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ABSTRACT

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Starting in mid-2007, the global financial crisis quickly metamorphosed from the bursting of the housing bubble in the US to the worst recession the world has witnessed for over six decades. Through an in-depth review of the crisis in terms of the causes, consequences and policy responses, this paper identifies four key messages. Firstly, contrary to widely-held perceptions during the boom years before the crisis, the paper underscores that the global economy was by no means as stable as suggested, while at the same time the majority of the world's poor had benefited insufficiently from stronger economic growth. Secondly, there were complex and interlinked factors behind the emergence of the crisis in 2007, namely loose monetary policy, global imbalances, misperception of risk and lax financial regulation. Thirdly, beyond the aggregate picture of economic collapse and rising unemployment, this paper stresses that the impact of the crisis is rather diverse, reflecting differences in initial conditions, transmission channels and vulnerabilities of economies, along with the role of government policy in mitigating the downturn. Fourthly, while the recovery phase has commenced, a number of risks remain that could derail improvements in economies and hinder efforts to ensure that the recovery is accompanied by job creation. These risks pertain in particular to the challenges of dealing with public debt and continuing global imbalances.

JEL Classification: E24, E60, G01, J08, J60

Keywords: global financial crisis, unemployment, macroeconomic policy, labour market policy

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1 Introduction

The global financial crisis of 2007 has cast its long shadow on the economic fortunes of many countries, resulting in what has often been called the 'Great Recession'.[1] What started as seemingly isolated turbulence in the sub-prime segment of the US housing market mutated into a full blown recession by the end of 2007. The old proverbial truth that the rest of the world sneezes when the US catches a cold appeared to be vindicated as systemically important economies in the European Union and Japan went collectively into recession by mid-2008. Overall, 2009 was the first year since World War II that the world was in recession, a calamitous turn around on the boom years of 2002-2007.

The crisis came largely as a surprise to many policymakers, multilateral agencies, academics and investors. On the eve of the outbreak of the financial crisis, Jean-Philippe Cotis of the OECD (2007) declared: '…for the OECD area as a whole growth is set to exceed its potential rate for the remainder of 2007 and 2008, supported by buoyancy in emerging market economies and favourable financial conditions'. In the wake of the global recession of 2008-2009, the economics profession has come under a great deal of criticism from leading scholars. Krugman (2009a) chides fellow economists for their '…blindness to the very possibility of catastrophic failures in a market economy'. Galbraith (2009) offers a robust critique of the economics profession and argues that both explicit and implicit intellectual collusion made it difficult for the leading members of the profession (invariably associated with elite American universities) to encourage a genuine discourse based on alternative views. The result was that a rather limited intellectual conversation took place between essentially like-minded scholars.

Therefore, it is not surprising that, for much of 2008, the severity of this global downturn was underestimated. Subsequently, leading forecasters, including the IMF and World Bank, made a number of revisions to its growth forecasts during 2008 and into 2009 as the magnitude of the crisis grew.[2] Of course, there were some voices that issued dire warnings of a brewing storm, but they were not enough to catch the attention of many who were lulled into a

[1] Rampell (2009) traces the evolution of the term and points out with some irony that it has also been used to describe all post-war recessions. Reinhart and Rogoff (2009) refer to the crisis as the 'Second Great Contraction'.
[2] See IMF (2009c)

collective sense of complacency in the years leading up to the crisis. Some policymakers, after being caught by surprise at the seemingly sudden appearance of a global downturn, confidently noted that nobody could have predicted the crisis. Thus Glenn Stevens (2008), Governor of the Reserve Bank of Australia observed: 'I do not know anyone who predicted the course of events'. Yet, there were economists and other professional analysts, albeit small in numbers, who were prescient enough to issue a warning about a gathering storm. One paper (Bezemer 2009a: table 1, p.9) claims that 12 economists and professional analysts predicted (between 2005 and 2007) a likely recession based on models in which private sector debt accumulation played a major role,[3] while another cites an even smaller number (Foreign Policy 2009).

In retrospect, however, the warning signs were there: large current deficits in the US, UK and other advanced economies that were being financed by the excess savings of emerging economies and oil exporters (the global current account imbalance); loose monetary policy (most notably in the US in the wake of the mild recession of 2001); the search for yield and misperception of risk; and lax financial regulation.

Following events in 2008, particularly the collapse of Lehman Brothers in September, risk-loving banks and investors around the world rapidly reversed their perceptions. Due to the complexity of the mortgage-backed securities, they were, however, unaware of the true extent of the liabilities linked ultimately to a rapidly deteriorating US housing sector. Consequently, liquidity quickly dried up, almost bringing the global financial system to its knees. Some commentators even questioned whether American-style capitalism itself had been dealt a death blow.

Determined to avoid mistakes made by policymakers during previous crises, governments in both advanced and developing countries reacted aggressively by injecting massive amounts of credit into financial markets and nationalizing banks, slashing interest rates, and increasing discretionary spending through fiscal stimulus packages. This response helped avoid a catastrophic depression in many countries though the effectiveness of policies has varied depending on the magnitude of the response and vulnerabilities of the domestic economy.

[3] See also Bezemer (2009b) 'Why some economists could see the crisis coming', Financial Times, September 7, 2009.

However, despite these interventions, the global financial crisis quickly evolved into a global jobs crisis, as the crisis-induced credit crunch strangled the real economy and trade flows collapsed. Unemployment in OECD countries has surged, while in countries without social security schemes, the downturn has threatened to push millions into poverty.

Many – but by no means all – developing and emerging economies felt the deleterious effects of the US recession by the end of 2008. The typical outcome was a growth deceleration (ranging from mild to major) in many parts of the developing world, but there were cases of outright recessions too. Hard-hit countries include Armenia, Mexico, South Africa, Turkey, the Baltic States, and Ukraine. At the same time, the two most successful globalizers of recent times have avoided a major downturn, which has been crucial for kick-starting the recovery in 2009. China has, in particular, managed to keep their economy growing in 2009 at a rate of 8.7 per cent, which was supported by the massive stimulus package put together by the Chinese authorities (amounting to US$585 billion). With a smaller stimulus, the Indian economy has also proven to be resilient thanks to strong domestic demand, with growth only falling to 6.7 per cent in 2009.

Nonetheless, the world economy enters 2010 in an environment fraught with considerable degree of uncertainty. While the worst seems to be over, and while one hears proclamations of a robust recovery, the jury is still out on the lessons and legacies of the tumultuous economic events of 2008 and 2009. How apposite is the epithet of the ‘Great Recession’? What were the historical and global circumstances that led to its seemingly sudden emergence? To what extent were policy errors by past US administrations responsible for the crisis? How have policymakers across the world responded to such economic volatility? How effective have these responses been? What is the way forward in a post-crisis world? These are the questions that are probed in this paper. In raising these questions and seeking to respond to them, the paper does not intend to offer a blueprint for a post-crisis world, nor does it aim to offer policy prescriptions that seek to uphold the institutional agenda of any particular international organization or national government.

This paper provides both an historical perspective on the period leading up to the crisis and insights into the events surrounding the crisis of 2007. This task is undertaken in section 2, which discusses the notions of the ‘Lost Decades’ and the ‘Great Moderation’, and the prevalence of crises throughout history, before turning to the boom years of 2002-2007, which was also accompanied by a food and oil crisis in developing countries. Next, the paper provides a summary of the causes, consequences and policy responses of governments to the global financial crisis that took hold in 2007 (sections 3-4). The succinct account of these issues highlights both the severity of the crisis and the diversity in its impact on both advanced and developing economies. Section 5 considers the recovery phase that tentatively began in mid-2009 and the potential risks that remain. Finally, section 6 provides some concluding remarks.

2 Interpreting the pre-crisis period: alternative views

Over the years leading up to the global financial crisis of 2007 and the ensuing recession, commentators, including leading academics, postulated that the economy had entered a new era of low volatility (known as the 'Great Moderation'). Apart from this OECD-centric view, there are other interpretations of the economic trends of the last few decades, namely the insufficient rates of growth in developing countries in the 1980s and 1990s to tackle poverty (the 'Lost Decades'), and then more recently, the devastating impact of the surge in oil and food prices on the poor (the 'crisis-before-the-crisis'). Moreover, the financial crisis that hit the global economy in 2007 and 2008 was by no means the first. A review of previous crises reveals that these episodes have occurred frequently, a fact that was so easily forgotten during the boom years of the 2000s.

2.1 The 'Lost Decades' and the 'Great Moderation': different views on recent global economic trends

Traumatic external events have the potential to engender turning points in the evolution of the global economy. In this respect, the second oil price shock (1979) was followed by a prolonged global growth slowdown that lasted throughout the 1980s and well into the 1990s. The per capita median real per capita growth rate of the developing world between 1980 and 1998 was effectively zero. This situation was most pronounced in sub-Saharan Africa. This growth slowdown happened despite the implementation of policy reform under the rubric of the structural adjustment programs (SAPs) led by the Bretton Woods Institutions. Between

1980 and 1998, 958 SAPs were negotiated and implemented. Not surprisingly, the 1980s and 1990s have been dubbed by some as the 'Lost Decades'. The 'Lost Decades' seem to have emerged as a result of external factors, most notably the impact of the 'slowdown in growth in the industrial world'.[4]

Focusing on the situation in advanced economies, other commentators have referred to the decades leading up to the crisis as the 'Great Moderation', a term attributed to the current Federal Reserve Governor, Ben Bernanke and other writers on the subject.[5] This claim refers to the decline in macroeconomic volatility over the last 25 years, following the crises of the 1970s and 1980s. Bernanke (2004) states that the fall in macroeconomic volatility can be attributed to structural changes (meaning 'changes in economic institutions, technology, business practices, or other structural features of the economy have improved the ability of the economy to absorb shocks') and improved macroeconomic policies. In 2004, the Governor of the Federal Reserve stressed that 'improved monetary policy has likely made an important contribution not only to the reduced volatility of inflation ... but to the reduced volatility of output as well.' At that time, this interpretation of recent economic history seemed to rest on **'**solid**'** empirical evidence. However, this view contributed to the dangerous underestimation of risk (i.e. that low levels of macroeconomic volatility would continue), which was a major factor in the build-up to the crisis.

Thus, the global and historical circumstances surrounding the emergence of the crisis of 2008 and 2009 are subject to alternative interpretations. They are either marked by a great deal of optimism or afflicted by a dim view of the past. This dichotomy, in turn, reflects dualism in the global economy: countries which were gaining from globalization (OECD and emerging economies such as China and India) versus the losers (or the **'**not so strong gainers**'**) such as poorly integrated low-income countries.

The global financial crisis has put some of these views into question, particularly the notion that monetary policy was doing a good job at maintaining stability. The problem as discussed

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[4] See Easterly (2001)

[5] See the Remarks by Governor Ben Bernanke at the meeting of the Eastern Economic Association, Washington, DC on February 2004, http://www.federalreserve.gov/BOARDDOCS/SPEECHES/2004/20040220/default.htm. See also Baker (2007), Bernanke (2004), Blanchard and Simon (2001), and Reinhart and Rogoff (2008).

further in this paper was that the instability was manifesting itself elsewhere, namely in asset markets (housing and stock markets).

2.2 A history of crises

Given the historical evidence, insufficient attention was paid to the costs associated with low frequency, high impact events, particularly among the proponents of the ‘Great Moderation’. This inadequate perception of risk stands in contrast to the fact that between 1970 and 2008, there were: 124 systemic banking crises; 208 currency crises; 63 sovereign debt crises; 42 twin crises; 10 triple crises; a global economic downturns about every ten years; and several price shocks (two oil shocks in the 1970s, the food and energy price shock in 2007-2008 discussed below).[6]

Contemporary studies of the historical evidence such as IMF (2009a) and Reinhart and Rogoff (2009) have shown that such financial crises typically induce a sharp recession, which last approximately two years. Consumption, private investment and credit flows are also slow to improve, which is driven by deleveraging of debts and risk perceptions. As a consequence, recovery is slow with unemployment levels continuing to rise for a number of years after the economy has started to grow again.

Economic crises are not just a peculiarity of advanced economies. Indeed, developing countries have been highly vulnerable to a plethora of banking, external debt, currency, and inflation crises during recent decades. The debt crisis of the 1980s, the Asian financial crisis of the late 1990s and the more recent debt crisis in Latin America in the 1990s and 2000s have all resulted in deep recessions. Many developing countries have repeatedly suffered crises due to poor macroeconomic management and policymaking. For example, Argentina has experienced four banking crises since 1945 (Reinhart and Rogoff 2009).

In developing countries, how households cope with economic downturns and external shocks impose social costs that are not always easy to reverse. For example, in the case of the Asian

[6] See Laeven and Valencia (2008), IMF (2009b) and Reinhart and Rogoff (2008). Pollin (2009:1), drawing on the seminal work of Charles Kindleberger, makes the point that ‘…from 1725 onwards, financial crises have occurred throughout the Western capitalist economies at an average rate of about one every eight and a half years’.

financial crisis, there was an increase in the incidence of poverty, ranging between 3.1 per cent (Thailand) and 7.6 per cent (Indonesia) and a decline in real wages ranging between -8.9 per cent (Korea) to about -40 per cent (Indonesia).[7]

Overall, it is clear that, despite the 'Great Moderation', the costs associated with low-frequency, high-impact events are high. This means that risk management strategies aimed at containing these costs should be a core part of economic policymaking.

2.3 The synchronised global boom of 2002-2007

Amid the doom and gloom of 2008 and 2009, it was easy to forget that the pre-crisis period between 2002 and 2007 was one of historically high rates of growth, especially for developing countries. There was a relatively mild global downturn in 2001 after the bursting of the dotcom bubble. This was followed by a synchronised boom that lasted until 2007. Many countries, particularly in such regions as Africa, grew at rates not seen since the 1960s and early 1970s, signalling a departure (at least statistically) from the 'Lost Decades'. This led some economists to hail the onset of a global 'platinum age'.[8] These advocates of the platinum age are pitted against those who still maintain that the golden age of global growth was the 1950-1973 period. Indeed, a former Chief Economist of the World Bank once noted that the 1960s represent the golden age of economic development.[9]

However, in hindsight, the 2002-2007 period stands out as a case of an unsustainable boom. There was a surge in various forms of external finance (export revenues, remittances, private capital flows) that fed a consumption boom in advanced economies and a surge in investment and exports in the developing world led by China and other emerging economies.[10] Overall, the increase in credit flows pushed the cost of capital down (World Bank 2010). Such a growth experience bred a sense of robust optimism about the future, especially among

[7] There is a large literature on the Asian Financial Crisis. See, for example, Lee (1998).
[8] As Garnaut and Huang (2007 :9) put it : 'Global growth looks set to exceed 5 per cent in 2007 for the fourth successive year – higher than the 4.9 per cent average of the 'Golden Age' from 1950 to 1953. China is now at the centre of what could turn out to be the strongest period of global economic growth the world has seen – a 'Platinum Age'.
[9] Michael Bruno, a former World Bank Chief Economist, observed: 'The 1960s look like the golden age of development'. See Bruno (1995:9).
[10] See Lin (2008) who highlights the surge in external financing of global growth over the 2002-2007 period, but does not emphasize its lack of sustainability.

investors in developed economies leading to an underestimation of risk. This state of mind perhaps contributed to the collective complacency of policymakers, development practitioners and multilateral agencies that were evident even at a time when the seeds of a rather severe global economic recession were being sown in the US heartland.

