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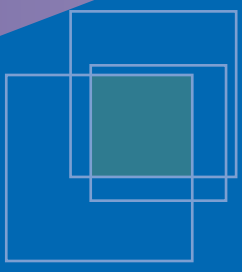

BUILDING A SUSTAINABLE JOB-RICH RECOVERY

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INTERNATIONAL LABOUR ORGANIZATION
INTERNATIONAL INSTITUTE FOR LABOUR STUDIES

The International Institute for Labour Studies (IILS) was established in 1960 as an autonomous facility of the International Labour Organization (ILO) to further policy research, public debate and the sharing of knowledge on emerging labour and social issues of concern to the ILO and its constituents — labour, business and government.

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FOREWORD

The financial and economic crisis of 2008 continues to disrupt global markets. And while global growth in 2009 returned to positive territory the pace of recovery has slowed and a number of acute labour market and social challenges persist.

The European Union is confronted with the multi-faceted task of responding to these immediate pressures while at the same time addressing the labour market and social challenges of the twenty-first century. In this respect it will be critical to ensure that policies evolve accordingly and effectively harness the opportunities presented by a more integrated world economy.

This report is the result of a cooperation project between the Directorate-General for Employment, Social Affairs, and Inclusion of the European Commission and the International Institute for Labour Studies of the ILO. Its purpose is to develop policies that will lead not only to a quicker recovery but also to a more sustainable and equitable global economy. This is particularly relevant given the uneven recovery process across and within countries. The results presented in this Synthesis Report are based on the findings of a special series of research papers produced for the purposes of this project.

The report has been prepared by Matthieu Charpe, Ekkehard Ernst, Verónica Escudero, Byung-jin Ha, Sameer Khatiwada and Steven Tobin (International Institute for Labour Studies) with contributions from Slim Bridji, Susanne Quadros and Felipe Swartzman (external collaborators). The formatting and

layout of the publication has been prepared by Thuy Nguyen Couture (International Institute for Labour Studies). It has been prepared under the supervision of the Director of the Institute, Raymond Torres. A preliminary draft of the findings was presented at a seminar organized in cooperation with the European Commission on 31 March 2011 in Brussels. The final report takes into consideration many of the comments received from experts, the social partners and other stakeholders during and following the seminar.

The project benefited from the support of Rudi Delarue and Audrey Le Guével (ILO Office for the European Union and the Benelux countries) and Anne-Laure Henry-Gréard (Partnerships and Development Cooperation Department at the ILO). The authors would like to thank in particular, Michael Morass and Agata Woźniak of the Directorate-General for Employment, Social Affairs, and Inclusion of the European Commission for their comments, guidance and support during the joint cooperation project.

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ADB	Asian Development Bank
ALMP(s)	Active labour market programmes
ARRA	American Recovery and Reinvestment Act
BBC	British Broadcasting Corporation
CAB	Cyclically adjusted balances
EEAG	European Economic Advisory Group
ERM	Exchange Rate Mechanism
EU	European Union
FAC	Federal Additional Compensation (programme)
G20	Group of 20 major economies
GDP	Gross domestic product
GEL	Global Economic Linkages (model)
GHH	Greenwood, Hercowitz and Huffman (preferences)
GNS	Gross national savings
IILS	International Institute for Labour Studies
ILO	International Labour Organization
IMF	International Monetary Fund
IPEA	Instituto de Pesquisa Economica Aplicada
IPI	Industrial production tax
LAC	Latin America and Caribbean
LDCs	Less developed countries
LTCM	Long-term capital management

MBS	Mortgage-backed securities
MENA	Middle East and North Africa
MSME(s)	Micro-, small and medium-sized enterprises
OECD	Organisation for Economic Co-operation and Development
P/E	Price to earnings ratio
RBC	Real Business Cycle (model)
SME	Small and medium-sized enterprises
SMVM	Salario mínimo, vital y móvil (minimum living and adjustable wage)
SNAP	Supplemental Nutrition Assistance Programme
SSA	Sub-Saharan Africa
TFP	Total factor productivity
ULC	Unit labour costs
UNCTAD	United Nations Conference on Trade and Development
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
VAT	Value-added tax
WEPP	Wage Earner Protection Programme

EXECUTIVE SUMMARY AND POLICY RECOMMENDATIONS

The global financial crisis has hit European labour markets hard...

The worst global crisis in the past 80 years has made a deep impact on European labour markets. In some countries, unemployment rates have increased two-fold, erasing most of the employment gains of the past two decades. In others, part-time work and short working hours have become widespread; while these factors have helped to mitigate the initial impact of the crisis, they may also have lasting consequences for the labour market, affecting in particular younger people and those with temporary contracts. Moreover, global growth has begun to slow considerably and European financial instability is disrupting markets worldwide. Importantly, employment creation overall is still weak and in some EU countries continues to fall, raising the spectre of prolonged unemployment and permanently raised inactivity rates. It is against this backdrop that the present report attempts to bring together current thinking on the real-economy factors driving this and previous crises, while drawing on experiences from around the world and underlining the key lessons learned with a view to developing long-term strategies for a sustainable recovery.

...and past experiences suggest the consequences are likely to be long-lasting.

The crisis may have been a rare event for Europeans but financial crises have been affecting economies around the globe for decades. Understanding the

nature of such crises can provide a number of useful lessons, starting with the realization that financial crises are typically much more severe than normal cyclical corrections and hit labour markets particularly hard. There a number of reasons for this. First, asset price bubbles generated in the run-up to a financial crisis lead to overinvestment and the misallocation of capital. Second, when the available liquidity is no longer sufficient to sustain the bubble, investors quickly withdraw, causing a sudden drop in asset prices; financial markets become dysfunctional as the faltering confidence of market participants dries up liquidity and shuts down business; "contagion" ensues and is transmitted throughout the economic system. Also, overinvestment often happens only in certain sectors of the economy, so with the onset of the crisis, a profound restructuring of the labour market begins, forcing workers to change jobs, firms and often even careers. This triggers rapidly rising long-term unemployment and contributes to permanently reduced wages. Skill erosion, labour market detachment and geographical mismatch make it difficult to reintegrate the long-term unemployed. As a consequence, large-scale cyclical unemployment runs the risk of hardening into a permanent increase in the natural rate of unemployment. To what extent and for how long a financial crisis leaves its imprint on the economy depends on the particular circumstances that have led to the crisis and the degree to which earlier imbalances have been remedied by the crisis conditions. Understanding the cause and dynamics of the current financial crisis is therefore an important step forward in addressing European labour market and social challenges for sustainable globalization.

