 2008 was low inventories.[8]

According to the UN Special Rapporteur on the Right to Food:

> In none of these markets [for oil and gold, as well as food commodities] was there any restriction of supply or expansion of demand even remotely sufficient to explain the full extent of price increases … *The 2008 food price crisis arose because a deeply flawed global financial system exacerbated the impacts of supply and demand movements.*[9]

The role of speculative investment in the financial crisis is still more apparent. The herd-like behaviour of speculative investors created a classic speculative bubble in sub-prime mortgages (and poorly understood derivatives based on them), giving rise to one of the most spectacular boom-and-bust cycles in economic history.

The financial crisis also played a major role in diverting speculative investment into both the energy and food markets, as confidence in traditional investment instruments evaporated and investors desperately sought safe havens for their assets.

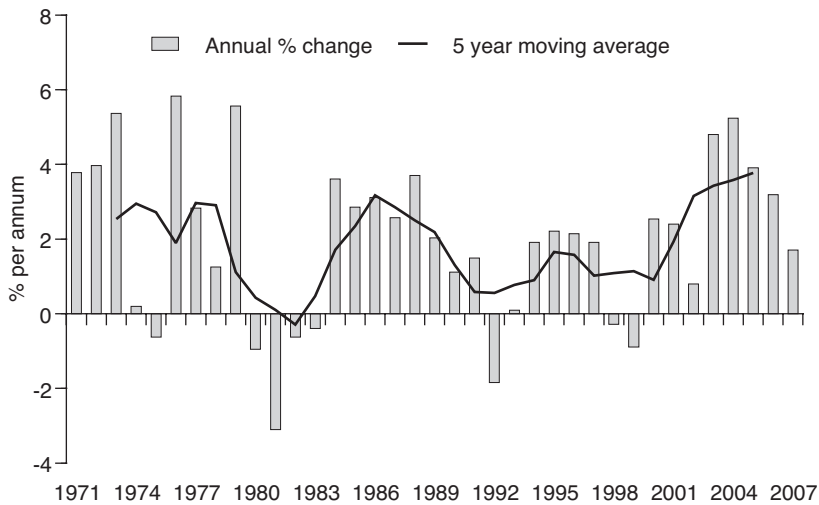
> As each bubble burst, these large institutional investors moved into other markets, each traditionally considered more stable than the last … [I]t was

thought that markets for food and oil could not possibly dry up: people may lose interest in asset-backed securitisation, but they will always have to eat.[10]

The 'slow-burn' crises: climate change and the crisis of development These three acute crises come on top of, and are again interconnected with, two 'slow-burn' crises. The first is that of *climate change*. Atmospheric concentrations of carbon dioxide and other greenhouse gases, largely driven by emissions from production and domestic energy consumption, have already reached a level at which they raise the global average temperatures by around 1° centigrade from pre-industrial levels. Continuing emissions will increase concentrations still further. This fact has been widely recognised for about some 20 years, and generally been accepted by the scientific community for a decade.

However, not only did emissions continue to rise until the financial crisis, but they also increased at an accelerating rate until around 2004. (See Chart A1.5.) In the continued absence of effective measures to reduce emissions relative to total production and consumption, a renewal of economic growth would drive yet further increases, and the upward trend is expected to resume (at more than 3 per cent pa) in 2010.[11] Even the earlier target of limiting the global temperature rise to 2° centigrade now looks increasingly beyond reach.

The effect, which is already being seen, is not simply a generalised rise in temperatures, but also an increase in the frequency of extremes of (high and low) temperatures and rainfall, and of storms, and (over the longer term) rising sea levels as the polar ice-caps melt. Consequences include floods, inundation



A1.5 Growth of global fossil fuel CO2 emissions (% pa) (*source:* Boden, T., G. Marland & T. Boden (2010). *Global CO_2 emissions from fossil-fuel burning, cement manufacture, and gas flaring, 1751–2007*. Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, Oakridge, Tennessee, 8 June 2010. cdiac.ornl.gov/ftp/ndp030/global.1751_2007.ems, accessed 11 February 2011).

1 Construction boom in China (Chongging) (David Legge)

and sea surges, storm damage, and serious losses of production, particularly in agriculture. For geographical reasons, many of the poorest countries are among those worst affected. This vulnerability is increased by their economic structures (notably dependence on the most climate-sensitive sectors such as agriculture and in some cases tourism). They have the least resources to protect themselves through 'climate-proofing' and by responding appropriately to extreme weather events. Their low initial incomes greatly exacerbate the impacts on the population. (We discuss the state of play of the climate change negotiations in Chapter C5.)

The second 'slow-burn' crisis is the crisis of development across much of the developing world. While some 'emerging market' economies, such as China and Brazil, have achieved high rates of growth contributing significantly to development, most of the poorer and least developed countries continue to languish at income levels that do not provide a minimally acceptable standard of living for their people or the public resources needed for infrastructure, public goods, or effective administration.[12]

While this is most conspicuous across most of sub-Saharan Africa, a similar situation prevails in other low-income countries such as Nepal, Haiti, and Laos. The result is an increasing polarisation between (mostly) larger and more powerful 'emerging market' economies and a large number of (mostly) smaller and poorer 'submerging markets', struggling to keep their heads above the water as the rising tide of global economic growth conspicuously fails to lift all boats.

Tracing the connections These 'slow-burn' crises have also contributed to the more immediate 'three F's' crises. Most obviously, a major part of the beginning of the food crisis lay in a relatively small shift towards the use of biofuels in the United States and the EU as a means of reducing carbon emissions in these regions (although the overall environmental impact of biofuels in their current form, and even their net effect on reducing carbon emissions, is open to question).

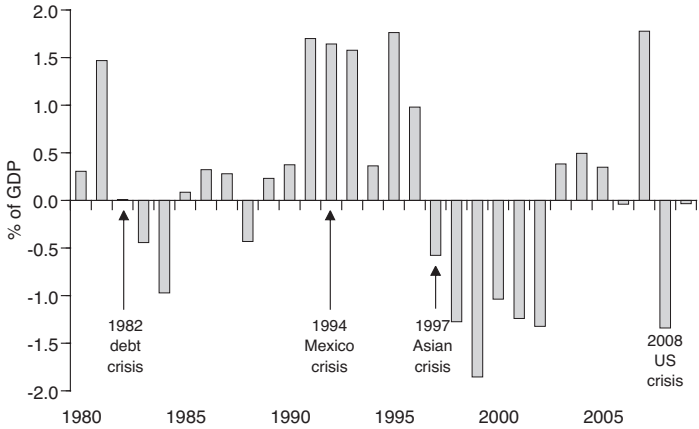
While it is difficult to draw definitive conclusions, the central role of climatic conditions generally in agricultural commodity markets (through effects on global supply) suggests that climate change may have contributed to the food crisis. Australia, a major cereal producer, suffered three major droughts between 2002 and 2008, a highly exceptional weather pattern which may well be attributable to climate change.[13] A recent study also suggests a significantly negative net effect of climate-change-related temperature increases on rice yields in some locations in Asia.[14]

Equally, the failure of the major economies to reduce their reliance on fossil fuels, an essential step to tackle climate change, means that demand for oil and gas on international markets is much higher than it would have been had consumption been reduced in line with the constraints on carbon emissions. Had demand fallen in line with agreed global targets on carbon emissions, it is extremely unlikely that the fuel crisis would have occurred.

The primary effect of the development crisis has been to increase the vulnerability of the poorest developing countries, particularly to the food and fuel crises. Had they been successful in developing more robust and diversified economies, the impact of these crises would have been much more limited.[15] Much the same applies to their economic vulnerability, and to their capacity for adaptation, to climate change.

Conversely, the development path by which the 'emerging market' economies have succeeded in escaping the trap of underdevelopment both increased their exposure to the financial crisis (although it may have reduced the impact of the food and fuel crises overall) and arguably contributed to increasing global carbon emissions, and hence ushering in climate change. (It should, however, be emphasised that it is the Northern economies that are overwhelmingly responsible for both the current levels of global carbon emissions and still more for the cumulative historical emissions that have given rise to current atmospheric concentrations of carbon emissions.)[16]

A major factor underlying the economic success of many 'emerging market' countries, most conspicuously China, has been the development of low-cost manufacturing capacity for export, primarily to the North. This has driven down prices, increasing overall demand for manufactured goods, and hence driving overall industrial production, while also shifting the balance of industrial production from the North towards the 'emerging market' economies, where environmental standards (including emissions standards) and their enforcement



A1.6 Net private financial flows (excluding direct investment), developing countries, 1980-2009 (*source:* IMF. *World Economic Outlook* database, October 2010)

are typically weaker. While there have been substantial developmental benefits, this implies an unambiguous increase in global carbon emissions.