2.4 The crisis before the crisis – jobless growth, sluggish real wages and the food and energy crisis

One legacy of the global boom of 2002 and 2007 was that insufficient attention was being given to the stresses and strains that afflicted labour markets across the world even during the high-growth era. Quantitative expansions in employment in many parts of the world, particularly in developing countries, were juxtaposed with sluggish real wage growth, persistence of the informal economy, 'casualization' of the work-force, declining wage shares in national output and rising inequality. This is a familiar theme in recent ILO reports,[11] but other organizations, such as the OECD and the World Bank, have also highlighted the problems of growing economic insecurity and inequality in regional and global labour markets.[12] Decent work remains an elusive goal in many low and middle-income countries.

One key shortcoming of the boom period was the failure for increases in economic growth to translate into improvements in household incomes. For example, in three major developing and emerging economies – Indonesia, South Africa and Turkey - real wages in the 2000s hardly showed any sustained improvement.[13] Even in consumption-led economies like the US, incomes remained relatively stagnant over this period (Figure 1). However, in contrast to developing countries where this situation translates to stubborn levels of poverty, American households were able to increase consumption by tapping into their wealth, namely the increase in household equity that accompanied rising prices (Baily et al. 2008). This increase in consumption was reflected in the worsening US current account deficit, which rose from US$398.3 billion (3.9% of GDP) in 2001 to $803.6 billion (6.0% of GDP) in 2006.

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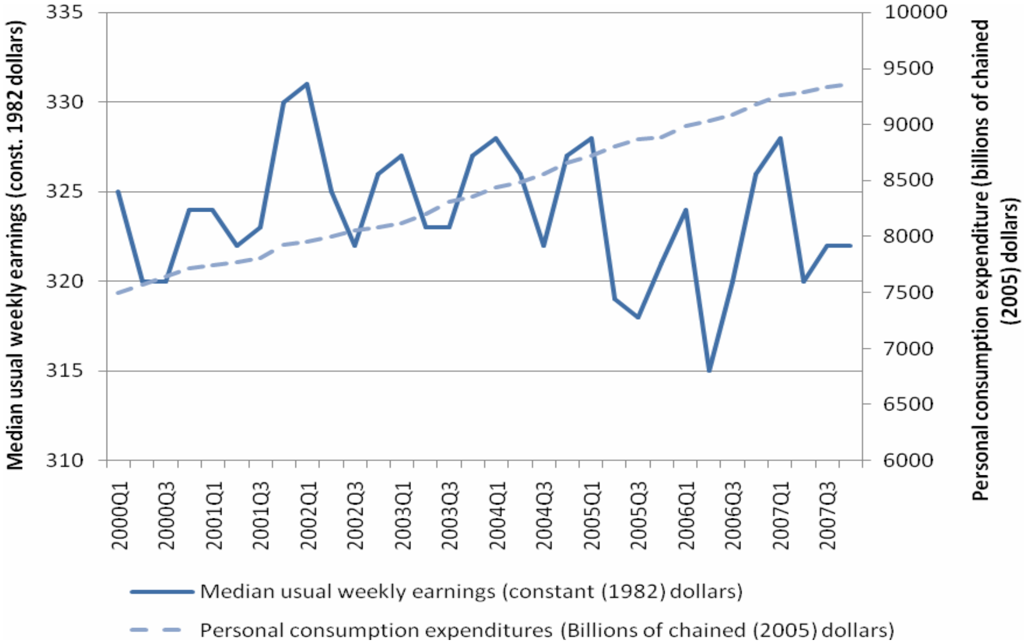
[11] See, for example, ILO and IILS (2008), ILO (2008), ILO (2009c), Ghose et al (2008)

[12] See the 2007 editorial by the OECD on the 'globalization paradox' and the statement by Holzmann (2006) on behalf of the World Bank.

[13] On Indonesia, see Dhanani, Islam and Chowdhury (2009: chapter 4). On South Africa, see Verick (2010) and on Turkey, see Yelden and Harcan (2009).

Figure 1: Growing consumption in the US during the boom years despite stagnant real wages, 2000-2007



Source: Bureau of Labour Statistics, www.bls.gov, and Bureau of Economic Administration, www.bea.gov.

In addition to this phenomenon, during 2007 and the early part of 2008, many developing countries were buffeted by food and energy price shocks that impaired the fiscal and current balances of the affected economies, led to food riots and protests in many countries and pushed millions into poverty.[14] This process was also an outcome of the global boom and the surging demand for goods in China, India and other fast-growing emerging economies. This situation was more pronounced for the non-oil or mineral exporters, but even within countries benefiting from the commodity bonanza, the poor were suffering from skyrocketing inflation without seeing much of the returns from the exports. The 2007-2008 food and energy price shocks appears to have pushed more than 100 million people in the developing world into transient episodes of poverty.[15] In comparison, the World Bank estimates that the Great Recession of 2008-2009 has resulted in an increase in poverty of 64 million people (by 2010) (World Bank 2010). The food and oil crisis was (and is), therefore, arguably a much greater

[14] See World Bank/IMF (2009) Global Monitoring Report, Washington DC, p.1. As the report puts it: 'For poor countries, this is a crisis upon crisis. It comes on the heels of the food and fuel crises. The triple jeopardy of the food, fuel, and financial crises is pushing many poor countries into a danger zone, imposing rising human costs and imperilling development prospects'. See also Islam, R and Buckley (2009).

[15] See the statement of the World Bank's President in April 2008, http://go.worldbank.org/5W9U9WTJB0

concern for low and middle-income countries than the global financial crisis that affected rich, highly globalized economies more severely.

3 The global financial and economic crisis of 2007-2009

This historical perspective on the decades leading up to the financial crisis shows that the global economy was by no means as stable as suggested by many observers. That said, the crisis was largely unexpected and due to its complex roots, it continued to puzzle policymakers, economists and other commentators as it unravelled and sucked in at first banks and companies, and then economies across the globe. The collapse in the real economy has had devastating consequences for households as a result of rising unemployment and surging poverty. At the same time, some countries have been affected more than others due to differences in initial conditions (state of economy, labour market, fiscal space, institutional framework) and exposure to direct and indirect impact of the crisis via credit and trade channels. These issues are further explored in this section.

3.1 Rates, risk, regulations and global imbalances: factors behind the global financial crisis

Leading up to the crisis there were many telltale signs that should have set off alarm bells. The vast majority of academics, officials and investors ignored the signals and rather made profuse claims about a new era. There was a general euphoria about the conditions in the global economy and with many commentators claiming that 'this time is different'.[16] As argued by this study, there are, however, many similarities between the US sub-prime crisis and previous banking crises such as the massive surge in housing and equity prices, the growing current account deficit and rising level of (private) debt. At the same time, the exposure of lenders and investors was complicated by the unprecedented level of securitization of mortgages (through collateral debt obligations), which created considerable uncertainty in financial markets as the crisis unfolded. This, in turn, resulted in a sudden reversal of risk perceptions (from risk seeking to risk aversion).

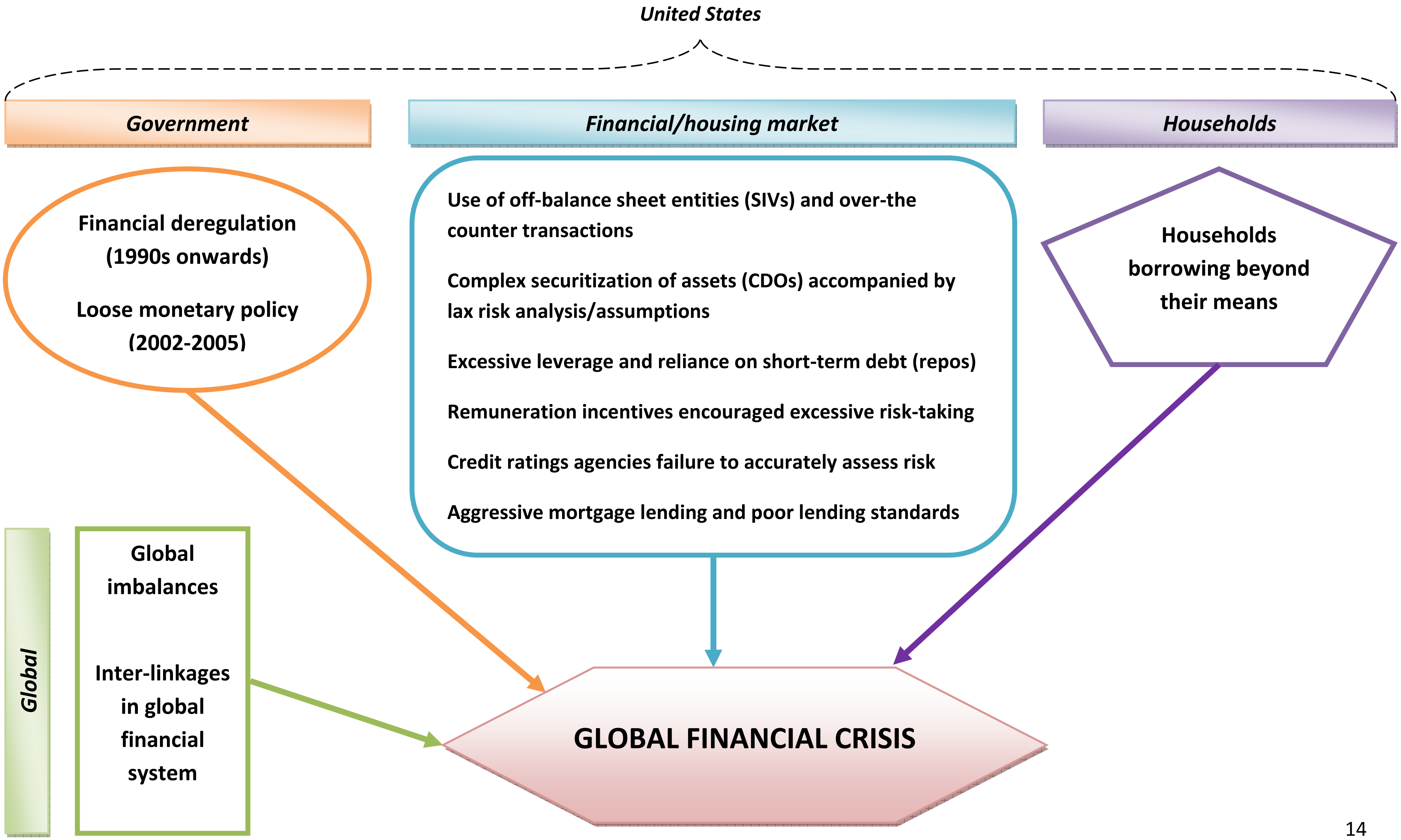
[16] Referring to the phrase (and title) adopted by Reinhart and Rogoff (2009)

The causes of the crisis have become, understandably, a major topic of discourse among both academics and policymakers. The debate surrounding this issue has generally focused on the role of market failure in precipitating the crisis, namely the catastrophic performance of the financial market that was in stark contrast to the theoretical proposition that it is efficient (i.e. prices in the stock and bond markets instantly and accurately reflect all available information at the time). This puts one of the core tenets of capitalism into question. At the same time, most contributions to the ongoing post-mortem analysis of the crisis recognizes that government failure has played a major role in allowing banks and other financial institutions to capitalize on loop-holes in the regulatory system to increase leverage and returns. In terms of government policy, Taylor (2009) stresses that the excessively loose US monetary policy fuelled the credit boom, while others such as Elmendorf (2007) conclude that interest rates were not too low. In addition to these dimensions, the debate has considered both the contribution of domestic issues (US financial regulation and monetary policy) and global imbalances (the glut of savings flowing from surplus countries to deficit economies).

Overall, drawing from a comprehensive review of crisis-related studies[17], four core, but interrelated, factors can be identified: interest rates, global imbalances, perceptions of risks and regulation of the financial system. These factors are captured in Figure 2 (though this diagrammatic representation of the crisis excludes the complex interactions between the different elements to ensure readability).

[17] See, for example, the contributions in the special issue of *Critical Review* by Acharya and Richardson (2010), Stiglitz (2010b), and Taylor (2010), along with Astley (2009), Baily et al. (2008), Fox (2009), Garnaut (2009), Krugman (2009a,b), Obstfeld and Rogoff (2009), IMF (2009b), Posner (2009), Reinhart and Rogoff (2009), Sheng (2009), Stiglitz (2010a) and Taylor (2009).

Figure 2: Explaining the key factors behind the global financial crisis



Loose monetary policy versus global imbalances

Any post-mortem of the first decade of the 21st century cannot avoid the role that past US administrations have played in shaping it. When faced with a recession in 2001 following the bursting of the so-called 'dot.com' bubble, the US monetary authorities aggressively reduced the policy interest rate to unprecedented levels and thus fuelled a debt-financed consumption boom that led the way in boosting global aggregate demand. Interest rates in the US stood at just 1 per cent in 2003 (Figure 3). This ensured that the 2001 recession was shallow and short-lived, but it paradoxically sowed the seeds of the global recession of 2008-2009.[18] In this respect, Taylor (2009) argues that over the period 2001-2006, the Federal Reserve's policy was too loose resulting in interest rates that were far lower than suggested by the Taylor rule, which, in fact, was the largest deviation since the 1970s.[19] Indeed, the real (inflation-corrected) funds rate was negative for 31 months (from October 2002 to April 2005).

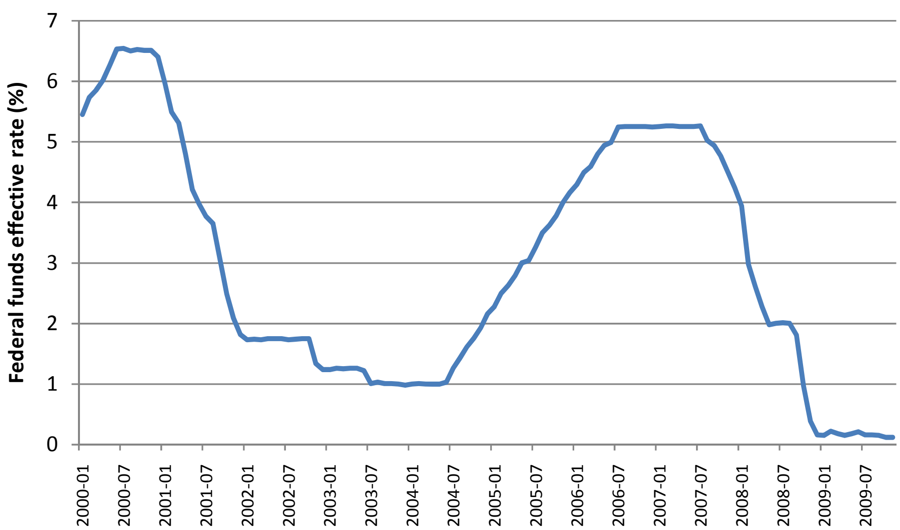
In contrast, Elmendorf (2007) claims that interest rates were only **'**a little too easy for too long, but the adjustments that appear optimal in hindsight would not have fundamentally altered the housing cycle and related developments.**'** (Elmendorf 2007: 3). In any case, by focusing on a narrow definition of price stability, monetary policy in the US and elsewhere failed to tackle the ballooning bubble in asset markets. At the same time, Shiller (2008) points out that the housing boom in the US started in the late 1990s and thus predates the period of excessively low interest rates, but acknowledges that loose monetary policy contributed to the rapid growth in mortgages to sub-prime borrowers (see discussion below).