The financial crisis was a reaction to earlier imbalances, partly driven by income inequalities.

The crisis hit European economies in three ways: the banking sector suffered heavy losses due to exposure to the international security markets and a resulting generalized loss of confidence in the viability of individual banks; the faltering of global trade and the increase in precautionary savings led to a dramatic shrinking of aggregate demand; and, finally, a number of European countries experienced asset price boom–bust cycles. All three problems can be traced back to rapid changes in the availability of global funds.

Swings in international capital flows have been one of the main drivers of the global imbalances that lie at the heart of the crisis. Large and permanent trade surpluses in a few countries have coincided with equally large and persistent deficits in others. In particular, the export boom in South and South-East Asia has had a sustained deflationary impact on the global economy, underpinning a long-lasting global boom with stable prices. As a consequence, policy-makers in advanced economies have seen little reason to tighten monetary or fiscal policies to prevent their economies overheating, thus prolonging a period of cheap money.

Meanwhile, excess savings accumulated in some parts of the world have been absorbed by those countries that have experienced a secular decline in savings rates and continuously rising indebtedness. In fact, in a number of advanced economies, the leverage ratio – i.e. the rate of private credit to GDP – grew without interruption from the early 1990s onwards. In addition, the highly institutionalized nature of the international financial system through which parts of these funds were channelled did not allow proper appreciation of risk and led to a permanently depressed risk premium – a classic recipe for an investment and asset price boom.

But the existence of these large imbalances in savings and investment requires an explanation: as this report demonstrates, a key element in understanding the size and persistence of these imbalances resides in social imbalances resulting from weak wage growth, especially as experienced by lower income households. In certain countries, policy-makers were active in limiting the adverse consequences of these social developments, but mainly by facilitating access to unsustainably high levels of debt for low-income households instead of supporting income levels through changes in the tax-benefit system. As a result, countries with underdeveloped domestic financial markets experienced an export boom thanks to declining unit labour costs as well as a rise in domestic savings. In countries with more developed financial markets – most notably the United States – credit policy was used as a short-term palliative measure to mitigate the worst effects of low growth of disposable income, at the cost of household debt reaching unsustainable levels.

Countries have put in place substantial spending programmes...

At the onset of the crisis, policy-makers acted swiftly and decidedly. To prevent a complete breakdown of the financial system, massive support has been provided to secure the most vulnerable banks. In addition, aggregate demand has been propped up by tax cuts and targeted government spending measures, even in countries that had remained unaffected by financial sector troubles. This rapid shift in stance on macroeconomic policies has helped to limit the downfall and shorten the period before recovery set in.

Nevertheless, even though high-income countries announced policy measures earlier than middle- and low-income countries, their labour markets continue to suffer substantially. Unemployment rates remain stubbornly high, inactivity is on the rise as jobseekers become discouraged or run out of benefits. For example, in the EU-27, unemployment rates continue to hover around 10 per cent in 2011 and long-term unemployment is above 40 per cent.

...but will need to target efforts at promoting quality job growth...

Against the backdrop of a partial recovery, public finances deteriorated rapidly and sovereign debt problems started to emerge. Most EU countries are now facing fiscal constraints and have started to cut spending on measures, notably in the area of labour market and social policies. However, cutting back on stimulus programmes too soon risks undermining the fragile recovery which is under way.

Most debates in this area, however, have so far only looked – wrongly – into the effectiveness of government spending on job creation at the aggregate level. It is therefore increasingly imperative to better understand the effectiveness of specific policies and the potential trade-offs involved, both immediate and longer term. Evidence presented in this report – based on the Global Economic Linkages (GEL) model developed at the International Institute for Labour Studies (IILS) – shows that spending on labour market programmes can help jobseekers to find new employment opportunities more rapidly, while

at the same time sustaining disposable income and demand and providing the basis for sustainable and more stable economic growth. The report argues for increased recourse to active labour market programmes (ALMP) to improve labour market intermediation and avoid a further deterioration in skills erosion and labour market detachment. Importantly, investments in ALMPs: (i) need not be costly to be effective; and (ii) have a positive fiscal multiplier effect on output as a result of higher wages and employment.

As policy-makers struggle to keep expenditures under control, it is important to bear in mind these findings and the fact that efforts to promote job creation through poorly designed labour (de)regulation – although inexpensive to implement – will be counterproductive in the medium term. In the first instance, as evidenced by the case of the Republic of Korea after 1997, it will exacerbate the current job quality gap, leaving many workers vulnerable to lay-offs and without adequate social protection. Second, labour market dualities reduce competitiveness and future resilience to economic shocks. In particular, the existence of a dual labour market structure – with one segment particularly flexible and another one highly protected – makes these economies particularly volatile and less receptive to stimulus measures, as currently confirmed by the Spanish labour market situation.

...that are implemented in parallel with macroeconomic measures.