This process may also further complicate efforts to deal with climate change at the global level in three ways. First, the capacity for enforcement of emissions reduction is likely to be weaker in the 'emerging market' economies than in the North. Second, there is a clear and widely acknowledged need to protect developing countries from the economic impacts of emissions reduction. The relocation of production in 'emerging market' economies thus simultaneously limits the potential for reduction if this need is to be met. Third, it gives rise to a potentially serious conflict in the negotiation process, as some Northern countries seek to blame the rapid growth of 'emerging market' economies for climate change, and to claim credit for the emissions reduction associated with the reduction in their own manufacturing production.

In reality, however, this last position is at best highly questionable. While production may have been relocated in the South, it is still largely meeting Northern demand, and in many cases (most notably Mexico), it represents in large part a relocation of the operations of Northern-based transnational companies, so that the profits are primarily attributable to the North, limiting the developmental benefits in the South. Moreover, while carbon *emissions* from Northern production may have been reduced, the carbon *footprint* of Northern consumption has been increased, both by higher consumption of (cheaper) manufactured goods and by the need to transport these goods from Southern countries.

A second key feature of the development of the 'emerging market' economies has been a substantial reliance on commercial capital, including, in most cases, speculative investment in shares, bonds, and other assets (e.g. real estate and other financial assets). This factor played a key role in the earlier (1997) financial crisis, which started in Thailand and spread rapidly through a process of contagion to affect most other 'emerging market' economies, with

the notable exceptions of China, Malaysia, and Chile, which had either limited their reliance on such flows or had taken steps to control them (contrary to the prevailing views of the time).

The substantial volume of accumulated speculative capital from abroad in these countries greatly increased their exposure to the financial crisis. As the crisis hit, there was a 'flight to safety' on the part of investors, and investments in most 'emerging market' economies, because of their greater perceived vulnerability (even relative to the United States, whose financial markets lay at the root of the crisis), led to major capital outflows. As in the 1982 debt crisis and the 1997 Asian crisis, the result was a major reversal of net private capital flows. (See Chart A1.6)

From multiple crises to systemic failure

As noted above, the fuel, food, and financial crises had an important common factor in the role of speculative capital. While there are also linkages with (and between) the climate change and development crises, these do not amount to a single, common, direct cause or to a set of causes. To understand this, we need to go back another step to the more fundamental roots of the crises.

Here we highlight four common, and closely interrelated, roots of the crises:

- global economic inequality;
- the dominant role of the financial sector;
- unequal global economic integration; and
- ineffective and undemocratic global governance.

Global economic inequality The twin 'slow-burn' crises of *development* and *climate change* epitomise global economic inequality. On the one hand, we have a crisis of climate change, which is a classic crisis of over-consumption. Climate change is driven by the high and increasing levels of emissions of carbon dioxide and other greenhouse gases associated with high levels of overall consumption and the production required to satisfy this demand. On the other hand, the development crisis is a classic crisis of under-consumption. A substantial majority of humanity does not have sufficient income to meet what might, by any reasonable standard, be considered to be their minimal consumption needs.

The coexistence of extremely wide gaps in consumption in different parts of the world can only be explained by inequality: that the excessive consumption of the world's finite resources by the rich minority is not merely beyond an environmentally sustainable level, but is also so far beyond this as to outweigh the under-consumption by the poor majority by a considerable margin.

The scale of global inequality is little short of staggering. As measured by the Gini coefficient, the global distribution of income is substantially more unequal than that in the most unequal country in the world (Namibia).[17]

2 Sign on a building in the US, November 2008 (© Karin Hildebrand Lau|Dreamstime.com)

The ratio between the incomes of the richest 20 per cent and those of the poorest 20 per cent is twice as much in the most unequal developed country (the United States) and is double that in the most equal country (Finland).[18] The considerable rise in inequality in the United States between 1976 and 2007 (see below) increased this ratio by about half. Globally, the ratio is nine times greater. Put another way, the difference between this ratio globally and the ratio in the most unequal developed country is seven times the difference between the most equal and the most unequal. And the difference between the global ratio and the US ratio is 14 times as much as the increase in the ratio over a period of 31 years characterised by dramatically increasing inequality in the United States.

The global distribution of wealth is yet more unequal. While those in extreme poverty have little left over after meeting their basic needs, the rich – and especially the ultra-rich – are able to accumulate vast fortunes. In 2000, the richest 10 per cent of the world's population was estimated to own more than 85 per cent of the world's total wealth. The poorer half of the world population owned only 1.1 per cent.[19]

This inequality underlies the considerable and rapidly growing volume of *speculative capital*, which in turn was a major factor underlying the fuel, food, and financial crises. Coupled with the growing role of the financial sector (see below), investment has been increasingly divorced from production. The lack of spending power of the majority of humanity provides limited incentives to invest in production to meet their needs, while income becomes increasingly

concentrated among the rich, who increase their consumption relatively little as their incomes increase.

As the volume of private capital available for financial investment outstrips the availability of profitable production opportunities, so it is driven into speculative investment in financial instruments, and this is compounded by increasing institutional investment as a result of the shift towards reliance on private rather than social provision, as funds are increasingly channelled into pension funds and health insurance.

As speculative investment increases, the prices of financial instruments and other speculative investments (e.g. real estate, art works, etc.) are driven up, providing artificially high rates of return. And these high rates of return simultaneously increase the profitability of speculative rather than productive investment, and increase the wealth of those at the top of the pyramid (in global terms) still further. This also generates still more resources for speculative investment.

One of the key causes of the rise in food prices, which (vastly compounded by speculation) triggered the *food crisis*, was also fundamentally a reflection of global inequality. Even with increased public subsidies, the shift to biofuels in the United States and the EU was only feasible because people with cars in the developed world can afford to pay far more to drive a few more miles than poor people in the developing world can afford to meet their most basic nutritional needs. As discussed later, this is part of a broader issue that represents a fundamental challenge to orthodox economics.

The roots of the *financial crisis* are also firmly grounded in inequality, though primarily inequality within the United States, the most unequal country in the developed world, rather than globally.[20, 21] The benefits of growth in the United States in recent decades have been extremely concentrated, giving rise to a growing polarisation between a very large underclass and a very small minority of very wealthy individuals. Between 1976 and 2007, the incomes of the richest 1 per cent grew more than seven times faster than the incomes of the remaining 99 per cent, allowing the former to accrue 58 per cent of the additional income generated by growth over these 31 years. In the period immediately before the crisis (2002–07), their share of the benefits of growth was still higher (65 per cent).[22] Distribution of the benefits of growth among the non-rich 99 per cent of the population was also highly unequal, so that the poorest 20 per cent of the population received only 1.2 per cent of the benefits of growth between 1976 and 2007, and the next 20 per cent received only 4.3 per cent, their average incomes rising by only 10.6 per cent and 15.2 per cent respectively over 31 years.[23]

The accumulation of ever more income, far beyond their consumption needs, in the hands of a few gave rise to a rapidly growing pool of surplus funds looking for income-earning opportunities. And this has been further magnified by financial deregulation, allowing wealth to be leveraged (e.g. directly

3 Anti-WTO Protests in Hong Kong (© Mike Kwok|Dreamstime.com)

by borrowing money for speculative investment, or indirectly through margin trading), and by very low interest rates since 2001. At the same time, the very limited increase in consumption associated with glacial income growth among those at the lower end of the income distribution (who might be expected to spend extra income) has seriously limited productive investment opportunities. The result is a very large and rapidly growing pool of income-seeking non-productive (i.e. speculative) investment opportunities.

At the other end of the scale, about 40 per cent of the population earned very low and stagnating incomes, falling ever further behind the other 60 per cent of the population, in a very materialistic society where income and wealth are fundamental determinants of social status and self-worth. They had historically been largely excluded from the commercial and financial system, for the simple reason that their low and stagnant incomes meant that they had very low creditworthiness and very limited savings.

It was the commercial opportunity created by this extreme and growing inequality, together with deregulation of the financial system, that set the scene for the financial crisis.

> When – as appears to have happened in the run up to both [the 1929 and 2007] crises – the rich lend a large part of their added income to the poor and [the] middle class, and when income inequality grows for several decades, debt-to-income ratios increase sufficiently to raise the risk of a major crisis.[24]

The dominant role of finance The central role of speculative capital in the multiple crises, as discussed above, largely reflects the rapid growth, global integration, and deregulation of the financial sector. While the financial system played a major role in the food and fuel crises, its responsibility (and its irresponsibility) is clearest and most direct in the case of the financial crisis.

Following deregulation, the US banking system was quick to exploit the market opportunity created by extreme and increasing inequality (see above), doubling the size of the financial sector relative to the economy as a whole from 4 per cent to 8 per cent between 1981 and 2007.[25] Increasingly, in the lead-up to the crisis, banks offered mortgages and other loans to 'sub-prime' (i.e. non-creditworthy) borrowers, at very high interest rates to offset the very considerable risks, raising the money to do so by bundling loans together into totally opaque financial products, which they sold on to (mostly institutional) investors. By obscuring the true extent of the risks, they were able to limit artificially the cost of the funds, which were also limited by low or negative real low interest rates, following major reductions to counter the economic effects of 9/11 and the bursting of the 'dot.com' bubble.