Looking at the long end of the market, yields on US government bonds (Treasury Bills) were also unusually low during the pre-crisis period.[20] The low interest environment in the US persisted because oil exporters in the Middle East and export powerhouses – led by China in East Asia – developed a prodigious appetite for building up foreign exchange reserves in US

[18] As argued by Reinhart and Rogoff (2009), the bursting of the dotcom bubble resulted in a relatively mild recession because it had not been accompanied by an unsustainable increase in debt levels.
[19] The Taylor rule prescribes how a central bank should adjust its interest rate policy instrument in response to changes in inflation and macroeconomic activity. In particular, the rule implies that the real short-term interest rate should be determined according to three factors: (1) where actual inflation is relative to the targeted level; (2) how far economic activity is above or below its full employment level; and (3) what the level of the short-term interest rate is that would be consistent with full employment. See, for example, Orphanides (2007).
[20] See US Treasury data, http://www.ustreas.gov/tic/ticsec2.shtml

dollar-denominated assets (typically low-yield US government bonds). Thus was bred the so-called 'global imbalances' that entailed the juxtaposition of 'excessive savings' by surplus countries (led by China) and 'excessive consumption' by deficit countries (led by the US). Proponents of the global imbalances thesis could argue that such imbalances were unsustainable and would have unravelled at some point even if the US sub-prime market did not implode by mid-2007.

Figure 3: US interest rates were too low following the bursting of the dotcom bubble (monthly Federal funds effective rate)



Source: http://www.federalreserve.gov/releases/h15/data.htm
Note: Federal funds effective rate; the monthly effective federal funds rate is a weighted average of rates on brokered trades.

In the years leading up to the crisis, a number of economists expressed their concerns that the large current deficit in the United States was unsustainable. Based on previous current account-driven crises, many commentators felt that the US deficit of more than five per cent was a signal of a potential crisis; Roubini and Setser (2004) even warned of the likelihood of a global crisis unless these imbalances were reduced. In emerging economies, current account crises typically occurred when there was a loss of confidence and a reversal of capital flows (a 'sudden stop', leading to sharp depreciation of the currency) (Edwards 2004). However, in the case of the crisis of 2007-2009, there was no reversal of capital flows to the United States and thus the US dollar did not collapse as predicted by some economists.

What then is the link between the global financial crisis and the imbalances leading up to 2007? It is argued that the flows of capital from China and other exporting countries fed into the US housing bubble and credit boom along with its depressing effect on bond yields. For this reason, mortgage rates remained low in the US even after the Federal Reserve started tightening monetary policy in 2004 (Baily et al. 2008). In addition, foreign borrowing directly funded both investment in US companies and the mortgage debt instruments that were at the centre of the sub-prime disaster. Overall, during the decade preceding the crisis, credit indeed grew most strongly in deficit countries, which was only possible to maintain through the ever-increasing flows of capital from surplus economies (Astley et al. 2009).

The search for higher yields, misperception of risk and lax financial regulation

Low interest rates and yields on government bonds ultimately encouraged investors to search for higher-yielding assets. Yields on emerging market or corporate bonds also narrowed relative to T-bills thus leading investors to search for higher returns; hence, the demand for mortgage-backed securities. In the United States, lenders took advantage of low interest rates to expand activities but, having exhausted credit-worthy borrowers, they turned to riskier segments of the market (sub-prime, alt-A and other non-standard loans).[21] These efforts at financial innovation were enabled by lax regulation of the financial system, which had begun in the 1990s and culminated in the Gramm-Leach-Bilely Act of 1999, which over-turned the restrictions on banks posed by the Glass-Steagall Act of 1933. On top of this regulatory aspect, lending was encouraged by political authorities who sought to enhance home ownership rates among disadvantaged and low-income groups (though the role of legislation in promoting sub-prime lending has been disputed).[22]

The combination of perverse incentives in the financial sector and goals of increasing homeownership rates created the setting for the emergence of so-called ‘sub-prime’ housing market in the US. Such ‘sub-prime’ borrowers who would not be regarded as credit-worthy under normal prudential standards were deemed to be profitable and worthy business targets by yield-seeking lenders and investors. Aggressive lending and a drop in lending standards during the period resulted in rapid growth in “non-prime” loans. By 2006, 48 per cent of all

[21] See Baily et al. (2008) for a detailed description of these issues.
[22] See the discussion on the role of the Community Reinvestment Act in the sub-prime crisis; for example, http://www.federalreserve.gov/newsevents/speech/kroszner20081203a.htm#f6.

mortgage originations were sub-prime, Alt-A or home equity, up from just 15 per cent in 2001. The deterioration in lending standards that accompanied this growth was clear: households were taking out adjustable rate mortgages (ARMs), sometimes with a loan-value ratio of 100 per cent (i.e. no initial equity). To entice borrowers, these loans had low initial repayments for the first few years (also known as 'teaser' interest rates) (Baily et al. 2008). In addition to the rise in these types of mortgages, speculation in states such as Florida helped fuel the housing bubble.

Table 1: The steps to financial crisis during the U.S. sub-prime meltdown

	Step	Risks
1.	Household borrows from the originator (broker or lending institution)	• Asymmetric information – broker did not fully know the credit worthiness of the borrower • Lax lending standards further deteriorated in 2004 and 2005 ('teaser' interest rates, no equity loans, no documents) • In some states of the US, the mortgage contract is 'without recourse to the borrower' – i.e. households can walk away from the mortgage
2.	Originator sells the mortgage to another financial institution	• Perverse incentives – Since the risk was sold on, originators had the incentive sell as many mortgages as possible (the 'originate-to-distribute' model)
3.	Financial institutions issue mortgage-backed securities (MBS)	• MBS issuers (particularly the government-sponsored enterprises, Fannie Mae and Freddie Mac) transferred thousands of loans to structured investment vehicles (SIVs), an off-balance sheet special purpose vehicle (SPV), which allowed these institutions to avoid capital requirements (allowing greater leverage). These SIVs had to be brought back onto the balance sheet once securities were downgraded after the crisis started. • Securities were separated into senior, mezzanine (junior) and non-investment grade (equity) tranches, but effective tranching relies on the assumption that proper risk analysis on the underlying assets was done (which was not the case). • Mortgages were selected from geographically diverse areas but the risk of correlated default was much higher than predicted. • Securitization increased rapidly since 2001, which was based on the growth in sub-prime and Alt-A loans.
4.	Private financial sector issues collateralized debt obligations (CDOs)	• CDOs issuers purchased different tranches of MBS and pooled them together with other asset-backed securities (backed by such assets as credit card, auto, business, and student loans) • CDOs 're-securitized' securities, allowing further re-distribution of risk (and hence, adding further complexity), converting some of them into new senior AAA-rated securities • Investment banks were not supervised like commercial banks and thus were not required to adhere to capital requirements. These banks could borrow short-term and hold risky longer-term assets with low levels of capital

		or reserves.
5.	Growth in credit default swaps (CDS)	• CDO issuers purchased CDS, which enabled them to receive AAA ratings. These purchases were not regulated as over-the-counter transactions.

Source: Adapted from Astley et al. (2009) and Baily et al. (2008).

As argued by Shiller (2008), 'The housing bubble was a major cause, if not *the* (author's emphasis) cause, of the subprime crisis and of the broader economic crisis...' (Shiller 2008: 29). However, due to the rapid increase in securitization of mortgage bonds, this was no ordinary housing bubble insofar it was not only domestic lenders that were exposed to the stability of the US housing market but investors around the globe. As captured in Table 1, mortgages were sold on by the originators to third-parties, which were then repackaged as mortgage-backed securities (MBS) and sold to investors. This enabled lenders to take the loans off their books. In particular, special investment vehicles (SIVs) were pressed into service and kept off the balance sheet, which allowed financial institutions to increase leverage and returns on their investments. Thus, mortgages that were in the past the domain of the traditional banking system could now be traded in open markets both within the US and outside its borders, beyond the scope of regulatory measures (because they were conducted as an over-the-counter transaction thus avoiding the regulations pertaining to the stock market).

The development of new complex financial products outside the scope of existing rules proved to be a major regulatory failing (Table 1). Overall, the central elements of this failure were: inadequate capital requirements on products such as the collateral debt obligations (CDOs); inadequate use of ratings and the way credit rating agencies themselves were regulated; and the incentives for risk-taking generated by structured remuneration arrangements (i.e. bonuses) (Astley et al. 2009; Baily et al. 2008, Bean 2009; Obstfeld and Rogoff 2009).

This combination of a misperception of risk, lax financial regulation and low returns on riskless assets fuelled the excessive leverage and investment in risky assets, namely the mortgage-backed securities. Sub-prime mortgages were at the centre of the crisis but were by no means the cause.

The trigger: bursting of the US housing bubble

Against this backdrop, the trigger for the crisis unsurprisingly was the US housing market. After the Federal Reserve started increasing interest rates, the delinquency rate on home loans began to rise in 2006 before gaining momentum in 2007 (Astley et al. 2009). The end of low, introductory interest ('teaser') rates on sub-prime loans was a major factor in driving this rise in delinquencies. This rise in bad loans subsequently led to the failure of a number of US mortgage lenders. Over 2007, hedge funds were hit hard by the defaults and subsequent unwinding of the sub-prime market. However, the real problem was that banks and other investors around the globe were exposed to this situation, but because of the complex nature of the financial products, particularly the collateral debt obligations and credit default swaps, did not know the size of their exposure and losses. Consequently, in mid-2007, financial institutions started to hoard liquidity, which led to a freezing of the market for asset-backed commercial paper. The credit crunch had begun. This, in turn, led to a further increase in perceptions of risk and decrease in lending, which was greatly exacerbated by the failure of Lehman Brothers in September 2008, an event that almost caused the financial system to implode.

3.2 The global economic and jobs crisis: the diverse nature of its impact on national economies

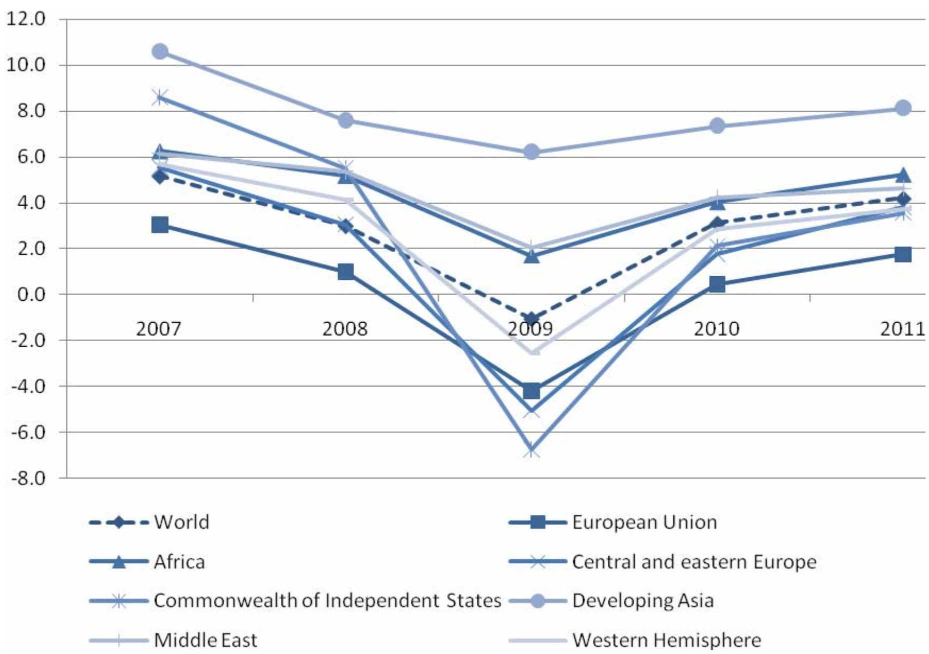
The financial crisis that started in the United States in mid-2007 eventually spread around the world to both advanced and developing economies resulting in the worst recession since the Second World War. Despite the severity of the crisis, there has been a great deal of diversity in how countries have been affected by the downturn in terms of both magnitude of economic contraction and subsequent deterioration of the labour market. This section reviews this variation in the impact in the context of countries' initial conditions and transmission channels.

The economic consequences of the global financial crisis

The United States was the epicentre of the crisis and its economy was hit directly by the meltdown in the sub-prime mortgage market along with the repercussions of the financial crisis and the ensuing credit crunch. As a consequence, the United States economy fell into recession in December 2007 and is estimated to have shrunk by 2.7 per cent in 2009.[23] However, this contraction is smaller than most G20 countries and smaller than the average for advanced economies (-3 per cent) (Figure 4).

An important theme of this paper is that, while this downturn may be the worst since World War II, the ensuing impact of the crisis on economies across the globe has been by no means the same. Indeed, diversity is a hallmark of the Great Recession of 2008-2009. Since the United States went into recession at the end of 2007, most advanced economies have joined the ranks, particularly those exposed through financial and later trade channels. But, at the same time, others, particularly in the Asia region (namely China and India but also Australia), have avoided a major contraction, despite their integration with the global economy. A number of low-income countries such as Ethiopia and Uganda also continue to grow strongly despite the downturn (Figure 5).

Figure 4: Economic growth across the world, real GDP growth (annual % change)

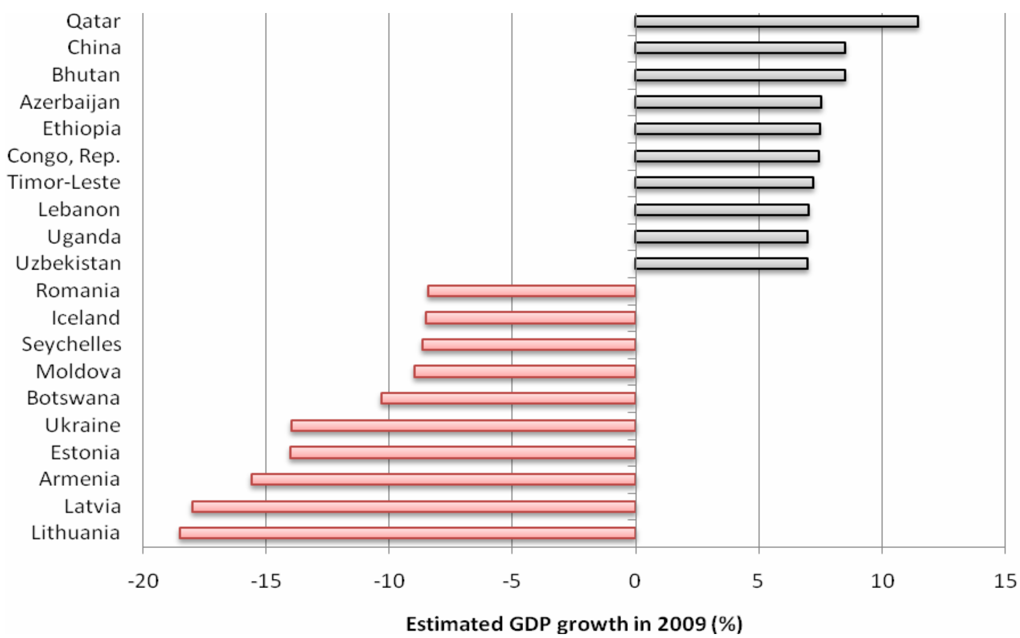


Source: IMF World Economic Outlook Database October 2009, data accessed February 24, 2010.

[23] See the IMF World Economic Outlook Database October 2009.

Indeed, in contrast to some of the early predictions, the impact of the crisis on developing countries has been far from universal. The most severely affected are middle-incomes countries, especially in Central and Eastern Europe and the Commonwealth of Independent States (Figure 4). This has been driven by the combination of the credit crunch and domestic imbalances such as large current account deficits and housing bubbles (the two being not unrelated). The countries estimated to contract by the greatest margin include Lithuania, Latvia, Armenia, Estonia and Ukraine, which are expected to experience a decline in GDP of 14 per cent or more in 2009 (Figure 5). These are depression-like contractions. The overall similarities between the 'Great Depression' of the 1930s and the 'Great Recession' of 2008-2009 are presented in Box 1.