Recognizing the interplay between employment and social policies on the one hand and macroeconomic policies and economic growth on the other will be one of the keys to an inclusive recovery. Indeed, well-designed policies can have important mutually reinforcing effects. Policy planks in isolation are insufficient to address the challenges at hand. On the contrary, economic, employment and social policies must work together. For example, efforts to enable firms to take advantage of new opportunities and create jobs will be complemented by social protection measures which stimulate income growth and domestic demand. Similarly, employment-centred initiatives can bolster job growth while improving long-term productivity gains. Such an approach was particularly evident in Argentina during the currency crisis of 2001–02;

the Government switched from a pro-cyclical macroeconomic approach to an integrated strategy combining different elements targeting specific areas, including ALMP measures. Moving forward, the challenge will be establishing how to adjust the existing policy framework to reflect this new reality. Equally enduring and perhaps more intractable is the question of how to finance such measures in light of fiscal constraints.

Sustained progress depends on effectively addressing the origins of the crisis...

Countries need to rebalance the structure of global demand in order to achieve sustained growth. In deficit-oriented countries, income-generating measures need to drive growth rather than debt. In surplus countries, efforts are needed to reduce the export-oriented growth path by spurring domestic demand. In both cases, a reduction in income inequality through income-generating policies is critical to ensuring success. In deficit countries, improving social policies, increasing minimum wages, implementing income-support social schemes and providing adequate unemployment benefits can help to boost income and facilitate a reduction in private debt. In surplus countries, extending social protection systems could be one way of helping to reduce the current high level of precautionary savings. Policy tools also need to be tailored to help strengthen wage growth. More specifically, investments in training and skills to support human capacity building as well as productive capital are needed to mitigate the decrease in labour productivity being experienced in many developing and emerging economies due to the crisis.

In addition, a sustainable recovery will be difficult to achieve unless the deficiencies in the financial market are addressed. Good practices during the crisis have inspired certain reform proposals, such as "speed limits" for credit expansion in certain countries and pro-cyclical bank reserve requirements in others. The United States and European Union are also moving towards making substantial reforms. And, at the international level, the multilateral framework has been strengthened to safeguard the international payment system. Yet, despite

these encouraging first steps, several problems persist and hamper a more encompassing shift in financial regulation. First, the unprecedented support to the financial sector during the 2008 crisis has undermined the state's capacity to support the real economy. The ensuing sovereign debt crisis observed in many European countries not only forced policy-makers into premature consolidation efforts but has also weakened their ability vis-à-vis international financial investors to push for more ambitious financial sector reforms. Second, better regulation of international capital flows is needed to avoid excessive credit growth, which has a destabilizing effect on the real economy and labour markets of these countries. Finally, most reform proposals remain confined to the banking sector. However, as long as non-deposit-taking financial institutions, such as hedge funds or investment banks, are not subject to more stringent regulation of their activities, new risks may quickly emerge, as earlier examples of large, underwater funds during the 1990s have demonstrated.

...and resurrecting the strong sense of coordination that was present at the onset of the crisis.

Preliminary evidence suggests that the internationally coordinated response to the financial and economic crisis was important in limiting the damage in terms of loss in output and employment. However, rising debt concerns in some economies, coupled with persistently high unemployment rates in others, have led to an equally disharmonized round of measures; for example, wage and currency devaluations which could undermine the recovery, with a race to the bottom ensuing. Thus, in order to avoid a return to a business-as-usual approach, a renewed spirit of international solidarity is needed to coordinate policy efforts and ensure that the recovery is job-rich, inclusive and fair.

FINANCIAL CRISES – KEY LESSONS LEARNED

1

Key findings

- Available empirical evidence suggests that labour market outcomes during financial crises tend to be more severe than during regular downturns, even after controlling for the size of the recession.

  - The impact of financial crises on the labour market can generate structural adjustments, such as an increase in long-term unemployment. Since it is difficult to reintegrate these workers into the labour force (due to skills erosion, labour market detachment, etc.), such an increase could lead to "hysteresis", that is, the tendency of large cyclical unemployment outcomes to translate into a permanent increase in the natural rate of unemployment.

- In light of the recent crisis, studies suggest that financial regulation should become "macro-prudential", that is, capital adequacy ratios should respond not only to the individual risk of securities held by banks, but should also be responsive to the way in which they correlate with macroeconomic variables and, in particular, how they behave during financial crises. Macro-prudential regulation should also be cyclical, i.e. tighter in the boom and weaker in the downturn.

- Even well-designed financial regulations are constrained, so that any financial regulation has to specify which assets and institutions fall within its

rules and which do not. This creates an incentive for funds to flow towards unregulated institutions in the boom periods and back to the regulated ones in the crisis, potentially amplifying the cycle. Finding the balance in terms of excessive or inadequate financial regulation is therefore a challenge for policy-makers, especially against the backdrop of significant labour market and social challenges stemming from the crisis.

Introduction

While financial crises may be a novelty for policy-makers in the United States and major European countries, in other parts of the world they are a relatively frequent occurrence. As a consequence, an extensive literature is available to policy-makers looking for insights into what drives financial crises and how best to formulate an effective response. This chapter seeks to isolate some of the key lessons learned, focusing in particular on macroeconomic issues.