In retrospect, it seems clear that this process was inherently unsustainable – and this should have been apparent at the time. While the debt-to-income ratio of the richest 5 per cent of households fell from 80 per cent to 65 per cent between 1983 and 2007, for the remaining 95 per cent of the population (the poorer and the less creditworthy) it more than doubled from 60 per cent to 140 per cent, closely reflecting developments in the period before the 1929 crisis.[26]

Despite this evident instability, however, the process proceeded for (at least) four reasons.

- First, like most financial crises, it rested on a myth, that the cost of lending could be reduced by financial manipulation to spread risk across many lenders. While this may offer some benefits, the cost of lending is reduced much more by concealing the true level of risk from the ultimate providers of funds than by spreading the risks among them.
- Second, commercial financial companies are in practice largely driven by the desire to earn short-term returns, with more limited attention being paid to long-terms risks. This is partly a consequence of the financial imperatives of the market, but partly also the result of the incentives offered to individual traders. If other traders are generating very high returns in financial products that are generally considered (or at least assumed) to bear an acceptable level of risk, each individual will face considerable pressure to match these returns, and his or her career progress will be seriously compromised by failure to do so.
- Third, the combination of deregulation with the dramatic increase in the possible complexity of the financial crisis opened up a vast gap between

what financial institutions were doing and the ability of the regulatory authorities to control, or even to understand, it.
- Fourth, the US authorities – apart from a strong pro-commercial and anti-regulatory bias – had little incentive to discourage lending to those on low incomes. To intervene to deprive a very large proportion of the population of long-awaited access to credit markets would have been politically suicidal, at least in the short term, and electoral cycles make political decision-making an inherently short-term endeavour.

This last point reflects the importance of political as well as economic inequality: the non-rich majority of the US population had sufficient electoral influence to force the government to pursue lax monetary policies that allowed them to maintain their consumption levels, but they did not have the effective power to force policies that would limit the increase in inequality in the face of opposition from a small but powerful rich minority.

This process was not unlike the lead-up to the 1980s debt crisis experienced by developing countries. In the 1970s, much higher world oil prices resulted in considerable surpluses in the major oil-exporting countries, while other, much poorer, developing countries faced much higher import bills. The international banking system, with official encouragement, 'recycled' the surpluses, taking them as deposits from the oil exporters and lending them at commercial rates (with a substantial mark-up) to the developing countries. Through most of the 1970s, interest rates were lower than inflation rates, and funds were plentiful, so borrowers could refinance interest payments from new loans without their debt positions becoming unsustainable. But in 1979, real interest rates rose sharply (as the developed countries responded very differently to a second oil price shock). The debts of developing countries quickly became unsustainable, and each default further undermined confidence, making creditors more reluctant to lend, and thus triggering further defaults. By 1983, virtually all of Latin America and sub-Saharan Africa (and a substantial part of Asia and Eastern Europe) faced acute debt problems.

The growing role of the financial system has also contributed to the development crisis. Commercial financial flows are, by definition, skewed towards those countries and purposes or areas where financial returns to the funders are highest relative to the (perceived) risk, that is, in general, to countries that are already better off and to investments that generate private rather than social returns. Commercial flows to the poorest countries, where capital is the most scarce, are very limited, and where these flows have occurred on a substantial scale (e.g. the recycling of oil surpluses in the 1970s), they have come at a high financial cost, ultimately proving unsustainable and triggering crises with very high economic and social costs.

This reflects a more fundamental inability of commercial finance and capital markets to narrow the gaps in income and wealth, particularly in the

4 Police stop ant-G8 protestors in Rome, May 2009 (© Marco Manieri|Dreamstime.com)

context of extreme inequality such as that which characterises the global (and most national) economies. An associated effect is the tendency of commercial finance, at least in its current form, to increase inequality rather than reducing it, both globally and nationally. (These issues are discussed further below.)

At the same time, the perception that developing countries have access to commercial finance (even though those in the greatest need do not) has arguably weakened political pressure for greater aid flows, and efforts to shift financing from official to commercial sources have contributed to the privatisation and commercialisation of public services, undermining their social benefits. Poorer developing countries are thus faced with a very narrow choice – that between very limited, expensive, and potentially destructive commercial financing, on the one hand, and official financing that is driven by donors' agendas (including direct or indirect policy conditionality), whose supply is often erratic, unreliable, and unpredictable, on the other hand.[27]

Commercial finance is also arguably a major contributory factor to the climate crisis. The logic of financial markets rests on maximising rates of return to capital, which (as well as lowering returns to other factors of production, notably labour) implies the exponential growth of output at the maximum possible rate. Climate change and other environmental problems arise because of the tension between exponentially growing production and consumption, on the one hand, and the associated use of natural resources and the production of waste, and the inherently finite eco-space of natural resources and environmental sinks within which it must, by definition, be contained, on the other hand. The result is the so-called lily pond effect.

For those 'emerging market' economies that have been successful in securing access to commercial financial markets (and particularly speculative capital), developmental benefits have probably been relatively limited in view of high domestic savings rates in most cases, and have been offset both by the financial crises triggered by these flows themselves (particularly following the Asian crisis of 1997) and by the knock-on effects of the US financial crisis. Had these countries been less integrated into global financial markets, their exposure to the crisis would have been much more limited.

More generally, there has been an enormous increase in the scale of the financial system. In the UK, for example, financial intermediation accounted for 8.3 per cent of total output in the economy in 2007 (7.7 per cent excluding net exports), of which the profits of financial corporations represented nearly half. This is more than half as much again as in 2001 (5.3 per cent), as the sector grew more than three times as fast as the economy as a whole in this period (6.1 per cent pa compared with 1.9 per cent pa). (As noted above, this is similar to the pattern followed by the US financial sector.) It is also substantially greater than either the education sector (5.9 per cent) or the health and social work sector (7.1 per cent).[28] Increasingly, the financial tail is wagging the economic and social (and political) dog.

The role of the financial system is essentially one of intermediation: facilitating the allocation of financial resources from those who have more capital than they need at a particular time to those who want additional resources. Even if the system functioned perfectly, allocating resources to those uses that provided the greatest benefit to society as a whole, some 8 per cent of the total value of production every year, would be a high price to pay for the intermediation of a single factor of production (particularly when more than 11 per cent is accounted for by wholesale and retail trading, nearly three times as much as transportation and storage). This means that for every US$100 of output, nearly US$20 goes to allocating capital between uses and getting products through various intermediaries, from producers to consumers.

In reality, however, the financial system is profoundly *dys*functional, triggering economic crises, increasing inequality, and generating potentially disastrous environmental impacts, while conspicuously failing to meet social goals such as poverty eradication, health for all, access to education, and the fulfilment of basic needs for the majority of humanity. It is at least arguable that it is doing more harm than good. We are not merely paying an extortionate price, but also paying an extortionate price for a system which is at best providing very limited net benefit.

This indicates an urgent need not only for fundamental *reform* of the financial system, but also for a much more radical *transformation* into a system that will serve societal goals and not undermine them.

Unequal and asymmetrical global economic integration The exposure of de-

veloping countries to the various crises (especially the financial crisis) was increased by their integration, to varying degrees, into the global economy through commercial globalisation. A financial crisis that arose from market abuse and a failure of regulation in the United States spread rapidly to other developed economies through the highly integrated global financial market, as European financial institutions, relying on the integrity of the US financial system, purchased large volumes of toxic assets, thereby endangering their own financial position. (By spreading the risk, this also greatly reduced the impact on the US economy, so that the proceeds of market abuse and regulatory failure were retained, while the costs were effectively exported.)

The increased exposure, particularly of 'emerging market' economies, to global financial markets made them vulnerable to the shockwaves arising from the resulting financial panic. These shockwaves emanated primarily from the opening up of national financial systems, which was actively promoted under IMF and World Bank structural adjustment programmes and the neoliberal economic model. Similarly, the exposure of developing countries to the food crisis was increased as a result of trade liberalisation and the promotion of export agriculture, thereby increasing dependency on imports of basic foods.

However, the problem is less one of integration as such than it is a problem of the asymmetrical and highly unequal nature of the integration process.

- Financial markets – the market of primary interest to the developed countries and to the rich – have become highly integrated.
- The international 'market' for skilled professionals has become moderately integrated as developed countries have increasingly 'imported' professionals in priority occupations (most notably health and communications professionals) from developing countries.
- However, the factor market of greatest interest for developing countries – that for unskilled labour – has remained almost entirely segmented, at least as between North and South, as developed-country governments face no constraint on the restrictions they can impose on immigration.