Figure 5: The fastest growing and contracting countries in 2009



Source: IMF World Economic Outlook Database October 2009, accessed on February 4, 2010.
Notes: GDP growth figures for 2009 are estimates. Afghanistan is excluded due to its specific economic circumstances.

Box 1: From the Great Depression of the 1930s to the 'Great Recession' of 2008-2009

It is, by now, *de rigueur*, to refer to the global recession of 2008-2009 as the worst since the Great Depression of the 1930s. Certainly, the world economy contracted for the first time since the end of the Second World War. In addition, some scholars have noted that: (1) the rate of contraction in global trade between its peak in 2007 and April, 2008 was worse than the Great Depression; (2) the rate of global industrial production declined at a faster rate between mid-2007 and the first four months of 2008 than during the 1930s; (3) the proportionate decline in global stock market wealth was rather dramatic by the standards of the Great Depression.[24] One estimate suggests that household wealth in the USA declined by 17 per cent in 2007-2008, while it declined by a mere 3 per cent in 1928-29.[25] Viewed from such perspectives, one can suggest that the notion of the 'Great Recession' is justified. On the other hand, it would be naïve to argue that, in terms of the duration of the recession and the sheer impact on jobs and livelihoods, the Great Recession of today is equivalent to the Great Depression of yesterday, despite the shared nature of the prefix. During the 1930s, the decline in industrial production lasted for three years.

This is certainly not the case today.[26] Unemployment reached 25 per cent in the USA during the trough of the 1930s. In both 2008 and 2009, even the worst affected economies did not exhibit unemployment rates in that range (although, currently, unemployment rates are not directly comparable to unemployment statistics from the Great Depression). Indeed, comparative evidence suggests that job losses during the global economic crisis of 2008 and 2009 were lower than in previous recessions in the post-war period. This does not necessarily mean that the labour market consequences of the global recession of 2008 and 2009 were marginal. For a variety of reasons – and especially in the industrialized world – job retention rates by firms have been particularly pronounced. What this means is that, unless there is a broad-based recovery, millions of jobs continue to be at risk.[27]

Due to its links with the United States, most of Latin America fell into a deep recession (a contraction of 2.1 per cent has been estimated for 2009), though there is consideration variation within the region. Mexico has been hit hardest and is expected to have contracted by 7.1 per cent in 2009. In comparison, Brazil grew by 0.1 per cent (World Bank 2010).

Most low-income countries, however, evaded a recession, but the growth slowdown witnessed in these countries has nonetheless negative implications for poverty. Overall, the smaller, more open economies have been hit harder, while the larger emerging economies have been supported by domestic demand and government spending. China and India have notably continued to grow strongly during the crisis.

Greater diversity in the impact of the crisis on the labour market[28]

Moving from the variation in the contraction of output to the impact on the labour market reveals that there is even more diversity in outcomes across countries. In OECD countries, the unemployment rate has increased from 5.7 per cent in the third quarter of 2007 to 8.6 per

[24] Eichengreen, B and O'Rourke, K (2009) 'A Tale of Two Depressions', 1 September, www.voxeu.org.
[25] Romer, C (2009) 'From Recession to Recovery: The Economic Crisis, the Policy Response, and the Challenges We Face Going Forward', Testimony before the Joint Economic Committee, October 22
[26] Eichengreen and O'Rourke (op.cit).
[27] IILS (2009) The World of Work Report, Chapter 1, Geneva: ILO.
[28] For an official assessment by the ILO on the labour market consequences of the crisis in G20 countries, see http://www.ilo.org/pls/apex/f?p=109:12:0.

cent in the third quarter of 2009, representing a rise of 10.1 million individuals without jobs.[29] According to the ILO's Global Employment Trends (January 2010), the number of unemployed persons is estimated at 212 million in 2009, an increase of almost 34 million on the number in 2007 (ILO 2010b). The five hardest hit OECD countries in terms of a surge in the unemployment rate from 2007Q3 to 2009Q3 are Estonia (+10.9 percentage points), Spain (+10.3 ppts), Ireland (+8.1 ppts), United States (+4.9 ppts) and Turkey (+4.6 ppts). The average increase in the OECD is 2.9 percentage points. At the same time, a number of countries have experienced a mild impact on the labour market in terms of rising unemployment. In Poland and Germany, the unemployment rate has, in fact, decreased over this period (by 1.2 and 0.7 percentage points, respectively). In others such as Austria, the Slovak Republic, Republic of Korea and the Netherlands, the change in unemployment rate has been marginal.

Analysing output and unemployment adjustment jointly provides a mapping of OECD countries that reflects both the diversity and complexity of the crisis (Table 2 and Figure 6). For example, Norway and Malta have experienced only a mild economic contraction and labour market impact, while others including Austria, Germany and the Netherlands have avoided a major deterioration in the labour market despite a greater fall in output. In comparison, unemployment in the United States has risen far more than other countries with a comparable economic contraction, which reflects the flexibility of the US labour market. A similar story is evident for Denmark, Spain, Slovakia and Turkey. The worst hit countries are Estonia, Ireland, Lithuania, and Latvia, which have all suffered both a severe fall in output and deterioration in the labour market. Australia is an outlier in this matrix as it is the only country to have avoided negative growth in 2009. As illustrated by Figure 5, this data suggests that for every 1 percentage point decrease in the GDP growth rate, the unemployment rate increases by a further 0.47 percentage points.[30]

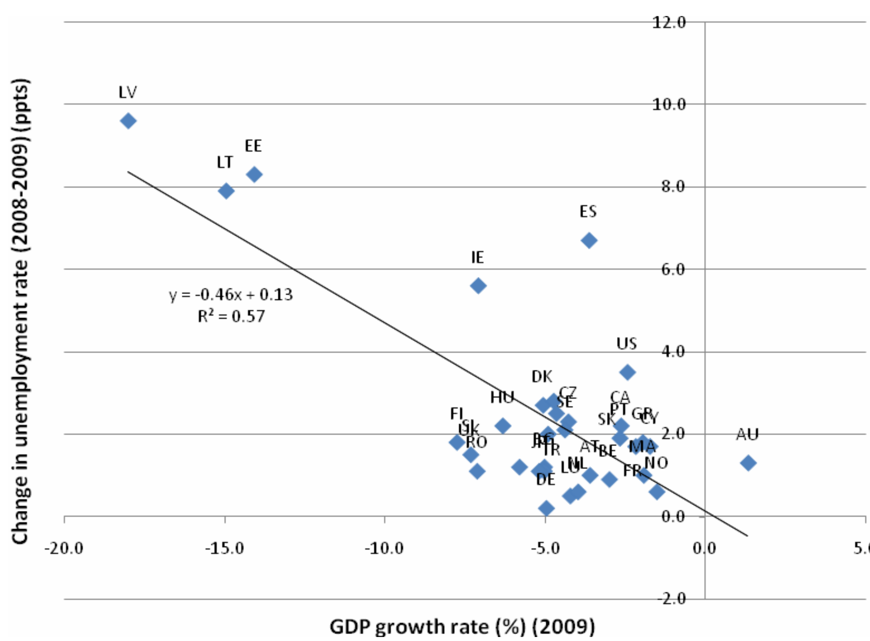
[29] See OECD labour force survey data, http://stats.oecd.org/Index.aspx?DatasetCode=LFS_SEXAGE_I_R
[30] This is line with empirical estimates of Okun's Law. The relationship between economic growth and unemployment rates has been famously described by Okun (1962) in what became known as Okun's Law. Estimates of Okun's statistical relationship for the United States indicate that there is approximately a 2 per cent decrease in output for every 1 per cent increase in unemployment. See also such studies as IMF (2010: Chapter 3) and Schnabel (2002).

Table 2: Relationship between GDP growth (2009) and change in unemployment rate (from 2008 to 2009) - Australia, Canada, Turkey, United States and the EU

	Mild labour market impact	Medium labour market impact	Severe labour market impact
Mild economic contraction	Norway (1.0, -1.9) Malta (0.6, -1.5)	Australia (1.3, 1.3) Canada (2.2, -2.6) Cyprus (1.7, -1.7) France (1.7, -2.2) Greece (1.8, 2.0)	United States (3.5, -2.4)
Medium economic contraction	Austria (1.0, -3.6) Belgium (0.9, -3.0) Germany (0.2, -5.0) Italy (1.1, -5.0) Japan (1.1, 5.2) Luxembourg (0.5, -4.2) Netherlands (0.6, -4.0)	Bulgaria (1.2, -5.0) Czech Republic (2.3, -4.3) Sweden (2.1, -4.4) United Kingdom (2.0, -4.9)	Denmark (2.7, -5.1) Spain (6.7, -3.6) Slovakia (2.5, -4.7) Turkey (2.8, -4.7)
Severe economic contraction	Romania (1.1, -7.1)	Finland (1.8, -7.8) Croatia (1.2, -5.8) Hungary (2.2, -6.3) Slovenia (1.5, -7.3)	Estonia (8.3, -14.1) Ireland (5.6, -7.1) Latvia (9.6, -18.0) Lithuania (7.9, -15.0)

Source: IMF WEO Database April 2010, EUROSTAT Labour Force Survey Database; calculations are authors.
Notes: Figures are annual. Figures in parentheses are for change in unemployment rate and GDP growth rate in 2009, respectively. Mild = less than or equal to the 25th percentile for that variable; Medium = more than the 25th percentile and less than the 75th percentile; Strong = more than the 75th percentile.

Figure 6: The relationship between economic contraction and deterioration in the labour market - Australia, Canada, Turkey, United States and the EU



Source: see Table 1.

Adjusting to a labour demand shock: evidence from OECD countries

Overall, there are three main channels for adjustment to external shocks in labour demand at the firm-level: working time (hours worked), number of workers and wages/non-wage benefits.[31] In general, firms tend to adjust hours of work more rapidly than the number of workers due to cost considerations and the need to retain workers (due to firm-specific capital) (this dimension is also known as internal adjustment). The sensitivity of working hours to the business cycle also varies across sectors depending on the importance of these factors (OECD 2009). Cutting wages and other benefits of remaining workers may reduce labour costs, but has an adverse social impact. That said, nominal wages tend to be rigid due to institutional reasons and because employers are reluctant to cut wages.[32] Ultimately, a sharp drop in economic activity, leads to dismissals, mass layoffs, plant closures, and hiring freezes (external adjustment), which all contribute to rising unemployment that has been described above.

During the global financial crisis, there has been considerable variation in the adjustment of working hours, wages and employment across countries. As captured in Table 3, adjustment in the manufacturing sectors of European countries can be categorized on the basis of two dimensions: external - employment and internal - working hours. In the resulting matrix, nine sets of countries emerge. For example, as much discussed during the crisis, employment in Germany has adjusted by a small margin, while hours have decreased more than in most European countries (lower left corner). In Germany's case, this was driven by employer's concerns of holding on to skilled workers, which was subsequently supported by a subsidized reduced working-time scheme (*Kurzarbeit*) and other internal flexibility measures that were utilized by employers to reduce hours worked (such as time accounts). In contrast, adjustment to employment has been higher in countries with more flexible labour markets such as the United Kingdom. In the majority of European countries, adjustment has taken place in both employment and hours to a moderate degree.

[31] See Cazes et al. (2009) for more details.
[32] See the discussion on wage rigidity in Akerlof and Shiller (2009) and Bewley (1999)

Table 3: Internal versus external adjustment: growth in employment and working time in the manufacturing sector, selected European countries, 2008-2009

	Strong hours adjustment	Moderate hours adjustment	Weak hours adjustment
Strong employment adjustment	Estonia (-4.8,-16.4) Slovakia (-2.8, -11.5)	Denmark (-1.4, -14.3) Spain (-1.5, -14.7) Latvia (-0.8, -16.1) Lithuania (-1.5, -13.1)	United Kingdom (-0.8, -16.5)
Moderate employment adjustment	Ireland (-3.1, -11.4) Austria (-3.6, -5.2) Slovenia (-2.8, -8.7)	Belgium (-0.8, -7.6) Bulgaria (-2.2, -7.3) Czech Rep. (-1.8, -9.8) France (-1.3, -5.6) Cyprus (-1.0, -6.7) Poland (-1.0, -5.3) Romania (-1.0, -8.0) Finland (-2.1, -9.2) Sweden (-2.2, -10.1)	Hungary (-0.8, -7.2) Netherlands (-0.6, -7.8) Croatia (-0.7, -9.5)
Weak employment adjustment	Germany (-3.4, -3.1) Iceland (-2.7, 0.6*)	Italy (-1.8, -4.6) Malta (-2.2, 0.8*)	Greece (-0.7, -4.5) Luxembourg (5.2*, 3.9*) Portugal (0.5*, -4.6) Norway (-0.3, -4.7)

Source: EUROSTAT Labour Force Survey Database; authors' calculations.
Notes: Figures are annual. Figures in parentheses are for changes in actual weekly hours worked and employment in the manufacturing sector (NACE Rev.2), respectively. * - Denotes positive growth from 2008 to 2009. Mild = less than or equal to the 25th percentile for that variable; Medium = more than the 25th percentile and less than the 75th percentile; Strong = more than the 75th percentile.

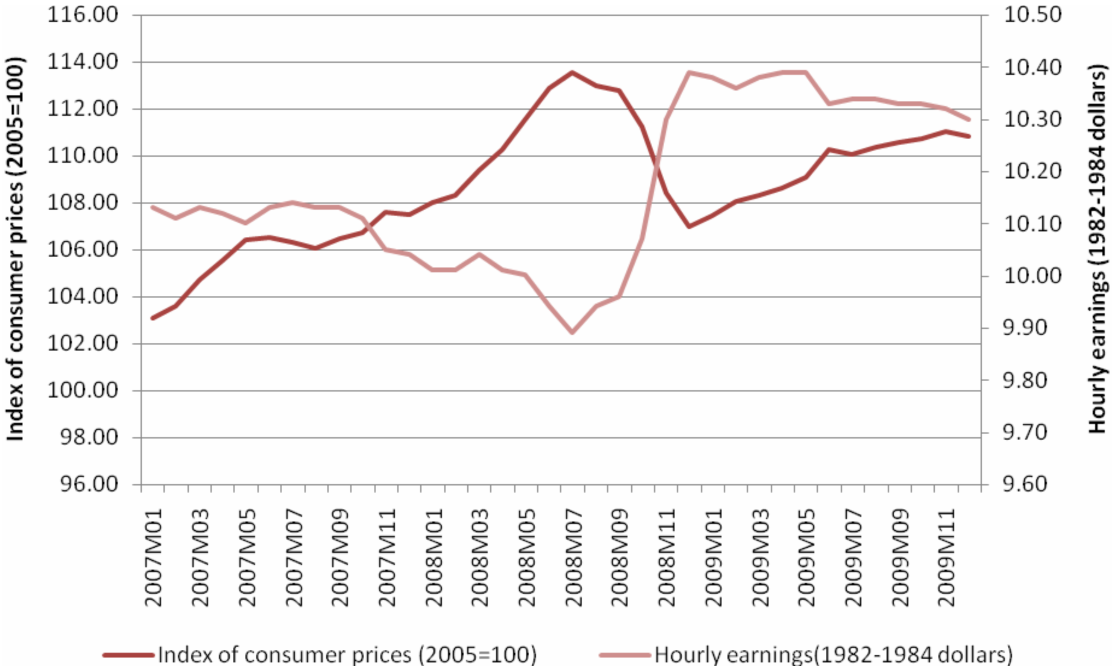
This diversity in employment and working time adjustment across European countries is due to differences in economic factors (sectoral impact, transmission channels) and institutions (such as the degree of unionization, wage flexibility, dismissal protection legislation), along with the impact of government policies on the adjustment process (for example, the reduction in working hours through work-sharing schemes).