A. Defining financial crises

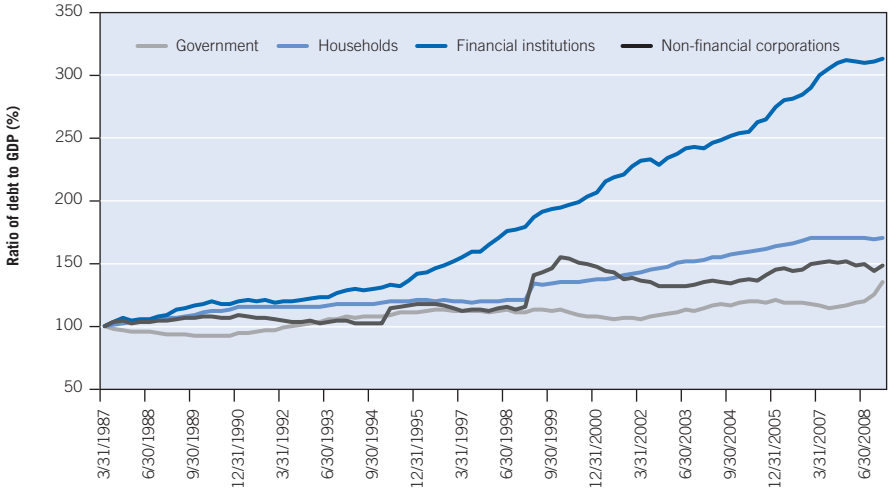
1. Boom–bust cycles

Bubbles are hard to identify empirically and the literature tends to focus on obvious signs of disruption in the financial system, such as widespread bank runs and bank failures or financial flows and stock market movements (Gurkaynak, 2008). An important example of this approach is developed by Calvo (1998), who looks at the abrupt cessation of foreign capital inflows. Mendoza and Terrones (2008) focus instead on credit booms, noting that the peak of these booms often directly precedes financial crises, especially when they occur in less developed countries (LDCs). A third approach is to look for deep discounting of important asset classes, such as stocks and housing (Bordo and Jeanne, 2002). Such assets represent an important part of household and

corporate balance sheets and a drop in their value can lead to an interruption in the flow of finance as lenders reassess their value as collateral.

Exchange rate crises have also been shown to be significant triggers or amplifiers of financial crises where financial institutions hold significant foreign currency positions (Diaz-Alejandro, 1985; Calvo and Talvi, 2008). However, not all exchange rate crises turn into financial crises, as was shown by the collapse of the European Exchange Rate Mechanism (ERM) in the early 1990s. In this respect, Kaminsky and Reinhart (1999) suggest focusing on episodes in which an exchange rate crisis and a banking crisis take place simultaneously. Finally, Kehoe and Prescott (2007) define what they call "great depressions of the twentieth century" as episodes in which a country suffers a precipitous and persistent output drop. Their definition makes no reference to disruptions in the financial sector but there is a substantial degree of overlap between the cases they study and the financial crises identified in other studies.

Figure 1.1 **Ratio of debt to GDP by institution (March 1987 = 100)**



Note: In percentages, GDP-weighted, 1987 = 100.

Source: IMF.

Despite the different approaches taken and definitions used, financial crises represent a reasonably well-defined economic problem which is amenable to data collection and systematic research. In all cases a broad boom–bust narrative emerges, starting with an easing of bank lending rules (Kaminsky and Reinhart, 1999; Tornell and Westermann, 2005), which results in an increase in the supply of credit (Mendoza and Terrones, 2008) (see figure 1.1 for the rapid expansion of leverage in the financial sector leading up to the 2007–09 crisis). Easier credit stimulates demand and consumers, corporations and governments gear up, while capital flows among countries intensify (Reinhart and Rogoff, 2010). Prices of key assets, such as housing and equity, balloon (Bordo and Jeanne, 2002; Reinhart and Rogoff, 2010) and are paralleled by a boom in economic activity. As banks, corporations and consumers hit their gearing limits, the bubble starts to deflate, trends revert abruptly and the boom turns into a crisis (Kaminsky and Reinhart, 1999; Mendoza and Terrones, 2008). Figure 1.2, which outlines the financial and economic crisis of 2007–09, serves as an example of the typical boom–bust cycle.

Figure 1.2 Origins of the financial and economic crisis (2007 – 09)

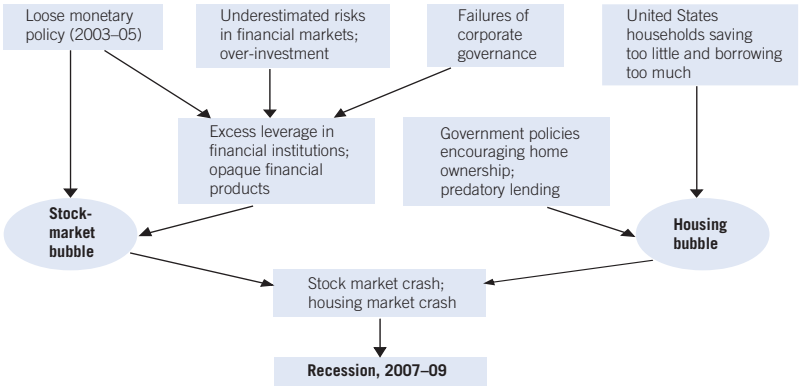
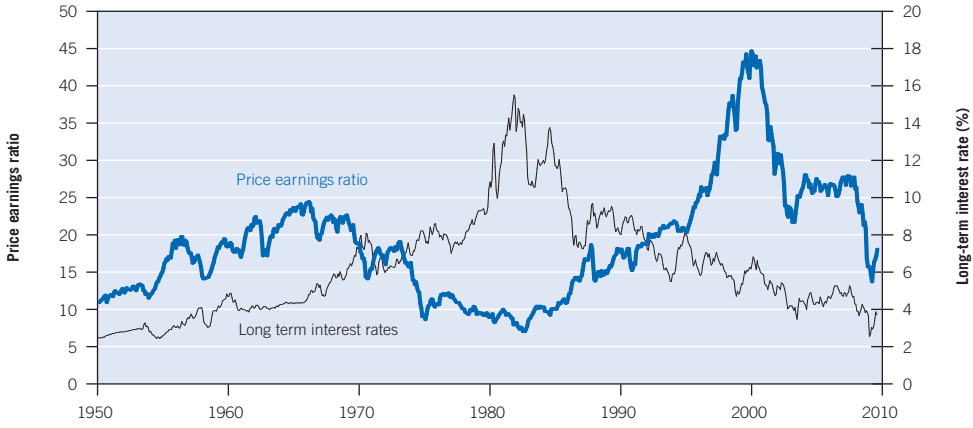


Figure 1.3 **Boom before the bust: P/E ratio and long-term interest rates in the United States (1950 – 2010)**