The result is the creation of highly favourable conditions for financial capital and for its owners (by definition, the rich); the creation of somewhat more favourable conditions for skilled professionals from the South (or at least those able to migrate), who are on middle incomes by global standards; and the provision of some degree of protection to Northern unskilled workers. However, all this comes at the expense of the poorest – poor people in poor countries who are solely dependent on unskilled labour for their income.

In principle, the greater mobility of the assets of the rich rather than that of the poor could be offset by greater integration of the markets for goods, that is, freer trade. However, this effect has been limited both by the extreme economic inequality between countries (see below) and the equally asymmetric nature of the global trade regime.

Before the Uruguay Round of trade negotiations (which led to the creation of the World Trade Organization) even began, many developing countries had been forced to open their markets under structural adjustment programmes forced on them by the 1980s debt crisis, yet they received no credit for these liberalisation measures in the negotiations.

International trade agreements in the areas of greatest interest to them were strongly skewed in the interests of the developed countries. The WTO Agreement on Agriculture was specifically designed to minimise the obligations of the United States and the EU, while requiring much more of developing countries. The highly protectionist Multi-Fibre Agreement (MFA) governing trade in textiles was phased out over ten years, and was done in such a way that almost no liberalisation was required until the end of the period. Even then, it was not phased out until well after the deadline. The interests of the poorer developing countries would, in any case, have been much better served by an enlarged and more equitable MFA rather than by its abolition, which merely allowed the largest and most successful countries (notably China) and transnational companies to dominate the market.

Conversely, international trade rules increased protection for the trade of the greatest interest to the developed world, the Agreement on Trade-Related Aspects of International Property Rights (TRIPs) providing monopoly rights in global markets to holders of patents and copyright. In addition to greatly increasing the cost of much-needed technologies (including, for example, medical and production technologies), this effectively sealed off a key element of the route to development that had been pursued by the 'emerging market' economies prior to the agreement, and by the developed countries when they were at a similar stage of development.

Throughout the trade negotiation process, the concerns of developing countries have been largely or wholly ignored. There has been no consideration within the WTO process of measures to limit the extreme volatility and chronic decline of prices of primary commodities (agricultural produce and raw materials) on which most of the poorest developing countries are critically dependent. The first step in the current so-called Doha 'development' Round of negotiations was to remove from the agenda the primary concerns of the developing countries, particularly their entitlement under the Marrakech Agreement establishing the WTO to 'special and differential treatment' (which has been limited to somewhat extended implementation periods for requirements identical to those of developed countries), and the obligation under several of the previous agreements to review their impact prior to further negotiations.[29]

Beyond these asymmetries in the coverage of globalisation, there are three fundamental flaws in the nature of the globalisation process that would have serious disadvantages for the poorest developing countries even if it were applied more symmetrically.

- First, it focuses almost exclusively on financial and commercial considera-

tions, leaving social and humanitarian concerns to be dealt with (if at all) through separate, discretionary, and much more limited measures.

- Second, it is based on a blind faith in the benefits of market mechanisms, which, by their nature, favour those who have the greatest market power (rich countries, rich people, and large companies) at the expense of those who have little or none (the poor).
- Third, and most fundamentally, it is based on a competitive rather than a collaborative model, in which countries must compete for (market-driven) financing and export opportunities. This competition favours the strong, and excludes the weak; and the success of the former and the failure of the latter widen the gap between them still further, driving the weakest into a never-ending downward spiral. In this sense, the growing number of failed states is not an unfortunate accident, but an inevitable result of competitive commercial globalisation.[30]

Ineffective and undemocratic global governance The sustained pursuit of an approach to globalisation that is inimical to the interests of the poor majority of humanity is directly attributable to fundamental flaws in the nature of global decision-making. These flaws also explain, to a considerable extent, the failure to prevent the five crises discussed in this chapter, to deal with them effectively, and to avoid unnecessary social and human impacts.

Undemocratic … The developed countries, although a relatively small minority of the world population (14 per cent), exercise almost complete dominance over global decision-making processes, subject only to the relatively limited influence of the larger and more economically powerful developing countries (notably China, India, and Brazil). Smaller and poorer developing countries have virtually no influence.

In the IMF and the World Bank, this dominance is institutionalised through 'economically weighted' voting systems, which give the developed-country governments a majority of the votes, and the United States alone a veto on all major policy decisions. In the WTO, a notionally democratic (one country, one vote) system is subverted by the removal of effective decision-making from the formal institutional framework into a number of processes ('green room' meetings, 'mini-ministerials', and 'confessionals') that have no formal status and are therefore not covered by the WTO's rules. These processes are totally non-transparent, allowing decision-making to be dominated by developed countries through the exertion of various forms of financial, economic, political, and diplomatic pressure.[31] While a few larger and richer 'emerging market' economies (China, India, Brazil, and South Africa) have achieved some influence in recent years, this remains relatively limited, and their interests are very different from those of the smaller and poorer developing countries, which remain almost wholly excluded.

While other decision-making processes – notably in the United Nations and its specialised agencies (other than the IMF and the World Bank) – are more formally democratic, their financial dependency and that of their developing-country members gives the developed countries a considerable measure of control. As the major funders, the developed countries are able to limit the regular budgetary resources allocated to international institutions, keeping them critically dependent on discretionary funding to individual projects and programmes. WHO's regulatory budget funds of US$943.8 million for 2010–11 are enough to finance only one-fifth of its total programmes, leaving 80 per cent dependent on discretionary funding.[32] As the major providers of these funds, the developed-country governments can thus control which issues are dealt with by which institutions (e.g. shifting responsibility for large areas of health from the WHO to the World Bank), in what way, and the resources available for each activity. The implicit or explicit threat of withdrawing or reducing such funding also gives the developed-country governments considerable leverage over the secretariats of these institutions.

Equally, the financial dependency of developing countries on aid, debt relief, and/or trade concessions provides developed countries with considerable leverage over them, both in their own policies and in the positions they take in international decision-making bodies, either by offering benefits or through the explicit or implied threat of withdrawing such benefits. This is most obvious in the case of the WTO. There is also evidence that the United States not only uses its own aid to influence the positions of countries in the UN Security Council,[33] but also exploits its own dominant position in the IMF and the World Bank to skew the lending and/or conditionality of these institutions according to the proposed recipients' positions in international fora.[34, 35, 36]

The developed countries are able to strengthen their position still further through the coordination of their positions and through mechanisms with no formal status in the international system, which they have established and over which they exert effective control, notably the G7, the G8, and (in recent years) the G20. While there are some fora through which developing countries may seek to coordinate their positions (e.g. the G77 and the Like-Minded Group in the WTO), their effectiveness is limited by lack of resources, by the large number of countries involved, their limited influence (requiring a much larger coalition to be built), and by the much greater disparity in their economic interests. The selective inclusion of the most influential developing countries in some of the developed countries' coordination mechanisms (e.g. the G20) may also be seen in part as an attempt to 'divide and rule' the developing countries by undermining their own coordination efforts.

Non-transparent and Unaccountable … In all the major international organisations, such accountability as there is, is to the national government. It is the government that appoints the country's representative to decision-making

bodies, the government that instructs them on the positions they should take and the tactics they should use, and the government that is empowered to remove them should they fail to fulfil their responsibilities. While this is most obviously problematic in the case of undemocratic governments, it also limits accountability in the case of countries with democratic systems.

The accountability of governments, even of democratically elected governments, to their people is often limited, and is shaped by commercial interests (the disproportionate influence of the corporate sector) and financial considerations (reliance on the better-off for contributions to campaign finance and/or party funding). Since electorates typically have limited interest in international decision-making, while the corporate sector has much stronger and more direct interests, particularly in the economic sphere, the government agenda is skewed strongly in favour of social to corporate interests. In the Uruguay Round GATT negotiations, which led to the creation of the WTO, for example, the United States negotiating teams were led by representatives of US-based transnational corporations on a number of issues.[37]

In the IMF and the World Bank, accountability even to most governments is limited. While five major developed countries appoint, and thus effectively control, their own Executive Directors, the other Directors represent constituencies of countries. Once appointed, these Directors are officials of the IMF or the World Bank, and not country representatives,[38] so that even the governments whose votes they control have no effective say in how those votes are used.

Accountability in the economic institutions is further undermined by lack of transparency. In the WTO, the informal fora in which actual negotiations occur, the talks take place behind closed doors, so that only participants are privy to what is said. In the IMF and the World Bank Executive Boards, votes are not cast; rather the Directors say how they would vote if such a vote were held, and the outcome is decided by the Managing Director of the IMF (effectively chosen by the Western European governments) and by the President in the World Bank (effectively appointed by the US government). Since the proceedings of the boards are confidential, this also means that only governments know how their votes were effectively used, allowing them to operate with zero accountability to their electorates for the positions they take.