Analysing wage adjustment since the onset of the crisis in 2007 is more complex due to a number of factors: lack of data on earnings for 2009; comparison between changes in nominal and real wages; and differences between adjustment in hourly wages and weekly/monthly wages. Nonetheless, based on available data, it is possible to derive a number of tentative conclusions regarding wage adjustment during the global financial crisis. Firstly, data for OECD countries suggests that nominal hourly earnings have not fallen in most countries, which is in line with the findings of the literature on downward wage rigidity.[33] At the same time, growth in nominal wages has slowed since late 2008.

Secondly, real wages have, in many cases, risen because of either a fall in prices (for example United States) or a slowdown in inflation (disinflation) (for example European Union). In the case of the US, the real average hourly earnings were decreasing over the pre-crisis period due to an increase in consumer prices (Figure 7). Since the onset of the recession, prices fell quickly, and consequently, real hourly earnings have increased. This trend in the US illustrates the importance of movements in prices for the real wage (i.e. variation is driven more by the denominator) and that the crisis has, in fact, contributed to correcting a deterioration in real hourly wages that was driven by rising inflation (and stagnant nominal wages) prior to the downturn of 2008-2009. At the same time, it should be noted that household incomes in many countries have been hit through the reduction in working hours, unless it has been subsidized as is the case in many European countries (though schemes typically only partly subsidize lost income). Overall, once more detailed data becomes available, clearer findings on wage adjustment will be possible.

[33] Data for the period 2008Q3 to 2009Q3 reveals that nominal hourly earnings in the manufacturing sector only fell from 2008Q3 to 2009Q3 in Canada, Japan, Korea, Luxembourg, and Portugal (out of a total of 22 OECD countries).

Figure 7: Changes in consumer prices and real hourly wage in the United States during the crisis, 2007-2009 (monthly data)



Source: Bureau of Labor Studies, Current Employment Estimates database (hourly earnings); EUROSTAT database of harmonized index of consumer prices (HICP) (index of consumer prices).
Notes: Data is monthly for the period January 2007 to December 2010. Hourly earnings are in 1982-1984 US dollars, averaged over the entire private sector.

Which groups were hit hardest?

Beyond these more aggregate dimensions, the impact of the global financial crisis on labour markets can also be disentangled in terms of how it has affected vulnerable segments of the population. In this respect, five dimensions can be identified, which define the groups that were hit hardest during the global downturn:

- Gender;
- Age;
- Skills-level and education;
- Type of employment contracts; and
- Country of origin.

Firstly, the crisis has in general hit men harder in advanced economies, particularly younger men.[34] For example, from 2008 to 2009, the unemployment rate in European Union's 27 member States increased by 5.2 and 2.9 percentage points for young men and women (aged less than 25), respectively, while it rose by a lower margin for prime-age men (2.0 points) and prime-age women (1.2 points). This phenomenon is not a case of 'reverse' discrimination; rather, it due to the fact that young men were working in sectors that were badly affected by the global downturn such as construction and manufacturing. In addition, young people entering the labour market have been competing for fewer vacancies with older individuals who have lost jobs but nonetheless have more experience and skills.

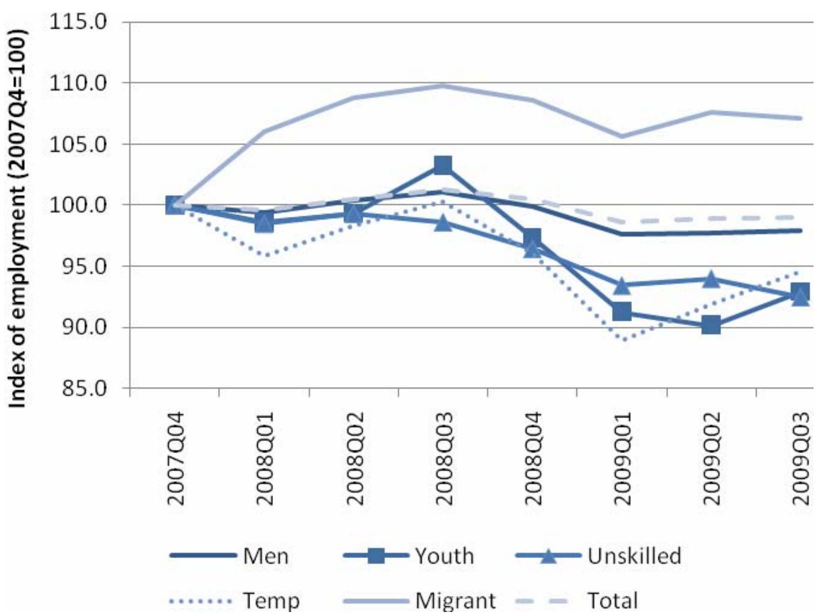
Secondly, workers with lower levels of education have been more vulnerable to the impact of the crisis. This is again due to their over-representation in sectors that have been badly-affected, particularly construction.[35] This can be explained by the reluctance of employers to fire highly-skilled workers during a downturn because of the costs involved in hiring, which were on the increase prior to the global financial crisis as a consequence of a growing skills shortage.

Contract status also plays an important role in determining the vulnerability of workers to losing their jobs. Prior to the crisis, precarious contracts were on the rise in a number of countries, particularly in Europe (for example, the increase in temporary work in Germany). Once the crisis hit, employers first resorted to cutting back on staff employed on temporary contracts, which is far cheaper and more rapid than attempting to make redundancies of permanent staff who are protected by legislation or collectively bargained agreements. For this reason, temporary workers dominate such sectors as construction, which are volatile and require considerable flexibility. For instance, in Spain, which had before the onset of the crisis the highest proportion of temporary workers in the European Union, the share of these workers in total employment fell from 30.1 per cent in the fourth quarter of 2008 to 25.1 per cent in the last quarter of 2009. The main challenge for policymakers is that these workers have limited access to social protection measures such as unemployment insurance.

[34] See Verick (2009) for more details on this issue. It must also be noted that female workers were hit harder than male workers in the export-oriented industries of East Asia. See, for example, Green, King and Miller-Dawkins (2010).
[35] As highlighted in OECD (2009), business-cycle sensitivity of working hours decreases with educational attainment.

Another group that has been particularly vulnerable are migrant workers, not just in countries that have a high proportion of these workers such as in the Middle East but also in high-income countries. For example, non-Western Dutch immigrants experienced a greater increase in the unemployment rate than Dutch-born citizens (around 3 percentage points from 2008Q3 to 2009Q3 compared to 1.2 percentage points) (Central Bureau of Statistics 2009). In aggregate, the evidence suggests that though employment of foreign-born workers fell in the European Union over the crisis period, it remains above the pre-crisis level (Figure 8). This may reflect the fact that foreign-born workers are more willing to accept worse employment conditions, or find alternative employment in response to lay-offs, which is driven by the lack of access to unemployment insurance and other social safety nets.

Figure 8: Adjustment in employment across different segments of the population, European Union (27 member States), 2007Q4-2009Q3



Source: EUROSTAT Labour Force Survey Database, http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/data/database; authors' calculations.
Notes: The figures presented are the aggregate level of employment in the 27 member States of the European Union, which have been converted into an index (2007Q4=100); Youth = employment level of individuals aged 15 to 24; Unskilled = employment level of individuals with pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997); Temp = number of employees on temporary contracts; Migrant = employment level of foreign-born workers.

To summarize the different trends among these vulnerable groups, Figure 8 depicts changes in employment in the European Union over the crisis period for men, youth, the unskilled, workers on temporary contract and migrant workers. These trends indicate that, after the third quarter of 2008, employment has contracted more for youth, individuals with low educational attainment and workers on temporary contracts.

Departing from this disaggregated view, it is crucial to consider the overall labour market implications for household welfare. In this context, recent evidence indicates that poor households in the United States have borne disproportionately more of the burden in some of the crisis-affected countries. According to Sum and Khatiwada (2010), households in the lowest decile (those earnings $12,160 or less) were experiencing on average an unemployment rate of 30.8 per cent in the fourth quarter of 2009, in comparison to just 3.2 per cent for households in the top decile (those earning $138,700 or more). A similar disparity is found for underemployment (individuals working part-time due to economic reasons). Sum and Khatiwada (2010) conclude: **'**A true labour market depression faced those in the bottom two deciles of the income distribution, a deep labour market recession prevailed among those in the middle of the distribution, and close to a full employment environment prevailed at the top. There was no labour market recession for America's affluent.**'** (Sum and Khatiwada 2010: 13).

Some developing countries have been hit hard, while others have been more resilient

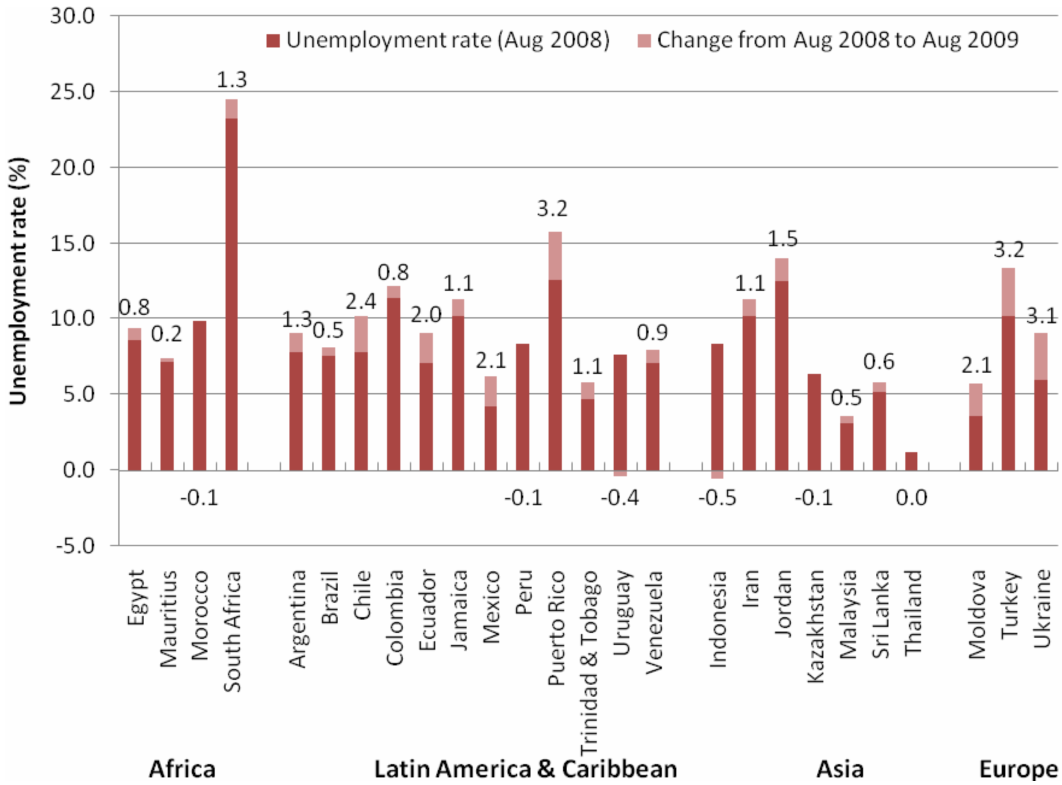
In developing countries, it is more difficult to form strong conclusions on the labour market situation in developing countries due to the lack of data. In previous crises, laid-off workers in developing countries have been typically forced to take up employment in the urban informal or rural economies (i.e. a reversal of rural-urban migration flows), which act as absorbing sectors during economic downturns.[36] As also witnessed during previous downturns, real wages can decline in developing countries, resulting in rising poverty (for example in Indonesia during the aftermath of the East Asian financial crisis).

Based on available figures, the labour market impact of the global financial crisis in developing countries includes both rising unemployment to changes in other labour market outcomes (Figure 9). Middle-income countries such as Mexico and Turkey have experienced

[36] See, for example, the case of the East Asian Crisis in Fallon and Lucas (2002).

a severe economic contraction over 2009, resulting in rapidly increasing unemployment (by 2.1 and 3.2 percentage points respectively). Overall, middle-income countries in Latin America and the Caribbean and CIS countries have experienced the largest increases in unemployment rates.

Figure 9: Changes to unemployment rates in selected middle-income countries, August 2008 to August 2009.



Source: National labour force surveys collected by the ILO Department of Statistics.
Notes: Figures for Ukraine are based on the difference between June 2009 and September 2008.

In the case of South Africa, one of the hardest-hit African countries, employment fell by almost 900,000 from 2008 to 2009. Despite this large contraction, the official unemployment rate only increased from 23.2 per cent in the third quarter of 2008 to 24.5 per cent in the third quarter of 2009. In fact, the main effect of the crisis-induced recession in South Africa has been rising discouragement rather than a surge in official unemployment, which has increased more for vulnerable segments of the population, namely, uneducated, black South Africans (Verick 2010).

At the same time, large developing countries appear to have emerged in better shape than expected. In India, a sample survey carried out by the Ministry of Labour and Employment shows that about half a million workers have lost their jobs during October-December 2008. However, more recent figures indicate that employment has since recovered: employment has increased by around 500,000 during the quarter July-September 2009 over the previous year, reflecting the overall resilience of the Indian economy.[37] Brazil fell into a recession in the first half of 2009 with unemployment rising to 8.6 per cent. However, by the third quarter of 2009, the economy was growing again with the unemployment rate returning quickly to the pre-crisis level. Moreover, formal employment creation in Brazil continued to grow: between January and October 2009, 1.2 million formal jobs had been added (ILO 2010b).

As witnessed in previous downturns such as the East Asian crisis, informality tends to rise as laid-off workers typically do not have any form of social protection. Though it is too early to detect a clear trend in this dimension, the emerging pattern in the wake of the global financial crisis is more nuanced. For instance, employment in the informal sector in South Africa contracted over most of the crisis period (Verick 2010). Informality in Indonesia was on a downward trend before it started increasing in response to the impact of the crisis. The share of informal employment in Indonesia stood at 63.1 per cent in February 2007, which continued to fall, reaching 61.6 per cent in February 2008.[38] The share has since grown to 62.1 per cent, which reflects that the impact of the crisis has been relatively mild in comparison to other middle-income countries, particularly those located in Latin America, Central and Eastern Europe, and the CIS region. Though data is not yet available on household income, poverty has, however, most likely increased in badly-affected developing countries.

[37] See the Report of the Effect of the Economic Slowdown on Employment in India (July-September 2009) and other editions produced by the Labour Bureau, Ministry of Labour & Employment, Government of India, http://labourbureau.nic.in/reports.htm.
[38] See Indonesia's Badan Pusat Statistik, www.bps.go.id.

4 Mitigating the effects of the crisis and securing a sustainable recovery: the effectiveness of policy responses

As the global financial crisis unravelled, governments across the globe increasingly recognized the severity of the downturn and the urgency to intervene in order to avoid a catastrophic collapse of the financial markets and real economy. The response has consisted of three main interventions: 1) bailouts and injections of money into the financial system to keep credit flowing; 2) cutting interest rates to stimulate borrowing and investment; and 3) extra fiscal spending to shore up aggregate demand. These measures have sought to prevent further economic deterioration and ultimately keep workers in jobs where possible and help create new jobs to provide opportunities for the unemployed. Overall, this response has helped avoid a far more severe downturn, though effectiveness has varied considerably across countries. In this context, this section summarizes both the macroeconomic and labour market policy responses.