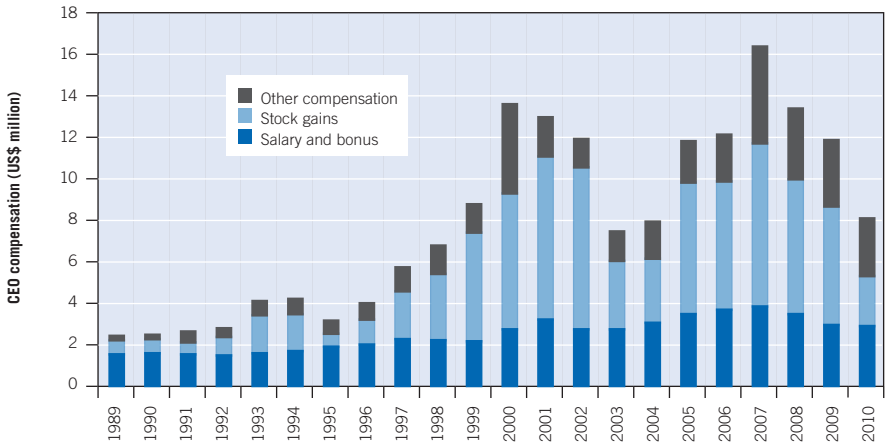
Source: Shiller, 2010.

2. Key drivers of banking crises

Excessive lending and risk-taking are often presented as underlying factors in increases in asset values. One of the key drivers of this excess is implicit or explicit bailout guarantees and other forms of liability limitation. For instance, empirical evidence suggests a link between banking crises and the existence of deposit insurance or other forms of government guarantee to banks in distress. Demirguc-Kunt and Detragiache (2002) find a correlation between the availability of such schemes and the probability of banking crises, and note also that deposit insurance schemes are, in most countries, run and/or funded by the government. Kane (1989), meanwhile, points to deposit insurance as a key driver of the savings and loans crisis of the 1980s.

Another key factor which drives crises is the "irrational exuberance" of investors, which is often incentivized in situations where interest rates are kept artificially low. As figure 1.3 shows, long-term interest rates declined sharply over the two decades leading up the crisis of 2008; meanwhile, the price to earnings

Figure 1.4 CEO compensation based on Forbes annual survey (1989 – 2010)



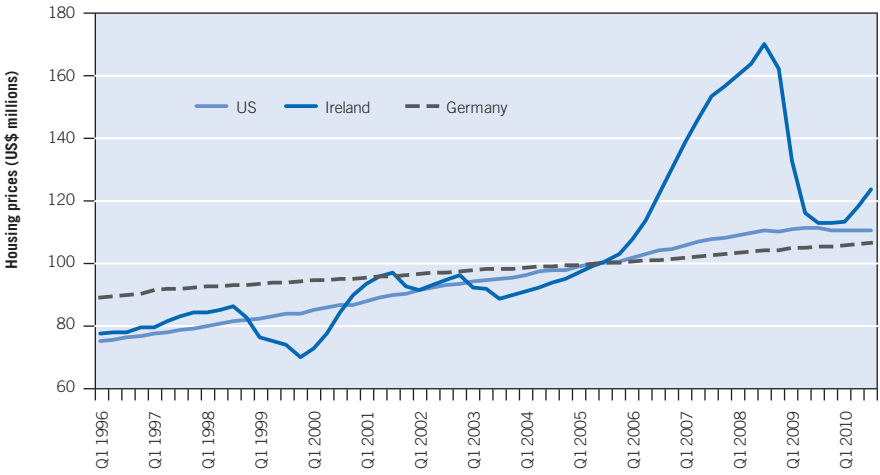
Note: Includes 500 largest firms in the United States.

Source: Forbes, 2009.

(P/E) ratio increased over the same period – falling dramatically during the information, communication and technology bubble of 2001 – signalling a boom period that was marked by overinvestment.

That investors behave irrationally is perhaps not surprising. However, why less exuberant investors do not bet against them, bringing asset prices into line with fundamentals, is less clear. One possible answer is that short selling certain kinds of asset is sometimes difficult (see Lewis (2010) for a journalistic account of the difficulties faced by contrarians who wanted to short sell collateralized debt obligations in the run-up to the current crisis). Without the capacity to short the market, pessimists are constrained and so prices reflect only the view of the optimists (Miller, 1977; Hong and Stein, 2003). Meanwhile, some investors, however well-informed, are not above holding onto what they perceive to be overpriced assets in the expectation of future price increases (Scheinkman and Xiong, 2003), choosing to "ride the bubble" in the belief that that they will be able to exit before it bursts (Abreu and Brunnermeier, 2003). Finally, it is worth noting that an increasing share of CEO

Figure 1.5 Housing prices: Asset bubble of 2007 developments (Q1 1996 – Q1 2010)



Source: OECD (Ireland and Germany); Case-Schiller (United States).

salaries comes in the form of stock options and bonuses that are dependent on quarterly returns (see figure 1.4), a reward structure that encourages risk-taking. These gains were also exceptional in comparison to those of the average worker – highlighting the trend towards increased income inequality, an issue of particular relevance in the context of the 2008 crisis, notably with regard to the deepened global savings–investment imbalances (to be discussed in more detail in Chapter 2).

A second line of thought pursued in the literature maintains that the boom phase is not fuelled by overinvestment, but rather by increased liquidity caused by rising asset prices. The argument maintains that asset price inflation increases funding liquidity by raising the value of the assets that firms hold as collateral. Indeed, in both the United States and the EU the housing prices soared during the period prior to the crisis, more than doubling between 2000 and 2006 alone (figure 1.5).

B. Role of financial sector

As financial crises take root, the nature of the transmission mechanisms and their related impact on the real economy are manifold, with market participants often refusing to interact on the assumption of increased counterparty risk.