Antagonistic and Short-termist … Because the global system is driven by governments, its agenda is dictated by the interests of governments, and particularly by the interests of those governments with the greatest power. These interests are, almost by definition, nationalistic in nature – primarily the promotion of national commercial and financial interests, and that of geopolitical and ideological agendas directed towards achieving these and other national goals. This is the basis on which representatives to international organisations are appointed, the task they are set, and the standard to which their governments hold them accountable.

The result is an essentially antagonistic system, in which each country's representative pursues that country's own national interest in opposition to those of others, rather than seeking the greater common good. This combined with a system in which power is strongly weighted towards the better-off, and in which accountability is both limited and skewed, results in a system oriented to the promotion of the interests of the rich and of the corporate sector, constrained only by the (relatively weak) domestic social and environmental constituencies in the developed world.

Responsibility to governments also gives rise to a short-termism that is inimical to the avoidance of future crises and to attempts aimed at dealing effectively with long-term crises such as climate change. The accountability of democratic governments is strongly driven by electoral cycles. Their concern about issues beyond the next election is greatly reduced by the possibility that they will no longer be in office, and their preoccupation with short-term considerations is further increased by worries about the effect that these will have on their prospects of remaining in office. Many undemocratic governments are also preoccupied with their short-term political survival and with the short-term interests of their constituents.

Toothless … Despite all the factors discussed above, some international agreements are reached that, if implemented, would serve the interests of the poor majority of the world's population. These include the Universal Declaration of Human Rights, the Covenant on Economic and Social Rights, the UN Framework Convention on Climate Change, and the Kyoto Protocol. However, implementation is prevented by the absence of any effective enforcement mechanisms, particularly with respect to implementation by developed countries.

Such enforcement mechanisms as are available are essentially financial and economic in nature – for example, the provision of finance and the imposition of financial or trade sanctions. The only international institutions with the resources to provide finance on a significant scale are the IMF and the World Bank, which are effectively controlled by the developed countries (largely because these are the only institutions to which the developed countries have been willing to allocate substantial resources). Only in a few cases in exceptional circumstances (e.g. Iceland, Ireland, and Greece in the current financial crises) is such financing required by developed countries, so its effectiveness as an enforcement mechanism is largely limited to the developing world. Otherwise, financial incentives must come very largely from the developed-country governments themselves, and on a discretionary basis. Thus, the granting of financial rewards is entirely in the hands of the developed countries.

Trade and financial sanctions are likewise discretionary, as there is no mechanism (besides the equally discretionary application of trade or financial sanctions against those who do not impose them) to ensure that they are

observed. While the IMF has the power to impose limited financial sanctions by preventing the enforcement of loan contracts in national courts, the use of this power to enforce debt relief agreements or to allow debt standstills pending crisis resolution was blocked by the developed countries during both the 1980s debt crisis and the post-1997 financial crisis.

The only global agreements that have effective enforcement mechanisms are the WTO Agreements, which are ultimately backed by allowing the imposition of trade sanctions by a complainant against a country that has been found to have damaged the former's interests through non-compliance. This results in a serious asymmetry, effectively giving trade agreements precedence over other agreements, including those directed towards protecting rights or achieving social or environmental goals.

Trade and financial sanctions are also extremely asymmetrical in their effects: the imposition of sanctions by a major developed country would have a considerable effect on a developing country; the imposition of sanctions by a developing country against a developed country would damage the former more than the latter. In the latter context, such sanctions are thus unlikely to be applied, and would be largely ineffective even if they were.

Unreformable … If a national government operated in the same way as the global system, and if individuals within a national government behaved in the same way as the developed-country governments do within the global system, it would be rightly condemned as grossly undemocratic, and would unquestionably qualify as one of the most corrupt in the world. The wholly predictable result would be an increasing concentration of wealth in the hands of a small elite and escalating social and environmental problems – much the same conditions as now characterise the global economy.

If we are to have any chance of resolving the fundamental problems of the global economy highlighted by the five crises discussed in this chapter, it is essential to bring about a radical reform of the global decision-making process in line with generally accepted principles of democracy, accountability, and transparency. However, the skewing of power towards the developed countries blocks the possibility of reform, because they wield enough power to veto any serious attempt at moving towards a more democratic system.

Recent economic crises as systemic crises

Financial crises are by no means new. Prior to the current phase of commercial globalisation, which might be dated from around 1980, the post-industrial era had been punctuated by such crises at (surprisingly regular) 50-year intervals – in the 1830s, the 1880s, the 1930s, and the 1980s. Since 1980, however, their frequency has increased considerably, with major crises in the early 1980s (the debt crisis), the late 1990s (the Asian crisis), and the current crisis beginning in 2008, with lesser (but still significant) crises in

between (notably the Mexican crisis of 1993 and the bursting of the 'dot-com' bubble in 2000). The overall frequency of financial crises has also increased substantially during this period.[39]

The Great Depression of the 1930s was widely seen (at least in retrospect) as a systemic crisis, reflecting the institutional vacuum at the global level and the seriously perverse consequences of the resulting uncoordinated pursuit of national economic objectives. It seems difficult to disagree with this assessment. Together with the Second World War, it was the major driving force behind the Bretton Woods and Dumbarton Oaks conferences of the 1940s, which led to the establishment of the current system of global governance.

If the 1930s crisis demonstrated the disastrous consequences of not having a global institutional framework in a world of increasingly interconnected national economies, the multiple crises since the 1980s have demonstrated with equal force that the institutional framework we now have is fundamentally flawed and almost entirely ineffectual.

Taken together, the recent crises show that the global economic system is spectacularly failing to serve the interests of the majority of humanity, which happens to be poor (the development and food crises), that it is destroying the ecosystem on which the whole of humanity depends (the climate crisis), and that it is harming the interests even of most of those who are relatively well off by global standards (the financial crisis). The main beneficiaries have been those who are most responsible for causing these negative effects (speculative investors), many of whom have also lost.

The roots of these ill-effects can be traced to the institutional framework (undemocratic and ineffective global governance), the economic course to which this framework has given rise (asymmetrical and unequal globalisation and the dominant role of finance), and the direct consequences of these two phenomena (extreme inequality).

In short, the crises demonstrate that the global economic system is fundamentally dysfunctional and that the need for radical reform is every bit as great as it was in the 1940s.

Economic crises and the crisis of (orthodox) economics

The multiple economic crises show the failure not only of the current institutional framework of the global economy, but also of the currently dominant view of economics itself. Here we highlight four issues, each of which is fundamental to orthodox economics, but whose validity is so assumed that they are barely considered worth meriting attention in mainstream economic discourse. In each case, the assumptions on which orthodox economics is based cast the five crises into serious doubt.

The challenge to growth Economic growth is central to orthodox economics. It is, in practice, the primary objective of economic policy, and is widely viewed as

the primary (almost the only) criterion of success or failure. Environmentalists have for many years questioned the desirability of economic growth, at least in the developed world. Climate change represents a much more fundamental challenge to growth at the global level, leading to renewed attention being focused on the concept of the 'steady-state economy'[40] and to the development of new concepts such as 'degrowth'.[41]

Bringing climate change under control requires that atmospheric concentrations of carbon be stabilised, and this requires a very considerable reduction in emissions. Initial estimates indicated that emissions needed to be reduced by 60 per cent from their 1990 levels by the year 2050 to limit the increase in global temperature by 2°C. However, the continued and accelerating increase in emissions has greatly increased the scale of the reduction required, while leaving less time to achieve it. At the same time, the higher emissions between 1990 and 2050 will raise the concentration levels, increasing the temperature at which emissions will be stabilised even if the targets for emissions reduction are achieved.

Carbon emissions may be seen as a product of two factors: the global level of production and consumption; and their carbon intensity (that is, the carbon required for each unit of production and consumption). To date, policy on climate change has been based on technological optimism, the assumption that emission reductions can be achieved through the development and application of technologies to reduce carbon intensity, while allowing economic growth to proceed. To date, however, carbon-reducing technologies have delivered little (as shown by the accelerating growth of emissions), and, as the continued lack of progress in limiting emissions increases the rate of reduction required, the adequacy of known and anticipated technologies to reconcile emissions targets with substantial growth of the global economy becomes ever more questionable.[42]

While technological progress has conspicuously failed even to slow the growth of carbon emissions substantially, the impact of the financial crisis on global economic growth actually reduced the level of emissions in 2009, but it resumed with the partial economic recovery in 2010.[43] This dramatically underlines the scale of the environmental challenge to achieving sustainable global economic growth.

The counter-argument generally advanced is that growth is necessary to reduce poverty and to provide the resources required for essential services, such as health care and education. However, this view is also being increasingly challenged, on the basis of the very unequal distribution of the additional income generated by growth.