4.1 Macroeconomic policies, stimulus packages and the composition of policy interventions: an overview

Systemically important nations, especially from the developed world, have engaged in historically unprecedented expansionary monetary policy, entailing both aggressive reductions in policy rates and quantitative easing. This has been combined with the assumption of contingent liabilities on behalf of the banking system (especially through deposit guarantee schemes) and massive support – running into trillions of dollars – for beleaguered financial institutions. At the same time, policymakers across the world held the view that monetary and financial policies alone could not cope with the global recession of 2008-2009. A UNDP study maintains that there are now 48 countries for which there are reliable data on fiscal stimulus packages. Collectively, the fiscal stimulus packages account for 3.9 per cent of world GDP (as measured in 2008) and 4.8 per cent of their national GDPs. 20 out of the 48 can be classified as developing countries.[39]

The UNDP study highlights the point that social protection expenditures account for a relatively modest proportion of the announced fiscal stimulus packages – about 25 per cent of

[39] See Zhang et al. (2010).

the total – but does not analyze the composition of the range of policy interventions. An important ILO study fills this gap by highlighting the composition of policy interventions in 54 which includes a mix of developed and developing countries and G20 members. The ILO study (2009a) examines policy interventions in four broad areas: stimulating labour demand, supporting jobs, job-seekers and unemployed; expanding social protection and food security; using social dialogue and protecting rights at work. The general conclusion is that some interventions (such as additional public expenditure on infrastructure and extending credit to small and medium enterprises) have been more popular than others (such as providing enhanced protection to migrant workers). Table 4 complements this effort by delineating how policy interventions have varied across different thematic areas (macroeconomic policy, social protection measures, etc.) in a sample of 20 regionally representative low and middle income countries. As can be seen, some policy interventions have been more frequently used than others. A majority of countries in the sample have engaged in expansionary fiscal and monetary policies and support for small and medium enterprises. Much less effort has been expended in boosting income and employment protection and in taking account of the particular circumstances of vulnerable groups (informal economy workers, young people and migrant workers).

Table 4: A typology of policy responses to the global recession of 2008-2009 in 20 low and middle income countries, December 2009

Policy Area	Specific interventions	Frequency (%)
Monetary and financial policy	Interest rate reductions	75
	Quantitative easing	40
	Deposit guarantee schemes and other measures to protect the financial sector	75
Fiscal policy	Overall tax and expenditure adjustments	65
	Public investment in infrastructure	100
Exchange rate/capital account	Exchange rate depreciations	40
	Export financing or tariff reduction	45
Income and employment protection	Efforts to limit lay-offs	30
	Unemployment benefits	25
	Employment guarantee schemes	20
	Minimum wages	40

Social Protection	Cash and in-kind transfer programmes	45
	Additional social expenditure	65
Increasing employability	Training and re-training	45
	Public employment services	20
Group-specific initiatives	Informal economy workers	10
	Youth	10
	Migrant workers	30
	Public sector employees	20
Sector-specific initiatives	Support for SMEs	70
	Support for key export sectors	20
	Support for 'green' jobs	10

Sources: Compiled from on-line media reports and country-specific websites.
Notes: The countries included in this analysis are: Asia: China, Indonesia, Vietnam, India, Pakistan, and Nepal; Middle East and North Africa: Egypt, Arab Rep., and Jordan; Europe & Central Asia: Serbia and Azerbaijan; Sub-Saharan Africa: Congo, Dem. Rep., Liberia, Mali, South Africa, Tanzania, Uganda, and Zambia; Latin America & Caribbean: Brazil, Honduras, and Peru.

While the analyses of the composition of policy interventions are useful, it is necessary to comprehend how effective they have been in coping with the global recession. An in-depth knowledge of the efficacy of country-specific policy interventions is missing, but an illustration is offered of two cases from the G20 – the United States and Indonesia – that have enacted fiscal stimulus packages. The former was the most publicised and has been subjected to multiple evaluations. The launch of the latter was supported by an official evaluation. In both cases, the outcomes have been modest – see box 2 on United States and box 3 on Indonesia.

What does the evidence show in terms of the collective ability of the G20 to close the output gap? In a report prepared for the G20 Leaders Summit held on September 24, 2009, the ILO estimated that the overall size of the fiscal expansion measured as a proportion of GDP (including both discretionary expenditure and automatic stabilizers) can, at best, offset 43 per cent of the employment gap engendered by the current recession in the G20 countries. This conclusion is supplemented by exploring the impact and implications of the composition of fiscal stimulus packages that have been adopted.

What guidelines should policymakers follow in determining the composition of fiscal stimulus packages? One approach is to use ex-post values of fiscal multipliers by type of policy measures, which can be broadly categorised as spending and revenue measures. The objective is to use these ex-post values or benchmarks to allocate resources in such a way that the policy interventions maximize the fiscal multipliers.

There is a sizeable literature embodying estimates of fiscal multipliers by type of measures. These estimates have been compiled by the IMF and OECD. A simplified version is presented in Table 5, which illustrates that the mean values of fiscal multipliers are highest for capital expenditure and lowest for corporate tax reductions. In general, spending measures have higher multipliers than tax measures.

Table 5: Fiscal multipliers by type of measure

Type of fiscal measure	**Mean values of multipliers**
Capital expenditure	1.1
Other expenditure	0.65
Tax cuts	0.45
(source)	**(Spilimbergo et al. 2009)**
Government expenditure	1.1
Corporate tax cuts	0.3
Personal income tax cuts	0.5
Indirect tax cuts	0.5
Reductions in social security contributions	0.4
(source)	**(OECD 2009)**

Notes: these multipliers are derived from studies of high income economies

Box 2: The US fiscal stimulus package: an assessment

The US fiscal stimulus package - known as American Recovery and Reinvestment Act (ARRA) - was enacted into law on February 17, 2009. Its original size was US$825 billion dollars to be spread over 2009-2011. It was subsequently reduced to US$787 billion dollars after protracted political negotiations in Congress and the Senate. If one takes out the outlays on the State Fiscal Stabilization Fund and state fiscal relief, the size of ARRA at the federal level stands at US$531 billion. The majority (53 per cent) of this amount can be attributed to tax cuts. 23 per cent account for government purchases and the balance is taken up in the form of transfers.

There are now multiple evaluations (two of which are official versions) of ARRA that enable one to compare the projected job creation rates from the fiscal interventions with what has actually been accomplished so far. The US administration expected that ARRA would create 3.5 million jobs by the end of 2010. This was well within the range of estimates offered by others (example Congressional Budget Office, Levy Institute). What strikes one is the variation in the range of estimated impact of ARRA on employment. They range from a modest 300,000 jobs created to 1.5 million jobs created by the third quarter of 2009. This has to be contrasted against the fact that the labour market has shed 8.4 million jobs since December 2007. The latest estimates suggest that over the next three years 11.1 million jobs would have to be created to restore the pre-crisis unemployment rate. It thus seems fair to conclude that ARRA has had a modest outcome in the specific sense that it staved off a much bigger surge in unemployment and probably avoided a depression, but did not come close to restoring full employment.

There are several likely explanations for the modest outcome. One possibility is that the US administration's initial forecasts about the depth and duration of the recession, and its expected impact on the labour market, were rather optimistic. This perhaps influenced the size of the fiscal policy response and made it less ambitious than it otherwise would have been. One 'back-of-the envelope' calculation (Baker 2009) suggests that the current employment and output gap can only be bridged by a fiscal stimulus package that is more than three times larger than ARRA. Some leading economists (example Paul Krugman and Laura Tyson) have lent their voices to calls for a new round of fiscal stimulus. It also appears that the rate of disbursing the allocated monies to various projects have been quite slow. So far, only about 30 per cent of the committed funds for 2009 have been spent. Even by 2010, 75 per cent of ARRA funds are scheduled to be utilized. Concerns have been raised about the current composition of ARRA. One study (Zandi 2009) shows that the mean values of fiscal multipliers range between 0.30 and 0.49 for (permanent) tax cuts, but they are substantially higher for government purchases and transfers (between 1.38 and 1.73). Hence, one can justify the claim that the '…government could have achieved …more at the same cost by skewing the stimulus package towards outlays rather than tax cuts' (Levy Institute 2009).

Source: Andrews (2009); Baker (2009); Burtless (2009); Congressional Budget Office (CBO) (2009); Council of Economic Advisers (CEA) (2009; Romer (2009); 'Recovery.gov, 'Timeline', July 20; Zacharias et al. (2009); Romer and Bernstein (2009); Zandi (2009); Bivens (2009; and Shierholz (2010).

Box 3: The Indonesian fiscal stimulus package: an assessment

Official projections suggest that the global economic crisis will reduce the Indonesian economic growth rate to 4.0 – 4.7 per cent in 2009 from a pre-crisis growth rate that reached above 6 per cent per annum in 2007 and 2008. The Indonesian government has responded to the projected growth slowdown with a combination of financial, monetary and fiscal policies. A fiscal stimulus package has been enacted (with effect from 1 March, 2009) amounting to 1.4 per cent of GDP.

Tax cuts represent approximately 79 per cent of the overall fiscal package of Rp 73.3 trillion. They consist of reductions in both indirect taxes and income taxes. The balance is directed towards infrastructure expenditure (Rp 12.2 trillion) and direct subsidies (Rp 4.8 trillion). Thus, a modest amount has been allocated towards enhancing job-creating public expenditure. It is widely acknowledged that tax cuts are not as effective as job-creating public expenditure or a scaled up social protection system in dealing with the consequences of a systemic global economic downturn.

An official estimate claims that 93 per cent of the earmarked expenditure was accomplished by end-2009 and that an estimated 1 million short-term jobs were created. A 'simulation' exercise was also undertaken by the Indonesian government to work out how the unemployment rate will behave with expansionary fiscal policy and without it. The exercise that was undertaken demonstrated that fiscal expansion along the lines described here would contain the rise in the unemployment rate to 8.3 per cent in 2009. In the absence of the fiscal interventions, the 'simulation' exercise shows that unemployment will rise to 8.9 per cent. Had the pre-crisis growth rates prevailed, the aggregate unemployment rate would have declined to 7.4 per cent. These estimates suggest that the impact of the fiscal stimulus package is modest.

Source: Ministry of Finance (2009); Soesastro (2009); Islam and Chowdhury (2009).

The policy message embedded in Table 5 is that governments enacting fiscal stimulus packages should concentrate on spending measures rather than tax cuts. Furthermore, within the category of spending measures, governments should focus on capital expenditure, such as investments in employment-intensive infrastructure. This will yield higher dividends in terms of the impact on output and jobs for any given size of fiscal expansion. A simple numerical example that draws on the parameters in Table 4 can be used to substantiate this point.

Consider country X. Assume that policymakers decide to go for a 'diversified' approach, that is, they adopt a fiscal policy design entailing a mix of tax cuts (say, 60 per cent of the overall fiscal stimulus package) and spending measures (say, 40 per cent of the overall package). Assume too that the size of the discretionary fiscal stimulus is US$100 billion for a given period. The (weighted average) value of the fiscal multiplier is 0.71 yielding a projected increase in GDP of US$71 billion over the relevant period. Assume an alternative scenario in which policymakers, based on their knowledge of fiscal multipliers, decide to adopt a 'concentrated' approach in which fiscal resources are directed entirely towards supporting capital expenditures. In this case, the value of the multiplier is 1.1 yielding a projected increase in GDP of US$110 billion over the relevant period. The 'concentrated' approach yields a projected increase in GDP that is approximately 1.5 times higher than the 'diversified' approach, although the size of the discretionary fiscal expansion remains constant.

The above example is admittedly contrived and relies on rather simple stimulus arithmetic. The reality is certainly more complex. Fiscal multipliers rely on a range of factors and are shaped by country-specific circumstances. In general, small, open economies have smaller multipliers than economies with large domestic markets. Developing countries have smaller multipliers than developed countries. Furthermore, fiscal multipliers are not immutable values and can readily change with changing economic circumstances. One could argue, for example, that the recession of 2008-2009 has made the debt-constrained private sector (households and firms) rather cautious about the future and preoccupied with meeting their debt obligations. This could cause a decline in their propensity to consume and invest. This implies that tax rebates are likely to be saved by the private sector more than would be the case in normal circumstances. This will thus reduce the potential of tax measures to boost aggregate demand.[40]

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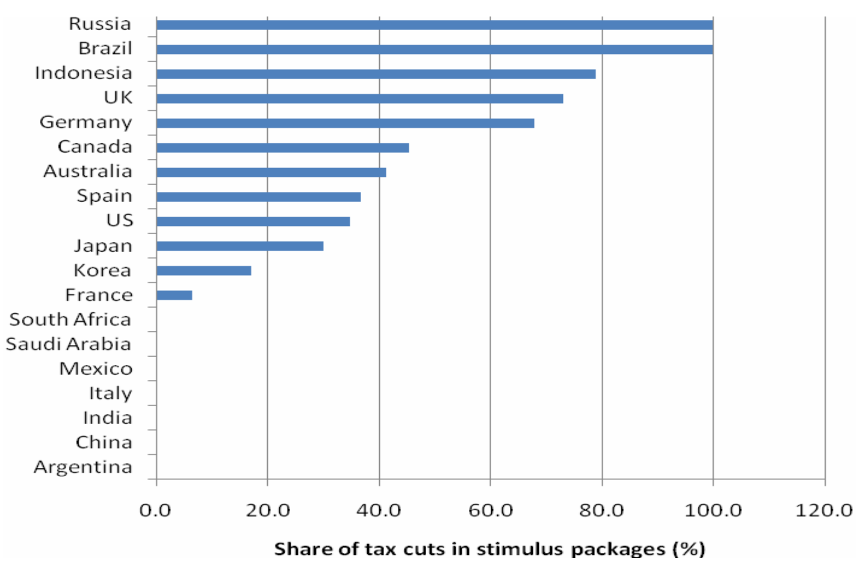
[40] One way in which tax cuts might be made more effective is to target them towards low-income and liquidity-constrained households. One should also acknowledge that the reduced propensity to spend by the private sector during a crisis for precautionary reasons will also lower the value of fiscal multipliers pertaining to government expenditure.

On the other hand, given that the global financial crisis of 2007 was largely unanticipated, it is unlikely that governments across the world would have a large portfolio of 'shovel ready' projects that can be readily activated. Infrastructure programs (building roads and bridges, investing in social housing, refurbishing school buildings, expanding IT infrastructure, etc.) take time to design and deliver. They can also be driven by political imperatives. Ideally, they need to go through a reliable tendering and procurement process and should be subjected to cost-benefit analyses. Given such pragmatic constraints, it might well be the case that some – or even many - governments opt for tax cuts more than spending measures, or at least a 'diversified' approach.

What have governments in the G20 and elsewhere done in terms of the composition of fiscal stimulus packages over 2008-2009? Figure 10 shows the share of tax cuts in the policy packages of G20 countries. The average is 33 per cent, but some countries have a high proportion of tax cuts in their discretionary fiscal policy packages: Indonesia, UK, Germany, Russia and Brazil stand out, with the share of tax cuts ranging from 68 per cent to 100 per cent of their policy packages.

Figure 10: Share of tax cuts in stimulus packages in G20 countries



Source: Derived from Table 3, Jha (2009)

The implications of the above findings for developing nations that fall outside the G20 is that they cannot rely on the 'trickle down' benefits from a globally coordinated fiscal stimulus undertaken by the G20. If the present is any guide, the indirect benefits of collective fiscal action by systemically important nations are unlikely to accrue on a timely and a large enough scale to make a difference to the economic circumstances of the developing world. In any case, many developing countries lack the necessary repertoire of labour market and social protection policies to protect the poor and vulnerable from the deleterious consequences of the global recession.