1. Contagion

In the first instance, one of the key issues for policy-makers is to distinguish between insolvent and illiquid institutions because, while illiquidity can be dealt with in the short term through an injection of funds, insolvency (where the income produced by the assets owned is insufficient to cover outgoings such as debt payments) cannot. Insolvency, in other words, requires far more painful and potentially risky remedies (Diamond and Dybvig, 1983). Depositors may, for example, decide to withdraw funds from the bank because they lose confidence in its ability to meet its commitments. The potential for self-fulfilling creditor runs arises whenever an entity has liabilities which are of shorter maturity than its assets and its assets cannot be liquidated without losses. Some interpretations of the Asian crisis view it as a liquidity crisis (Chang and Velasco, 1998).

Given that financial crises are systemic events, involving multiple players, markets and regions, the focus on the solvency or liquidity of individual institutions may be too narrow: crises can be said to spread through "contagion". Modern economies, including the financial systems that support them, are characterized by multiple buyer and seller links. When the collapse of a financial institution affects an important node in this network, the impact can rapidly spread, with the failure of one institution depleting the wealth of its counterparties.

Of particular relevance, especially in the context of the current crisis, is the ability and ease with which market securities were traded on the back of the asset bubble (box 1.1). In this regard, the asset bubble and related securitization drew liquidity away from more socially desirable and/or economically productive investments (Allen and Gale, 2000).

Box 1.1 Sub-prime mortgages and liquidity crunch: 2007–09 financial crisis

Sub-prime mortgages are a financial innovation designed to provide homeownership opportunities to borrowers in the United States with a higher risk profile (such as borrowers with low incomes, poor credit histories or limited disposable income). Most of the sub-prime mortgages were issued on a variable interest-rate basis, with the risk of potentially large adjustments to monthly payments if interest rates rose. Instruments of this nature increase the probability of foreclosure.

Institutions (lenders) were "easy" with credit when granting these mortgages, under the assumption that housing prices would continue to appreciate in value. Even if some of the sub-prime borrowers were to default, an ever-expanding housing market would still improve the lender's overall position. However, money market rates increased, inciting foreclosures, as expected, but this occurred at the same time as the housing market and valuations cooled. The lending institutions were therefore left with assets of significantly reduced, and in some cases negligible, value.

Many of these sub-prime mortgages actually never figured on the balance sheets of the lending institutions that originated them. Increasingly, these products had been bundled together with prime mortgages and a variety of assets to be sold on the market – so-called mortgage-backed securities (MBS). The problem was that assets with different risk profiles were bundled together but nevertheless received a high investment grading, making them attractive to international investors, including European banks with free cash to spend asset-shopping.

However, when sub-prime borrowers failed to repay their mortgages, the originating institution was forced to finance the foreclosure with its own money, bringing the asset back onto its balance sheet. This situation left many banks in a financially unviable situation, in a rather short, unmanageable timeframe. In addition, due to the fact that it was impossible to predict how many more of those MBS would return to their balance sheets, banks effectively stopped lending to each other, drying up liquidity substantially, both in the United States and in Europe.

Source: IILS.

Trade links between countries can result in similar repercussions, as argued by Glick and Rose (1999) in relation to the Asian crisis. Sometimes the causal chain is not immediately apparent. When Russia collapsed in 1998, for example, Latin American countries were affected, even though their trade links with Russia were minimal, because Russia brought down long-term capital management (LTCM), which in turn put the US credit market into turmoil, affecting Latin American countries. Contagion can also result from a lack of transparency. Here, a collapse in one part of the system, or in one institution, may be taken as a sign of system-wide danger, leading to a loss of confidence and the shut-down of trade.

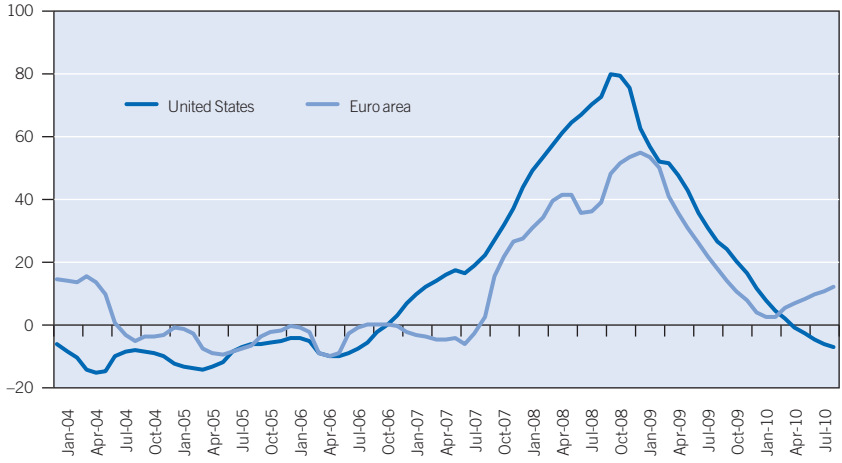
2. Misallocation in capital and labour markets

The economic environment changes abruptly in the aftermath of a crisis, as credit availability, foreign capital inflows and investment dry up (Calvo et al., 2006). According to Dell'Ariccia et al. (2008) and Kroeszner et al. (2007), industries that require large up-front fixed investments are most severely affected in this scenario. However, the borrowing costs for all corporations tend to rise, as illustrated by recent evidence from the EU and the United States, showing that corporate spreads sky-rocketed during the crisis and remain elevated. Moreover, besides the rising capital cost due to stricter bank lending standards during the crisis, corporations' ability to tap into bank funding diminishes. For example, in the aftermath of the 2007–09 crisis, as lending standards became stricter, loans to the private sector declined (see figure 1.6). Even after two years, bank lending has not increased substantially, a circumstance which is proving to be a major handicap for firms that rely on loans for their day-to-day operations.