If income distribution remains unchanged, each person's share in the benefits of growth is, by definition, proportional to his or her initial share in income. This inevitably means that the rich gain much more of the benefits than the poor, and, where distribution is very unequal – as it is in most national

economies, and much more in the global economy – the share of the poor is extremely small. Worse, assessments of the distribution of the benefits of growth have found that these benefits are much more unequally distributed than even initial incomes. Thus, the richest 1 per cent of the population is estimated to have received 58 per cent of the benefits of growth in the United States between 1976 and 2007,[44] and the poorest 23.2 per cent of the world population (those below the 'US$1-a-day' poverty line in 1990) is estimated to have received just 0.6 per cent of the benefits of global growth between 1990 and 2001. The poorer half of the world population (those below the 'US$2-a-day' poverty line in 1990) received just 3.1 per cent of the benefits of global growth.[45]

These last figures reveal that the challenge to global growth is much more serious than anticipated. It means that each US$1 spent on poverty reduction through global growth (based on the 'US$1-a-day' poverty line) requires US$166 of additional production and consumption globally, along with all the associated carbon emissions and other environmental costs. As a means of reducing poverty in a carbon-constrained world, this strategy simply does not make sense.

There is long-standing evidence that economic growth in developed countries does not increase the well-being of their populations.[46, 47, 48, 49] Even the most comprehensive critique of this view[50] poses a serious challenge to the assumption that growth is the sole or primary objective of economic policy, indicating that well-being is determined not by total income but by the sum of the logarithm of individual incomes, which is also highly sensitive to distribution. The primacy accorded to economic growth is based on the assumption that US$1 of additional income provides the same benefit irrespective of who receives it. But even according to the most pro-growth view, it is clear that US$1 of additional income provides vastly more benefits to those who have very low incomes rather than to those with very high incomes.

This indicates the possibility of achieving very considerable benefits from redistribution, especially on a global level. To double the incomes of the poorest 10 per cent of the world population without any redistribution of income would, by definition, require 100 per cent economic growth, doubling global production and consumption, and dealing with the associated environmental costs. At a growth rate of 3 per cent pa, it would also take 24 years. Alternatively, the same result could in principle be achieved immediately by redistributing less than one-third of 1 per cent of the income of the richest 10 per cent of the world population to the poorest 10 per cent.[51]

The proponents of economic orthodoxy over the last 30 years have argued that measures aimed at redistribution should be sacrificed in the interest of economic growth, that it is more important to have a larger pie than for the poorest to have a larger share of the pie. By limiting the size of the global economic pie, climate change reverses this logic at the global level and puts the emphasis firmly on distribution and not on growth.[52]

Market efficiency, price mechanisms, and the allocation of goods Another fundamental tenet of orthodox economics is the efficiency of markets in allocating goods between uses and users. Those who value a particular good most, it is argued, will be willing to pay most for it; therefore, allowing consumers to compete in the market (and sellers to compete for their custom) will result in goods being allocated to those areas where they provide the greatest benefit. In addition to market deregulation, this provides the basis for a strong argument for market-based incentives (e.g. taxes, subsidies, tradable permits, etc.) to achieve social objectives, rather than non-market incentives (e.g. quotas, rationing, regulation, etc.).

The food crisis clearly demonstrates the invalidity of this view. By far the greatest benefit of a basic staple such as maize is provided by allowing it to be eaten by someone who would otherwise not have enough to eat. The amount of maize required to produce enough ethanol to drive one mile in an SUV in town is approximately the amount needed to feed someone for a day.[53] It seems beyond question that having enough to eat for a day rather than nothing at all provides vastly more benefit than driving one more mile in an SUV. But the purchasing power of poor people who depend on maize as a staple is very limited, while that of SUV owners is much greater. Those whose need is greatest are priced out of the market as prices are forced up by the consumption of those whose use is most trivial – and is offset by the very considerable environmental costs of ethanol production.

So where there are competing uses for the same good with very different implications for well-being, allocating goods to those who are able and willing to pay the most for them clearly does not mean allocating these goods for the most socially beneficial use – rather the contrary. In a context of extreme economic inequality, market allocations are not merely grossly inefficient, but may also be seriously damaging.

This implies a need for much greater caution in the use of price- and other market-based mechanisms in the pursuit of social goals. Take the example of relying on increases in the cost of fossil fuels (either directly through taxation or indirectly through tradable emissions permits) as a means of reducing carbon emissions. This would almost certainly reduce emissions to some extent, but the price increases necessary for achieving the reductions required would be very considerable, as the overall price elasticity of demand is relatively low.

If fossil fuel prices were, say, to double, the consumption of those at the upper end of the global income distribution (e.g. drivers of large cars and passengers on long-haul tourist flights) would be reduced, but probably very little. Between 1999 and 2007 (the latest year for which consumption data are available), world fuel prices increased nearly fourfold, but fuel consumption per person in the developed (high-income OECD) countries still rose by 1 per cent.[54] At the other end of the spectrum, poor households dependent on fossil fuels for domestic energy would be affected much more severely, both

through increased costs and forced reductions in use to protect other essential consumption. Again, the effect – reducing the most beneficial consumption, with a relatively limited impact on the least beneficial – is anything but efficient.

Failure of international factor markets A fundamental part of the rationale for opening international markets to factors of production (most notably financial capital, but also human capital) is that free markets allow scarce resources to be reallocated from areas of relative plenty to areas of greatest scarcity. In practice, however, as financial markets have become globalised and as the international movement of skilled professionals has become (somewhat) easier, exactly the opposite has happened. Capital and human capital have systematically moved out of the poorest countries where they are most needed for development and into the high-income countries where they are already most plentiful. This is a key aspect of the development crisis.

A number of factors underlie perverse *international capital flows*.

- Commercial capital flows necessarily entail much greater outflows than inflows over the long term, as lenders and investors not only expect to recover their capital but also to generate an income from it.
- Since actual and perceived risks are highest in the poorest and most capital-scarce countries, commercial capital flows to these countries are most limited and come at a substantially higher long-term cost.
- Actual and perceived risks to local holders of capital are also greater in most capital-scarce low-income countries, where viable investment opportunities are also typically limited. This gives rise to a considerable outflow of domestic capital in the form of capital flight.[55]

While some countries – notably the 'Asian miracle' economies – have succeeded in attracting substantial inflows of foreign commercial capital, much of this has been speculative rather than productive in nature, and these economies have historically had very high rates of domestic savings. The need for, and the benefits of, these inflows have thus been relatively limited.

Following the inappropriate response of the IMF and the international community to the Asian crisis of 1997 (largely triggered by the reversal of these speculative flows), most 'emerging market' economies have also accumulated considerable international reserves to reduce their reliance on the international system in the event of future crises. Since international reserves largely take the form of financial instruments issued by the major developed-country governments, this represents a further reverse flow – lending from poorer to richer governments, thus offsetting commercial inflows.

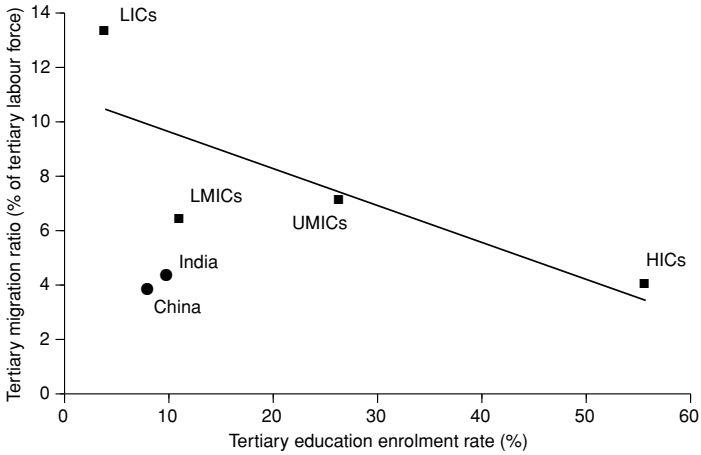
A parallel development has been the growth of sovereign wealth funds in many 'emerging market' economies and major oil exporters undertaking financial investments on behalf of governments. Some of these funds have been seriously affected by the financial crisis, losing money from investments

in sub-prime mortgage instruments and financial institutions. Some have also responded to the food crisis by investing in large tracts of land in poorer developing countries, triggering similar investments by Western agribusiness and institutional investors.[56]

Such funds also raise other important issues related to health. Malaysia's sovereign wealth fund Khazanah, for example, while operating primarily as a holding company for domestic investments, holds a 95 per cent stake in Parkway Holdings, the largest private health care provider in Southeast Asia, which has ten private hospitals in Malaysia. KPJ, which operates the largest private hospital chain in Malaysia (18 hospitals), is another publicly owned commercial enterprise that was established by the Johor provincial government. This fusion of state ownership and private capital is characterised by widespread conflicts of interest, as the state attempts to manage public–private interactions in the health care sector, to prevent the poaching of public sector staff by the private sector (internal migration, exacerbated by medical tourism), and to regulate the health care sector as a whole. With the rise of sovereign wealth funds in East Asian countries and with oil and gas exporters playing an increasingly important role, this development might be considered either as 'nationalisation' of private enterprise space or as an extension of the logic of capitalism into strategic adjuncts of the state.