Table 7: Summary of key findings on fiscal stimulus packages

Agency	**Sample coverage**	**Estimated size of fiscal expansion (as % of GDP)**	**Key findings**
ILO and IILS (2009)/Khatiwada (2009)	G20 + 12 countries	1.7	*Overall size inadequate relative to what is needed *Composition does not maximise employment impact *Model-based simulation suggests that biggest employment impact from labour-intensive public expenditure programs *Model-based simulation suggests that delay in implementation reduces ability to close 'jobs gap'
Brookings	G20	1.4	*Size falls short of benchmark set by IMF *Composition varies significantly and not geared towards maximizing size of fiscal multipliers *Frontloading in many cases, that is, fiscal expansion mostly in 2009
IMF (2009d)	Nine 'largest economies'	3.4	*Although size appears large, impact not significant enough to offset output gap *Diversified approach (mix of tax cuts and spending) *There is a positive relationship between output gap and size of fiscal expansion (higher output gap leading to higher fiscal expansion) *Initial conditions constrain size of fiscal expansion
IMF (2009c)	G20	1.5	*Although sizeable increase in output and employment, overall impact still not significant enough to offset output gap *Diversified approach, but evidence that infrastructure spending has biggest impact on growth *There is a positive relationship between output gap and size of fiscal expansion (higher

			output gap leading to higher fiscal expansion) *Initial conditions constrain size of fiscal expansion
OECD	OECD economies	3.4	*Although size appears large, impact not significant enough to offset output gap *Diversified approach, but evidence is that 'spending multipliers' bigger than 'tax multipliers' * Negative relationship between 'automatic stabilizers' and size of fiscal expansion

Source: ILO/IILS (2009), IMF (2009d, e), Khatiwada (2009), OECD (2009), and Prasad and Sorkin (2009).

4.2 Labour market and social policies as part of the response to the crisis

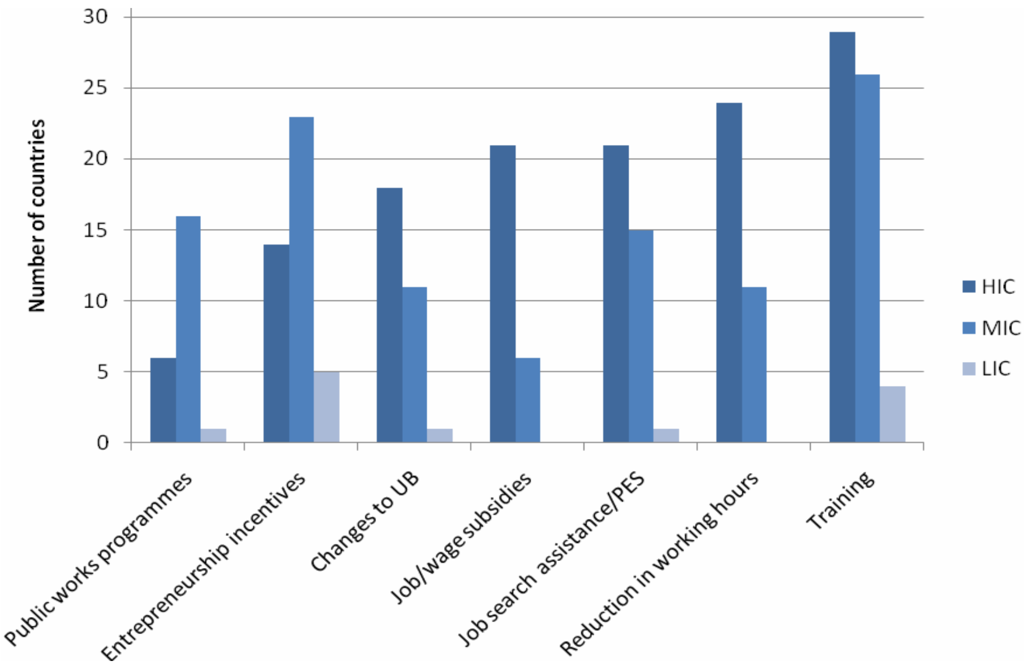
In addition to macroeconomic policy, specific labour market measures also have a role in mitigating the impact of the crisis on workers, helping reduce the lag between economic growth and job creation, as well as preventing the risk of unemployment persistence, long-term unemployment and human capital deterioration. Formulating appropriate policy interventions requires recognizing how the labour market adjusts as a result of the credit squeeze and collapse in aggregate demand, which is discussed further in section 3. In this respect, the degree and form of adjustment will depend on the magnitude of the crisis in their country and region, and the level of labour market flexibility. The latter is influenced by the institutional arrangements in the labour market (such as wage setting institutions, unionization, employment protection legislation, etc.).

In light of the various labour market adjustment mechanisms discussed above (section 3.2), the labour market policy response to the crisis has centred around four main areas: maintaining and increasing labour demand; improving the match between demand and supply; providing income support; and targeting of vulnerable groups. Drawing on the findings of a range of recent surveys on the policy response to the global financial crisis of 2008-2009, a large number of high-income countries have utilized policy measures that address these different goals (Figure 11).[41] The most commonly used intervention in high-income countries is training for both those threatened by layoffs and the unemployed (including work experience and apprenticeship initiatives) (27 countries), followed by work sharing (24 countries), increased resources for public employment services, including job

[41] See Cazes et al. (2009). For similar analysis, see ILO (2009a) and OECD (2009).

search assistance measures (20 countries), and job/wage subsidies (20 countries). The least-implemented intervention in this group of countries is public works programmes (6 countries), which is not very surprising given the limited effectiveness of this intervention in such labour markets.

Figure 11: National labour market policy responses to the global financial crisis of 2008-2009



Source: Cazes et al. (2009).

Notes: HIC = high-income countries; MIC = middle-income countries; LIC = low-income countries, which are grouped according to the World Bank's classification of countries, see http://go.worldbank.org/D7SN0B8YU0. UB = unemployment benefits schemes.

Overall, the use of labour market policies in terms of scope and diversity declines with the income-level of countries, which reflects the financial and technical constraints hindering the response of these governments. Nonetheless, a range of policies have been utilized in low and middle-income countries, in some cases in a similar fashion to more developed nations. As displayed in Figure 11, the most utilized policy response in the middle-income group is training (with 25 countries) followed by job search assistance, entrepreneurship incentives and public works programmes. There are far fewer low-income countries implementing such policies in response to the crisis. In general, low and middle-income countries tend to rely on labour market policy measures that do not require complex institutional structures and social dialogue. Nonetheless, some governments are turning to more innovative policies that have not been widely used before such as providing subsidized training for threatened workers.

The effectiveness of labour market policies during the global financial crisis 2008-2009

In general, evaluation studies conclude that active labour market policies are a potentially important weapon in the fight against unemployment and poverty, but produce mixed results (Auer et al. 2008). Earlier evaluations of active labour market policies in Europe and the United States focused mostly on the short-run employment effects of programmes.[42] Some key messages from this literature are that job-search assistance is relatively effective in the short-run and job subsidies generally increase employment chances but may entail significant direct and indirect (deadweight) costs, and hence should be targeted. More recent studies reveal stronger positive effects of active labour market policies if a longer-run perspective is taken. For example, training measures, which are the most widely-used active labour market policy in the context of the crisis, are beneficial for participants over the longer-term with respect to employment and earnings outcomes (Kluve 2006; Lechner & Wunsch 2009).

In addition to these general findings, it is also possible to gain an insight into the coverage of crisis-related programmes using information provided by governments (particularly the public employment services). As illustrated by the examples in Table 8, this information indicates that in high-income countries, work-sharing schemes have been utilised for a large number of workers as a response to the crisis. For example, over 1.4 million German workers were being subsidized through the *Kurzarbeit* scheme, which helped employers hold on to workers rather than laying them off. Even if it is too early to 'evaluate' these schemes, it is likely that these measures have helped to prevent further increase in unemployment. However, while these measures work over the short-term, they have to be phased out at one point because resources and job reallocation have to take place and because these measures are costly. In some middle-income countries, public works programmes are supporting incomes among a large number of poor households during the downturn.

[42] See Auer et al. (2008), Bechterman et al. (2004), Card et al. (2009), Kluve (2006), Lechner and Wunsch (2009), and Martin (2000) for further discussion on these issues.

Table 8: Effectiveness of labour market policies during the crisis: selected examples

Country	Name of ALMP	No. of beneficiaries
Work-sharing		
France	Activité/Chômage partiel	183,000 workers (June 2009)
Germany	Kurzarbeit	1.42 million workers (June 2009)
Italy	Cassa Integrazione Guadagni (CIG)	716.8 million hours compensated in Jan-Oct 2009
Netherlands	Deeltijd WW	36,000 workers (third quarter 2009)
Japan	Employment Adjustment Subsidy Programme	Over 2.5 million workers (September 2009)
Republic of Korea	Job sharing measure	1,999 enterprises (with more than 100 employees) have utilized this scheme
Wage subsidies		
Argentina	Productive Recovery Program (REPRO)	By September 2009 coverage had extended to 2,317 enterprises and 123,444 workers
Training		
Indonesia	Vocational Training Centres (BLK)	50,000 jobseekers received training
Republic of Korea	Youth internship programme	90,000 interns employed at administrative agencies, public institutions and SMEs
Public works programmes		
India	National Rural Employment Guarantee Scheme	1.77 million person days generated in 2009/10 financial year (five months)
Spain	State Fund for Local Investment	400,000 jobs created
South Africa	Expanded Public Works Programme	568,224 beneficiaries (2008/09)

Source: national sources from various websites; full references are available from the authors.

5 From recession to recovery

5.1 Economic recovery only slowly taking hold

Towards the end of 2009, a variety of indicators showed that the worst of the global financial crisis was over in most countries. Stock markets have recovered from their nadir that was evident in March 2008 and also exhibit far less volatility than at the height of the crisis (World Bank 2010). Third quarter figures for GDP did indicate that most OECD countries technically exited recession (besides Greece, Hungary, Iceland, Spain and the UK).[43] At the same time, one is even witnessing an incipient asset price boom. Later in 2009, trade and industrial production statistics suggested that a recovery is underway. Figures on manufacturing activity in China, Europe, the US, and other badly-hit countries indicate that the global recovery was beginning to strengthen at the start of 2010. Most notably, US industrial activity reached its highest level since August 2004.

However, growth figures for the last quarter of 2009 reveal that this exit from recession is not as robust as first thought. In particular, growth in the European Union has slowed down (from 0.3% in 2009Q3 to 0.1% in 2009Q4). Growth in Czech Republic and Italy fell back into negative territory, while Greece, Hungary, and Spain continued to contract (data for Iceland not available). Expansion in the US and Japan appeared to gather pace, though some of this has been argued to be driven by the 'inventory effect' (i.e. business have run down stocks and have started replenishing their inventory), which will not continue to be an engine of growth over coming quarters.[44]

Looking at the recovery from a more comprehensive perspective reveals that despite the return to positive economic growth late in 2009, most advanced economies are still in a vulnerable situation, particularly when judged from the standpoint of workers' welfare. As reported in Table 9, 20 OECD countries have technically exited recession by the fourth quarter of 2009 (out of 30 countries). The Czech Republic, Germany, Italy and Portugal grew in 2009Q3 before growth stalled in the last quarter of 2009, reflecting the fragile nature of the recovery.

[43] See figures from the IMF's World Economic Outlook Database, October 2009, http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx.
[44] See 'Manufacturing surges back', *Financial Times Europe*, Tuesday, February 2, 2010, and Economist Intelligence Unit (EIU) 'World economy: unsustainable recovery', *ViewsWire*, January 20, 2010.

Table 9: Identifying recovery in OECD countries as of the fourth quarter of 2009

	Component of GDP registered positive growth in 2009Q3/Q4 (compared with previous quarter, seasonally adjusted)					*Unemployment peak reached as of 2009Q3/Q4 (quarterly data, seasonally adjusted)*[b]
Country	***Total GDP***	**Private cons.**	**Gov. exp.**	**GCF**	**Exports**	**Unemployment rate**
Australia	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Austria	**Yes**	**Yes**	**Yes**	No	**Yes**	No
Belgium	**Yes**	**Yes**[a]	**Yes**[a]	No[a]	**Yes**[a]	No
Canada	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No
Czech Republic	No	No[a]	**Yes**[a]	No[a]	**Yes**[a]	No
Denmark	**Yes**	**Yes**	No	No	No	No
Finland	No	**Yes**	**Yes**	**Yes**	**Yes**	No
France	**Yes**	**Yes**	**Yes**	No	**Yes**	No
Germany	No	No	No	No	**Yes**	**Yes**
Greece	No	**Yes**[a]	**Yes**[a]	No[a]	No[a]	No[a]
Hungary	No	No[a]	No[a]	No[a]	**Yes**[a]	No
Iceland	**Yes**	**Yes**	No	**Yes**	**Yes**	No
Ireland	**Yes**[a]	No[a]	No[a]	No[a]	No[a]	No
Italy	No	**Yes**[a]	No[a]	**Yes**[a]	**Yes**[a]	No
Japan	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**
Korea	**Yes**	No	No	**Yes**	No	**Yes**
Luxembourg	**Yes**[a]	**Yes**[a]	**Yes**[a]	No[a]	**Yes**[a]	No
Mexico	**Yes**	**Yes**[a]	**Yes**[a]	**Yes**[a]	**Yes**[a]	**Yes**
Netherlands	**Yes**	No	**Yes**	No	**Yes**	No
New Zealand	**Yes**[a]	**Yes**[a]	**Yes**[a]	No[a]	No[a]	No
Norway	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No[a]
Poland	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**
Portugal	No	**Yes**[a]	**Yes**[a]	**Yes**[a]	**Yes**[a]	No
Slovak Republic	**Yes**	**Yes**	**Yes**	No	**Yes**	No
Spain	No	**Yes**	No	No	**Yes**	No
Sweden	No	**Yes**	**Yes**	No	No	No
Switzerland	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No
Turkey	**Yes**[a]	No[a]	**Yes**[a]	**Yes**[a]	**Yes**[a]	No[a]
United Kingdom	**Yes**	**Yes**	**Yes**	No	**Yes**	No[a]
United States	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	No

Source: OECD.Stat Extacts, http://stats.oecd.org/Index.aspx; author's calculations.
Notes: GDP = C + G + GCF + X - M (+change in inventories and residual); GDP = gross domestic product; C = private consumption; GCF = gross capital formation; X = exports; M = imports.
[a] – Figures are for 2009Q3
[b] – **'**Yes**'** = The unemployment rate has fallen by more than 2% from the previous quarter.

Of the countries that emerged from recession at the end of 2009, gross capital formation has only expanded in Australia[45], Canada, Iceland, Korea, Mexico, Norway, Switzerland, Turkey and the US, which does not bode well for the longer term growth prospects in other countries. Moreover, output growth in a majority of economies (80%) has been supported by an expansion in exports, which emphasizes the important (but potentially fragile) contribution of the rebound in global trade to the recovery.

5.2 Labour market remains in crisis

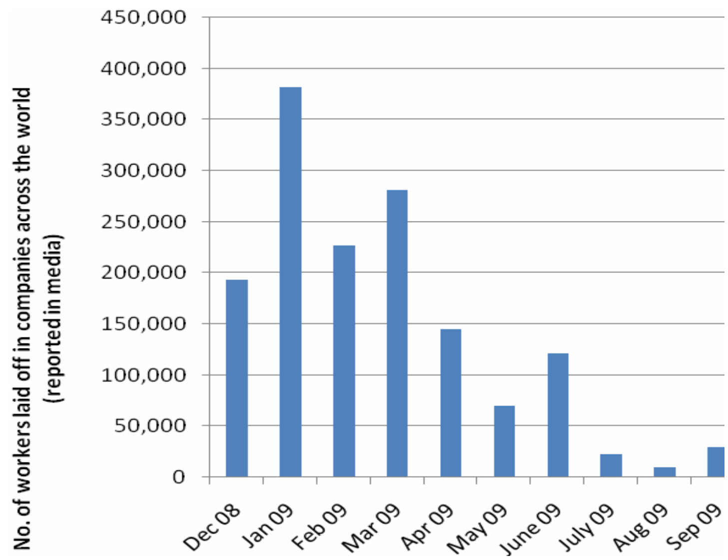
The real test of the recovery is not whether the economy in aggregate is back on track but whether there are signs of improvement in the labour market. In this respect, unemployment continues to rise in the vast majority of OECD countries, having peaked only in Australia, Japan, Korea, Mexico and Poland (out of the 20 countries that have emerged from recession), and even in these countries, it is still too early to proclaim that the crisis in the labour market is over.