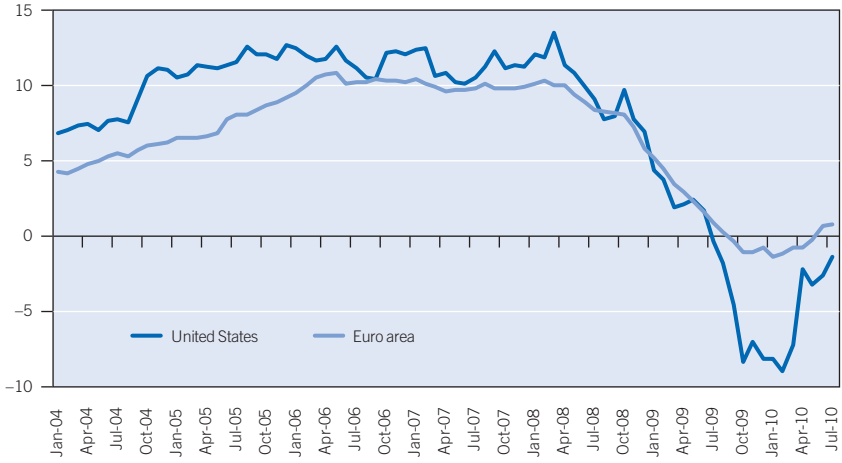
Meanwhile, in terms of the empirical evidence for misallocation, Ohanian (2001) investigates cross-sectoral reallocation during the Great Depression and Benjamin and Meza (2009) during the Korean crisis. Both find that sectors with high productivity, such as manufacturing and mining, experienced larger drops in productivity relative to services and agriculture, which have low productivity. Misallocation problems are exacerbated where banks try to prop up ailing companies that are protected for political reasons, as was the case in Japan where, according to Caballero et al. (2008), Japanese banks had incentives to continue lending to otherwise insolvent firms in order to avoid booking losses and to ensure continued government support. The authors find that, because of this "zombie lending", other, more solvent firms had only limited access to funding which prevented them from improving their productivity or creating jobs as quickly as they would otherwise have done. Bergoeing et al. (2002) make a similar point when comparing the performance of the Chilean and the Mexican economies after the 1980s crisis. Chile recovered faster, they suggest, because it was quicker to return banks which had been nationalized during the crisis to the private sector. Also, Chile reformed bankruptcy

Figure 1.6 Bank lending during the 2007–09 crisis (January 2004 – July 2010)

Panel A: Net percentage of domestic respondents tightening standards for loans



Panel B: Bank lending to the private sector (in percentages)



Source: Global Financial Stability Report, October 2010.

procedures to make default easier. Mexico did not implement these policies, reaping benefits in the short run, but compromising the recovery in the medium term.

Financial crises also have a significant impact on the labour market. One reason why firms may be reluctant to hire new workers during a crisis is that part of the wage bill has to be paid in advance due to worker preference for liquidity or because of time lags in the production process (Neumeyer and Perri, 2004; Schwartzman, 2010). Thus, when the cost of finance goes up, firms become reluctant to hire (Weismer and Weil, 2004). Finally, the allocation problems in capital markets described above may spill over into labour markets, with the most productive firms being unable to hire the best workers (Caballero, 2007).

The available empirical evidence suggests that labour market outcomes during financial crises are worse than during regular downturns, even after controlling for the size of the recession. A recent World Economic Outlook report produced by the IMF finds that both during financial crises and in the recovery phase, unemployment is higher than warranted by the observed drop in output (IMF, 2010e).

3. Demand-side channels and macroeconomic policy

Financial crises also have a significant impact on demand. Increased uncertainty about the economy tends to induce precautionary savings and a shift away from risky investment towards monetary assets (Keynes, 1936). At the same time, because of the crisis, borrowers can face higher interest rates and so consume and invest less (Bernanke, 1983). One obvious way to counter these effects is to lower interest rates, but so doing risks exposure to the so-called "liquidity trap" where potential investors sit on cash positions rather than investing. Governments can try to stimulate the economy through so-called "quantitative easing" (printing money), or by buying long-dated government bonds in the hope of kick-starting the market, a policy which was successful in Japan both in changing asset prices and increasing inflation expectations (Bernanke, 2004).

Talking up the prospects for inflation has been identified as another strategy for increasing liquidity – the basic idea being that losses will be incurred by holding onto cash. This approach works if people believe that the central bank will keep interest rates low even after inflation has picked up. Simple central bank announcements may help, as they do seem to have an impact on market prices (ibid.). However, this is not always a straightforward proposition since central banks usually have a preference for low inflation. One way to sell the idea is to engineer monetary expansions or an expansion of government debt so large that the government cannot plausibly recover them without recourse to inflation (Auerbach and Obstfeld, 2005; Eggertsson and Woodford, 2003).

A final alternative is to use fiscal stimulus. Christiano et al. (2009) use a quantitative model to argue that fiscal policy is likely to be most potent in liquidity trap situations. If nominal interest rates are equal to zero, fiscal policy can increase inflation without increasing the nominal rate, thus decreasing the real interest rate. This gives some ground for optimism that fiscal expansion multipliers under liquidity traps are above the usual estimates, which are typically low (Barro and Redlick, 2010; Ramey, 2009; Mountford and Uhlig, 2009).

4. Shifts in the composition of demand and relative price changes

Financial crises affect not only aggregate demand, but also its composition. While such compositional shifts may seem to be relatively less important, they can have significant impacts on aggregate output if they change the relative prices in a way that makes it hard for firms to pay their debts or to issue new debt. Two benchmarks are of particular importance in this regard: the relative price of foreign goods in comparison to domestic goods (also known as the real exchange rate) and the price of capital goods relative to consumer goods.