For all these reasons, the net resource transfer resulting from commercial capital flows runs consistently from poorer and more capital-scarce countries to richer countries with more plentiful capital over the long term. The overall outflow from the poorest countries can be very considerable. Capital flight from sub-Saharan Africa alone between 1970 and 1996, together with the income forgone on this capital, has been estimated at US$285 billion at 1996 prices – far more than the total external debts of this region at this time.[57] This is in addition to substantial outward net resource transfers on commercial debts through the 1980s and 1990s (despite debt relief) and often strongly negative outward net transfers on foreign direct investment. The latter is itself substantially understated as a result of the concealment of transnational companies' profits through transfer-price manipulation (deliberate mis-pricing of trade transactions between different parts of the same transnational company located in different tax regimes). The value of export and import mis-pricing has been estimated at US$250 billion in 2005 in the United States alone.[58] The net result is a sustained haemorrhage of capital as a direct result of the operation of commercial financial markets, offsetting or reversing the benefits of aid and official lending.

Much the same effect is seen in the case of *human capital*, and with a more direct impact on health. Far from correcting imbalances in the availability of human capital by encouraging flows from areas of plenty to areas of scarcity, selectively increasing the migration of highly educated and skilled professionals has the opposite effect, giving rise to a 'brain drain' from countries where acute



A1.7 Tertiary enrolment ratios and tertiary migration (*source*: Global Development Indicators Database, World Bank, accessed 16 August 2010)

shortages of human resources constitute a serious constraint to development and growth, to those countries whose economic advantages allow them to develop much greater and more skilled human resources.

This has been widely recognised since at least the 1970s, and nowhere more than in the health sector. In high-income countries, where 57 per cent of people on average receive tertiary education, only 4 per cent of them migrate. In low-income countries, where less than 5 per cent of people receive tertiary education, 13 per cent of those who do, migrate. (See Chart A1.7.) Middle-income countries fall between the two on both indicators. (It should be noted that the migration rate for lower- and middle-income countries is artificially reduced by the dominance in this group of China and India, which, like other very large countries, have very low external migration rates relative to their economic crcumstances.)

In many countries, the figures are much higher. Around 2000, 23 countries had outward migration rates of people with tertiary education of between 55 per cent and 90 per cent. While most were small island economies, these include Jamaica (85 per cent), Haiti (83 per cent), and Gambia (67 per cent). Seven other sub-Saharan countries have rates between 35 per cent and 50 per cent (Sierra Leone, Ghana, Liberia, Kenya, Uganda, Eritrea, and Somalia), as do Laos and Lebanon.[59]

There are 14 developing countries where a majority of doctors born in those countries were working in OECD countries alone in 2000. Six of these countries (Angola, Haiti, Liberia, Mozambique, Sierra Leone, and Tanzania) were identified by WHO in 2006 as suffering critical shortages of health professionals.[60]

Commercial finance and poverty reduction While the development crisis shows the impossibility of correcting imbalances between countries in the availability of capital through commercial financial markets, the financial crisis shows a

similar phenomenon at the individual level, even within one of the richest economies in the world, and that too at a time of exceptionally low interest rates.

Until the 1990s, poor people in the United States (as, in varying degrees, in other developing countries) were almost entirely excluded from financial markets by the (actual or perceived) high risks of lending to them. On the one hand, poverty seriously limits people's capacity to pay for borrowing. On the other hand, high risks increase the rate of return that lenders require to make lending worthwhile, and high interest rates increase the risk of non-payment still further.

The 1990s saw a temporary escape from this logic, but lending only appeared viable because the level of risk was concealed or misrepresented to the ultimate providers of funds. (See above.) Once the true scale of the risk became apparent, the whole system unravelled, triggering the financial crisis.

A similar, and arguably more serious, logic applies in developing countries. Commercial or quasi-commercial micro-credit operations have become a very fashionable response to poverty in developing countries. These entail lending small amounts to poor households to allow them to make productive investments that will increase their incomes. The amounts of the loans are limited by the households' ability to pay; maturities are generally very short and interest rates are very high (an average of 36 per cent pa in Asia and 44 per cent pa in Latin America and the Caribbean (30 per cent and 35 per cent respectively) in real terms).[61] In addition to the high risks, costs are increased because of the very small amounts of the loans (since the administrative cost of the loan rises less than proportionally with the size of the loan). The extremely poor are generally excluded, because for them an approach based on lending is simply unviable.

The combination of high interest rates and short maturities means that a very considerable rate of return is needed to allow the loan to be serviced in full. A two-year loan of US$100 at an interest rate of 40 per cent would need to generate a rate of return on capital of 70 per cent pa for those two years. The net benefits to the household are limited to the additional income above this level and the income accrued after the loan has been repaid. If the investment fails to generate a sufficient rate of return, the household may well lose the assets, typically land, on which the loan has been secured, and be worse off than before. This danger is particularly acute because of the many serious risks faced by poor households, in addition to market risks, notably the risk of income losses due to ill-health and high financial costs of treatment. The poorer the household is initially, the greater are these risks.

Some moderately poor households may well raise their incomes through micro-credit over the long term, but the net increases are likely to be limited. Many can be expected to become poorer, and the poorest will be excluded entirely. The effectiveness of this approach seems likely to be relatively limited,

and considerably less than that of a non-commercial approach in which funding is provided in the form of micro-grants funded by official sources rather than commercial or quasi-commercial loans.

Conclusion: a crisis of capitalism?

The global economic system is grounded firmly on capitalist principles, and the recent economic crises have clearly demonstrated its failure either to satisfy the most basic needs of most of humanity or to operate within the confines of environmental sustainability.

The current systemic crisis of the global economy demonstrates the non-viability of capitalism in its current form, characterised as it is by extreme inequality and poorly regulated markets, and dominated by the interests of a small rich minority embedded in the corporate and financial sectors.

If we want to achieve social goals such as health for all, poverty eradication, universal education, the fulfilment of human potential, and to do so while simultaneously tackling climate change and achieving true environmental sustainability, then we need to redesign the global economic system to realise these aims. We cannot simply assume that these goals will somehow magically be achieved under an economic model designed to achieve a fundamentally different and, in many respects, contradictory goal – the maximisation of total production and consumption – implemented through the distorted lens of grossly undemocratic decision-making processes in the interests of those with the greatest power and the greatest resources.

This is what has brought us to the current situation, one that is characterised by multiple crises. We cannot realistically expect more of the same to get us out of it.

Notes

1 IMF (2010). *Global financial stability report, October 2010*. Washington DC, International Monetary Fund, p. x. www.imf.org/External/Pubs/FT/GFSR/2010/02/pdf/summary.pdf.

2 Based on the latest available (2005) data from the World Bank's PovCalNet database. iresearch.worldbank.org/PovcalNet/povDuplic.html (accessed 8 February 2011).

3 Estimated from IMF (2010). *World Economic Outlook*, October 2010. Washington DC, International Monetary Fund, Tables A1, A9.

4 IMF (2010). *World Economic Outlook* database, October 2010 (accessed 8 February 2011).

5 IMF (2010). *World Economic Outlook* database, October 2010 (accessed 8 February 2011).

6 FAO (2011). *World food prices reach new historic peak*. Press release. Food and Agricultural Organisation, Rome, 3 February. www.fao.org/news/story/en/item/50519/icode/ (accessed 9 February 2011).

7 De Schutter, O. (2010). *Food commodities speculation and food price crises: regulation to reduce the risks of price volatility*. Briefing note 02, United Nations Special Rapporteur on the Right to Food, September, p. 3, citing Kaufman, F. (2010). 'The food bubble: how Wall Street starved millions and got away with it', *Harper's Magazine*, 32, July.

8 Baffes, John, and T. Haniotis (2010) 'Placing the Recent Commodity Boom into Perspective'. In Ataman, Aksoy and Bernard Hoekman, eds, Food Prices and Rural Poverty, pp. 40–70. Center of Economic and Policy Research, World Bank.

9 Schutter (2010). *Op. cit.*, p. 6.

10 Schutter (2010). *Op. cit.*, p. 6.

11 Friedlingstein, P. et al. (2010). 'Update on CO_2'. *Nature Geoscience*, Online, 21 November 2010.

12 UNCTAD (2010). *The least developed countries report, 2010: towards a new international development architecture for LDCs*. Geneva, United Nations Conference on Trade and Development.