Rather focusing just on the levels of employment/unemployment, a fuller insight into the state of the labour market can be gained by looking at flow data. In this respect, layoffs peaked early in 2009 before returning to pre-crisis levels. This trend is evident in both the data on monthly lay-offs at the company-level across the world in different sectors as reported by the media between December, 2008 and September, 2009 (Figure 12), and figures on flows in the US labour market (Figure 13).[46] In the case of media-announced lay-offs (which tended to be large companies), the peak occurred in January 2009 when almost 382,000 pending dismissals were announced globally. In the US, monthly layoffs reached a maximum of 2.5 million in the same month.

[45] Australia did not technically enter a recession.

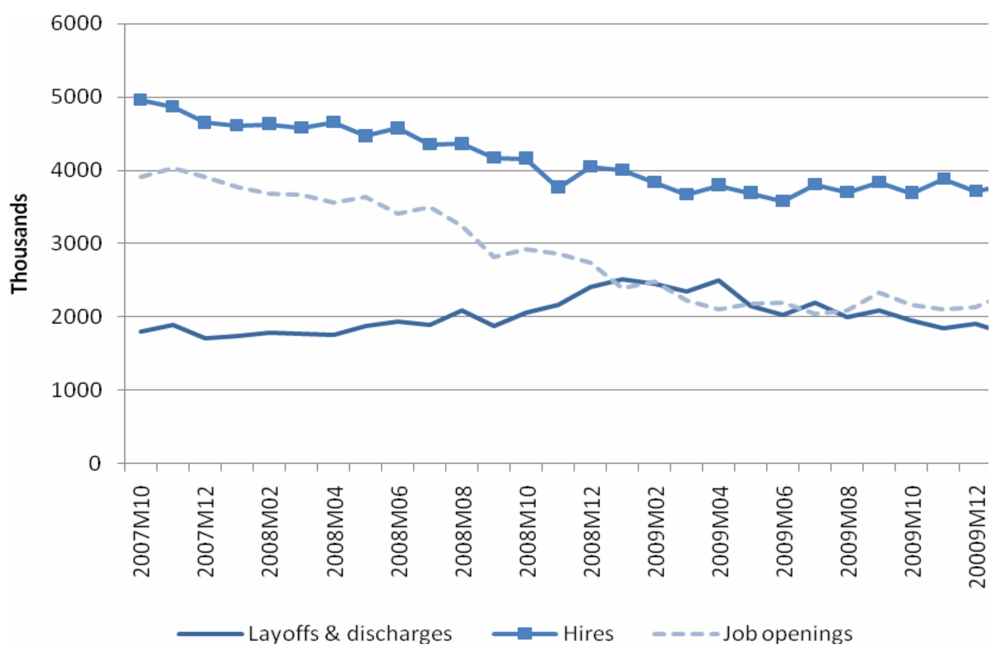
[46] The firm-level figures were estimated from data reported on a bi-weekly basis in the Financial Crisis Alert Series (FCNA) compiled by the International Labour Office since mid-December 2008. In all, information was available on 417 companies across the world.

Figure 12: Announced layoffs peaked early in 2009, monthly data (December 2008 to September 2009)



Source: compiled from various ILO's 'Financial Crisis News Alerts', December 2008 to September 2009 (media-announced layoffs), http://www.ilo.org/intranet/english/support/lib/about/financialcrisis.htm.

Figure 13: Layoffs and hires in the US during the crisis, monthly data (December 2007 to January 2010)



Source: Bureau of Labor Studies Job Openings and Labor Turnover Survey (JOLTS), http://data.bls.gov:8080/PDQ/outside.jsp?survey=jt.

Notes: Figures are for the US private sector; data accessed 22 March, 2010; data is seasonally-adjusted. Figures for January 2010 are provisional.

However, while layoffs are an important indicator of labour market distress, they only reveal part of the story. More specifically, though layoffs add to the pool of unemployed, it is the reduced job openings and the subsequent collapse in hiring that drives the unemployment rate once the economy has bottomed out. This is clearly evident in the US as graphed in Figure 13: monthly hires fell from 5.035 million in December 2006 to 3.715 million in December 2009, which is a far greater margin than the rise in layoffs over the crisis period. Moreover, there is no evidence that either job openings or hires in the US have started to improve, which would be much stronger evidence of a jobs recovery in the world's largest economy.

In addition to the short-term labour market dynamics, rising long-term unemployment is a real concern for many crisis-affected countries. For instance, in the United States, a country used to shorter unemployment spells, 41.2 per cent of the unemployed have been out of a job for more than 6 months (January 2010), up from only 22.4 per cent in January 2009.[47] Though in general there is no clear post-crisis trend in the European Union, a number of member States are already experiencing rising long-term unemployment rates. For example, in Spain, the share of the long-term unemployed (unemployed for 12 months or more) has surged from 19.4 per cent in the last quarter of 2007 to 29.3 per cent in the same quarter of 2009.[48]

These labour market realities confirm the view that as of the beginning of 2010, the recovery is still in its infancy and there is a long way to go before the situation improves for not just Wall Street but also 'Main Street' in terms of sustained job creation. For this reason, labour market policies should continue to play a complementary role in responding to the crisis, so concerted efforts are required to prevent long-term unemployment and to help individuals remain attached to the labour force and find a job. More specifically, governments should consider the following key priorities during the recovery phase:

- Continue to keep workers in jobs through such labour market policies as work-sharing schemes (depending on the pace of economic recovery);
- Utilize job/wage subsidies along with tax credits to encourage employers to start taking on new staff. To minimize deadweight costs, these measures should target

[47] See http://www.bls.gov/news.release/empsit.t12.htm
[48] See EUROSTAT's database, http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/data/database.

individuals who are vulnerable of becoming long-term unemployed or losing attachment to the labour force, such as youth and the low-skilled; and

- Strengthen re-employment policy, i.e. job search assistance, training and related measures, that improve the employability of the unemployed, which will reduce the risk of long-term unemployment and discouragement, avoid that skills of workers become obsolete, and facilitate any structural changes in the labour market.

5.3 Risks to recovery

Stimulus withdrawal versus debt consolidation

Though there has been some discussion about the risk of a **'**double-dip**'** recession in light of the role the stimulus packages have had in generating economic growth, most forecasters, including the IMF and World Bank are not predicting a return to a negative global figure.[49] Nonetheless, the risk of a further deterioration remains and growth is not likely to continue as strongly in 2010 as witnessed in the latter half of 2009. Europe appears to be of greater risk of a 'double-dip' than the US. Therefore, a premature withdrawal of the stimulus would jeopardize the nascent recovery and could push economies back into recession, further prolonging the impact of the crisis for a number of years to come, particularly on labour market and social outcomes.

At the same time, fiscal deficits and debts have serious long-term implications for economic growth and government spending on such areas as pensions and social services, which was being challenge anyway by an aging population. As reported by Reinhart and Rogoff (2009), real government debt increases for three years following a banking crisis with an average debt increase of more than 86 per cent. According to IMF estimates, the budget deficit reached 12.5 per cent of GDP in the United States and 11.6 per cent in the UK in 2009. In the case of the UK, the deficit is expected to peak at 13.2 per cent in 2010. As a consequence, total net government debt in both these countries is projected to increase over the next five years reaching 84.9 per cent (US) and 91.8 per cent of GDP (UK) by 2014. Other countries facing mounting problems with public debt include Greece, Ireland, Italy, Japan, Portugal and

[49] See IMF Survey Magazine, January 18, 2010, athttp://www.imf.org/external/pubs/ft/survey/so/2010/NEW011810A.htm, and World Bank (2010)

Spain, though in some cases, high levels of debt pre-dated the crisis (Greece, Italy and Japan). Overall, countries that had the biggest credit booms and asset bubbles have had to increase public spending the most (Cecchetti et al. 2010).

Against this backdrop, there is still considerable uncertainty about how governments will be able to tackle debt levels, partly because growth is not going to return quickly to pre-crisis levels, and partly because the impact of a rapidly aging population will increasingly put a strain on the fiscal purse. Therefore, given that many countries are in **'**uncharted territory**'** (at least in terms of living memory), a lively debate on fiscal consolidation has unsurprisingly taken hold. In the UK, for example, it has resulted in a very public exchange between academics on the timing of debt reduction.[50] This debate in the UK is a specific manifestation of the global debate between those who are seeking the need to engage in fiscal consolidation immediately and those who argue that a 'big bang' approach to fiscal consolidation will prolong and even worsen the anaemic recovery that currently seems to be underway.[51]

At the same time, developing countries face an uncertain future. As predicted by the World Bank in the *Global Economic Prospects 2010*, the crisis is likely to result in higher borrowing costs and lower levels of credit and capital flows to developing countries, which will, in turn, hamper efforts to bring growth levels back up to pre-crisis levels (World Bank 2010). This study estimates that trend growth in developing countries will be reduced by between 0.2 and 0.7 percentage points over the next five to seven years. This prediction suggests that many of the world's poorer countries are facing the prospects of another 'Lost Decade'. This pessimistic view hinges very much on the role of China and, to a lesser extent India, in the post-crisis global economy.

Correcting global imbalances

In addition to these country-level issues of labour market recovery, stimulus withdrawal, and debt levels, the much discussed global imbalances remain a concern. While savings rates

[50] On February 14, 2010, Professor Tim Besley and 19 co-signatories called for an acceleration of fiscal consolidation in a letter to the Sunday Times, see http://www.timesonline.co.uk/tol/comment/letters/article7026234.ece. In response, Lord Skidelsky and 67 other economists responded in a letter to the Financial Times on February 18 calling for a focus on increasing economic growth rather than a premature reduction in the deficit and level of public debt, see http://www.ft.com/cms/s/0/84b12d80-1cdd-11df-8d8e-00144feab49a.html.

[51] See Corden (2009) for a lucid overview of this global debate.

have indeed risen in crisis-affected countries, it is not clear how these economies will develop into ones that are less-consumption driven. A long-term reduction in consumption that is not offset by an increase in other sources of growth (exports, investment) will only put the country on lower growth path, i.e. permanently lower level of economic output. Consumption in these countries has already been battered by the recession and losses in household wealth. This argument also applies to economies that contributed to the global liquidity boom prior to the crisis, namely the export-led economies of China, Germany, the Middle East and other emerging countries. For these countries to undergo a transformation to an economy driven by domestic consumption is also far from straightforward and will be a delicate task that requires global coordination.

While the massive stimulus provided by low interest rates, injection of funds into the financial system and the fiscal spending was crucial in preventing a more calamitous downturn, some commentators argue that there are signs that these measures are contributing to new bubbles. Sachs (2009), for example, claims that the measures taken by Obama's administration, Congress and the Federal Reserve have sought to 're-create' a consumption-driven bubble, rather than coming up with a new strategy of economic governance and macroeconomic policy.[52] In addition to this view, the housing bubble in China, which was partly driven by stimulus measures to increase credit, is a major worry for the stability of the weak global economy, which is more than ever dependent on China. In addition, Rodrik (2009) makes the point that the Chinese currency is currently undervalued by 25 per cent. If, in seeking to a make a contribution to the rectification of global imbalances, the Chinese authorities allow the currency to appreciate rapidly, GDP growth will decline by an estimated 2.2 percentage points per annum. This could well threaten political and social stability in China whose authoritarian political regime relies heavily on rapid growth to sustain its legitimacy. For these reasons, the potential for further uncertainty and downside risks is very much dependent on what happens in the Chinese economy over the coming years.

[52] Of course the counter argument is that it will take time for households to repair their balance sheet and, therefore, consumption is likely to be subdued for some time.

Fragile financial system

Solving the regulatory failures in the financial system is complex as it involves both correcting the use of leverage to invest in risky assets (where a lot of the risk was concealed) and reducing the incentives provided by bonuses for short-term profit over long-term sustainability. The banks that survived the crisis have turned in record profits in 2009, having benefited from government bailouts (direct and indirect) and the massive injections of liquidity into the financial system, along with the decrease in competition (a market without the likes of Bear Stearns, Lehman Brothers, and Merrill Lynch). A number of investment banks have generated large increases in income. The most profitable, Goldman Sachs, reported a record net profit of US$13.4 billion in 2009.[53] Against this back drop, as Sachs (2009) argues, the incentive structure has not radically changed. Therefore, the challenge is to develop a regulatory system that will prevent the similar risk-taking behaviour witnessed in the lead up to the sub-prime crisis.

6 Concluding remarks

The paper has navigated a wide and diverse terrain. It would be useful at this juncture to weave together the different strands in the discussion, highlight the key findings and the implications that follow from them.

Firstly, the historical perspective outlined in this paper on the decades leading up to the global financial crisis provides an insight into different interpretations of recent economic trends. Over the years leading up to the global financial crisis of 2007 and the ensuing recession, commentators, including leading academics, postulated that the economy had entered a new era of low volatility (known as the 'Great Moderation'). Apart from this OECD-centric view, there are other interpretations of the economic trends of the last few decades, namely the insufficient rates of growth in developing countries in the 1980s and 1990s (the 'Lost Decades') to tackle poverty, and then more recently, the devastating impact of the surge in oil and food prices on the poor (the 'crisis-before-the-crisis'). In addition, there had been little improvement in employment outcomes in many countries, despite the

[53] See http://www.ft.com/cms/s/0/2e3f4f46-e316-11de-b965-00144feab49a.html?nclick_check=1

surge in economic growth from 2002. Moreover, the financial crisis that hit the global economy in 2007 and 2008 was by no means the first. A review of previous crises reveals that these episodes have occurred frequently, a fact that was so easily forgotten during the boom years of the 2000s. Overall, this review shows that the global economy was by no means as stable as suggested by many observers, and thus given the warning signs, the crisis shouldn't have come as a surprise.

Secondly, the paper stresses that there are a range of complex and interlinked factors behind the emergence of the global financial crisis in 2007, namely loose monetary policy, global imbalances, misperceptions of risk and lax financial regulation. The paper also summarizes how economies around the world have been affected, resulting in millions of job losses. Beyond this aggregate picture, the impact of the crisis is rather diverse, reflecting differences in initial conditions, transmission channels and vulnerabilities of economies, along with the role of government policy in mitigating the downturn. In terms of the policy response, this paper stresses that macroeconomic stimulus measures and labour market policies have been utilized in both advanced and developing economies. Nonetheless, these policies have only partially offset the crisis; in some cases they have been more successful in helping governments avoid either a severe economic contraction or at least a rapid deterioration in the labour market.

Finally, this paper underscores that while the recovery phase has commenced, a number of risks remain that could derail improvements in economies and hinder efforts to ensure that the recovery is accompanied by job creation. The main risks to the recovery relate to the premature withdrawal of the stimulus packages, the continuing and emerging imbalances (both globally and domestically) and the challenge of setting an appropriate level of regulation for the financial sector to avoid some of the mistakes that were made leading up to the start of the crisis in 2007. The path to recovery will be protracted and uncertain, and ultimately, will hinge on whether China (and to some extent, India) can continue to drive global growth.

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