13 Baffes and Haniotis (2010). *Op. cit.*

14 Welch, J. R. et al. (2010). 'Rice yields in tropical/subtropical Asia exhibit large but opposing sensitivities to minimum and maximum temperatures'. *Proceedings of the National Academy of Sciences*, 107(33): 14562–14567. doi: 10.1073/pnas.1001222107.

15 UNCTAD (2010). *Op. cit.*

16 Raupach, M. R. et al. (2007). 'Global and regional drivers of accelerating CO_2 emissions'. *Proceedings of the National Academy of Sciences*, 104(24): 10288–10293. doi: 10.1073/pnas.0700609104.

17 Woodward, D. and A. Simms (2006). *Growth isn't working: the unbalanced distribution of benefits and costs from economic growth*. London, New Economics Foundation.

18 Wilkinson, R. G. and K. Pickett (2009). *The spirit level: why more equal societies almost always do better*. London, Allen Lane.

19 Davies, J. B. et al. (2008). *The world distribution of household wealth*. Discussion Paper no. 2008/03, United Nations University/World Institute for Development Economics Research, Helsinki, February. www.wider.unu.edu/publications/working-papers/discussion-papers/2008/en_GB/dp2008-03/_files/78918010772127840/default/dp2008-03.pdf.

20 Kumhof, M. and R. Rancière (2010). 'Leveraging inequality'. *Finance and Development*, 47(4): 28–31.

21 Rajan, R. (2010). *Fault lines: how hidden fractures still threaten the world economy*. Princeton, Princeton University Press.

22 Atkinson, A. B., T. Piketty and E. Saez (2009). *Top incomes in the long run of history*. Working Paper 15408, National Bureau of Economic Research, Cambridge, Mass. October. Table 1.

23 www.nber.org/papers/w15408.pdf. DeNavas-Walt, C., B. D. Proctor and J. C. Smith (2009). *Income, poverty, and health insurance coverage in the United States: 2008. Current population reports. Consumer Income*. US Census Bureau, Washington DC. September. Table A-3. www.census.gov/prod/2009pubs/p60-236.pdf.

24 Kumhof (2010). *Op. cit.*, p. 29.

25 Kumhof (2010). *Op. cit.*

26 Kumhof (2010). *Op. cit.*

27 Bulir, A. and A. J. Hamann (2007). 'Volatility of development aid: an update'. *IMF Staff Papers*, 54(4): 727–39. doi:10.1057/palgrave.imfsp.9450023. www.imf.org/External/Pubs/FT/staffp/2007/04/pdfs/bulir.pdf.

28 Office for National Statistics (2010). *Annual abstract of statistics, 2010*. No. 146. Editor Ian Macrory. London, Palgrave Macmillan. Tables 16.2, 16.4, 16.5, 19.7. www.statistics.gov.uk/downloads/theme_compendia/AA2010/aa2010final.pdf.

29 Jawara, F. and A. Kwa (2003). *Behind the scenes at the WTO: the real world of international trade negotiations: lessons of Cancun*. London, Zed Books.

30 Global Health Watch (2008). *Global health watch 2: an alternative world health report*. London, Zed Books, pp. 13–14.

31 Jawara and Kwa (2003). *Op. cit.*

32 WHO (2010). *Proposed programme budget 2010–11: financial tables. Summary Table 2. Proposed programme budget by strategic objective, organizational level and source of financing, all levels, 2010–2011 (US$ million)*. Geneva, World Health Organization. apps.who.int/gb/ebwha/pdf_files/MTSP2009/PPB5-en.pdf (accessed 10 February 2011).

33 Kuziemko, I. and E. Werker (2006). 'How much is a seat on the Security Council worth? Foreign aid and bribery at the United Nations'. *Journal of Political Economy*, 114(5): 905–30.

34 Andersen, T. B., H. Hansen and T. Markussen (2006). 'US politics and World Bank IDA-lending'. *Journal of Development Studies*, 42(5): 772–94.

35 Andersen, T. B., T. Harr and F. Tarp (2006). 'On US politics and IMF lending'. *European Economic Review*, 50(7): 1843–62.

36 Dreher, A. and N. M. Jensen (2007). 'Independent actor or agent? An empirical analysis of the impact of U.S. interests on International Monetary Fund conditions'. *Journal of Law and Economics*, 50(1): 105–24.

37 Watkins, K. (1992). *Fixing the rules: North–South issues in international trade and*

the GATT Uruguay Round. London, Catholic Institute for International Relations.

38 Gianviti, F. (1999). 'Decision-making in the International Monetary Fund'. In: IMF (ed.), *Current developments in monetary and financial law*. Washington DC, International Monetary Fund.

39 Cornia, G. A. (2001). 'Globalization and health: results and options'. *Bulletin of the World Health Organization*, 79(9): 834–41.

40 Daly, H. D. (1991). *Steady state economics*. Washington DC, Island Press.

41 Economic De-Growth for Ecological Sustainability and Social Equity Conference (2008), 'Declaration'. Paris, 18–19 April. events.it-sudparis.eu/degrowthconference/Declaration%200n%20Degrowth%20EN.pdf (accessed 11 February 2011).

42 Simms, A. et al. (2010). *Growth isn't possible: why we need a new economic direction*. London, New Economics Foundation.

43 Le Quéré, C. et al. (2009). 'Trends in the sources and sinks of carbon dioxide'. *Nature Geoscience*, 2: 833–4. Updated in Friedlingstein, P. et al. (2010). 'Update on CO_2 emissions'. Letter, *Nature Geoscience*, 3: 811–12.

44 Atkinson, Piketty and Saez (2009). *Op. cit*.

45 Woodward, D. and A. Simms (2006). *Growth isn't working: the unbalanced distribution of benefits and costs from economic growth*. London, New Economics Foundation.

46 Easterlin, R. A. (1974). 'Does economic growth improve the human lot? Some empirical evidence'. In David, P. A. and M. W. Reder (eds.), *Nations and households in economic growth: essays in honor of Moses Abramovitz*. Palo Alto, Calif., Stanford University Press.

47 Frey, B. S. and A. Stutzer (2002). 'What can economists learn from happiness research?' *Journal of Economic Literature*, 40(2): 402–35.

48 Layard, P. R. G. (2005). *Happiness: lessons from a new science*. London, Penguin.

49 Easterlin, R. A. et al. (2010). 'The happiness–income paradox revisited'. *Proceedings of the National Academy of Sciences,* early edition, 26 October.

50 Stevenson, B. and J. Wolfers (2008). 'Economic growth and subjective well-being: reassessing the Easterlin paradox'. *Brookings Papers on Economic Activity*, 1: 1–87.

51 Based on figures for global income distribution in US dollar terms from Milanovic, B. (2005). *Global income inequalities. Presentation to the Council for Foreign Relations*, Washington DC, 13 December. siteresources.worldbank.org/INTDECINEQ/Resources/cfr.ppt (accessed 10 February 2011).

52 Woodward and Simms (2006). *Op. cit*.

53 Estimated on the basis of McNeely, J. A. (2006). 'Biofuels: green energy or grim reaper?' *Viewpoint*, BBC, 22 September 2006. news.bbc.co.uk/2/hi/science/nature/5369284.stm (accessed 10 February 2010); and Wickell, D. (2006). 2006 Range Rover pricing, options and pictures. 'Trucks', about.com. trucks.about.com/od/2006suvs/ss/range_rover_3.htm (accessed 10 February 2011).

54 World DataBank, World Bank (accessed 10 February 2011).

55 Boyce, J. K. and L. Ndikumana (2001). 'Is Africa a net creditor? New estimates of capital flight from severely indebted sub-Saharan African countries, 1970–96'. *Journal of Development Studies*, 38(2): 27–56.

56 Deininger, K. et al. (2010). *Rising global interest in farmland: can it yield sustainable and equitable benefits?* Washington DC, World Bank.

57 Boyce and Ndikumana (2001). *Op. cit*.

58 Pak, S. (2007). 'Capital flight and tax avoidance through abnormal pricing in international trade: the issue and the solution'. Chapter 11 in Tax Justice Network, *Closing the floodgates: collecting tax to pay for development*. London, TaxJustice Network, pp. 118–22. www.taxjustice.net/cms/upload/pdf/Closing_the_Floodgates_-_1-FEB-2007.pdf.

59 Global Development Indicators Database, World Bank (accessed 16 August 2010).

60 United Nations, Department of Economic and Social Affairs, Population Division (2010). 'Health workers, international migration and development'. *Population Facts*, No. 2010/2/E, Population Division, UN DESA, March.

61 Ramírez, A. (2004). *The microfinance experience in Latin America and the Caribbean. Workshop on Modalities of Microfinance Delivery in Asia: LAEBA Research Conference on Microfinance in Latin America and Asia*. Asian Development Bank Institute, Manila, the Philippines, 4–8 October 2004. 193.43.36.16/servlet/BinaryDownloaderServlet?filename=1126101177627_Microfinance_experience_in_LAC.pdf.