Where firms and/or banks borrow heavily in foreign currency, an exchange rate devaluation can increase their liabilities, forcing them to reduce their investment and output. In this context, raising interest rates in order to attract foreign investment and to defend the currency may turn out to be the best

course of action. However, where firms have short-term capital needs, the high interest rate required to defend the currency may end up doing more harm than good by affecting the firm's ability to raise working capital (Christiano et al., 2004). Also, higher interest rates may amplify the drop in asset values, including real estate. This can exacerbate the crisis, since firms use such assets as collateral. Mendoza (2010) and Gertler et al. (2007) construct quantitative models to explore the relevance of fluctuations in the relative price of capital and find large effects. In particular, Gertler et al. argue that an uncompromising defence of the currency may make the situation worse. Clearly, decisions need to be made on a case-by-case basis, with countries where the extent of foreign currency indexation of liabilities is extreme likely to benefit most from a strict defence of the currency.

C. Policy considerations

1. Role of policy during "boom" periods: financial regulation

Monetary policy clearly plays a role in facilitating asset price inflation. Easy monetary policy has been associated with higher asset prices and over-leverage in the financial sector (Adrian and Shin, 2008) – both indicative of the boom phase. Conversely, monetary policy can, if tightened, reverse these trends, especially where there is a tendency to overinvest (Cecchetti et al., 2002). Unfortunately, monetary policy can sometimes be too blunt an instrument. For example, while tight monetary policy may keep asset prices from rising unsustainably, because assets are used as collateral, low asset prices can depress lending, leading to an unnecessary recession.

Importantly, policy-makers may not have enough information to discern the sources of the asset price movements or to judge how dangerous they are. Bubbles are hard to identify empirically (Gurkaynak, 2008) and booms do not always end in financial crisis (Tornell and Westermann, 2005). Even when central bankers have a clear idea of how risky a boom is, the optimal monetary policy is likely to be highly non-linear, as the trade-off between liquidity

and risk of a crash is likely to change with economic conditions (Bordo and Jeanne, 2002).

In this respect, financial regulation can play an important role. Boom–bust cycles often follow periods of financial liberalization reforms (Kaminsky and Reinhart, 1999; Tornell and Westermann, 2005), implying that financial regulation does matter. This is consistent with the excessive risk-taking view of booms, as financial deregulation reforms have typically facilitated risk-taking (see Barandiarán and Hernandez, 1999, and Drees and Pazarbaşioğlu, 1998, for detailed descriptions of the financial deregulation reforms in Chile and the Nordic countries and their aftermath). Moreover, financial market reforms have been successful in generating higher growth (Ranciere et al., 2003). The challenge is to retain these gains while recovering the stability that existed before reform (Brunnermeier et al., 2009).

Even well-designed financial regulations are constrained by a boundary problem. Any financial regulation has to specify which assets and institutions fall within its rules and which do not. This creates an incentive for funds to flow towards unregulated institutions during the boom periods and back to regulated ones during the crisis, potentially amplifying the cycle. Finding the balance in terms of excessive or inadequate financial regulation is therefore a considerable challenge for policy-makers.

2. Moral hazard

The problems of illiquidity and contagion suggest that governments have a role to play in ensuring that financial institutions do not fail. However, bailout guarantees also provide an incentive for bankers to take excessive risk. In order to avoid this, it is advisable to withhold help from insolvent banks and to make bailouts costly for those banks that do receive them. These two insights underpin Bagehot's classic prescription of 1894: first, central banks should lend freely during crises, but not to insolvent banks; second, they should lend only against good collateral and at a punitively high interest rate (Bagehot, 1894). If interest rates are high, banks will want to make sure they repay the government

loan as quickly as they can, having an incentive to withdraw from risky projects and attract private capital.

Distinguishing which banks are illiquid and which are insolvent is not a simple matter. As discussed above, banking crises occur when fundamentals suggest that banks might be insolvent (Gorton, 1988) but theory implies that liquidity problems may induce inefficient liquidations (He and Xiong, 2009). One possibility, suggested by Demirguc-Kunt and Serven (2009), is that the government could utilize the expertise of the private sector by insisting that any loans to banks in distress must be in part privately financed, and that its equity in the recapitalized bank be senior to that of private agents. The government should also try to make sure that it has as much information about the position of financial institutions before the crisis as possible. The information available to the regulators is improved if during normal times transactions are transparent and regulators focus on detecting problems at an early stage.

Given how costly and uncertain the instruments to facilitate recovery are, perhaps the main lesson is that it is best to avoid financial crises rather try to respond once they have happened. During booms fuelled by large expansions in credit, policy-makers should therefore enforce a macro-prudential focus on financial regulation while avoiding overly complex frameworks that constrain economic agents. Once the crisis hits, policies should address the dislocations in the capital and labour market.

It would be imprudent to assume that the financial market on its own is responsible for the onset of the crisis. Indeed, one key factor underlying the crisis is the global savings imbalance, where massive inflows of capital from emerging countries have removed the liquidity constraint for corporations and private households in the United States and a few other industrialized countries, leading to the build-up of large asset price bubbles. Chapter 2 contributes to the debate on the role played by the global savings imbalance, focusing in particular on domestic policies related to social security and wage developments.

DETERMINANTS OF GLOBAL IMBALANCES

2

Key findings

- In the run-up to the financial crisis, huge global imbalances in net foreign asset positions have been built up. A small group of export-oriented developed and emerging countries were financing an ever-larger savings gap in a group of countries that experienced substantial and rising current account deficits. This was a break from the past when such differences in current account positions habitually narrowed again.

- Traditional determinants of current account positions go a long way towards explaining these imbalances, such as a country's net export position regarding primary commodities or its demographic situation (in particular its age-dependency ratio).

- Besides these commonly cited factors, this chapter reveals that soft factors related to social policies and income inequalities, outlined below, have also played a prominent role in these developments and might explain why the current account imbalances have proven to be much more persistent than in the past:

    - Lack of social policies or underdeveloped social protection systems strengthen incentives for private insurance and lead to rising household savings rates, independently of a country's level of development.

- Falling wage shares, related to the fact that in many countries real wages have not been able to follow productivity trends, also raise current account surpluses, mainly as a result of increased corporate profits (out of which savings are typically higher).

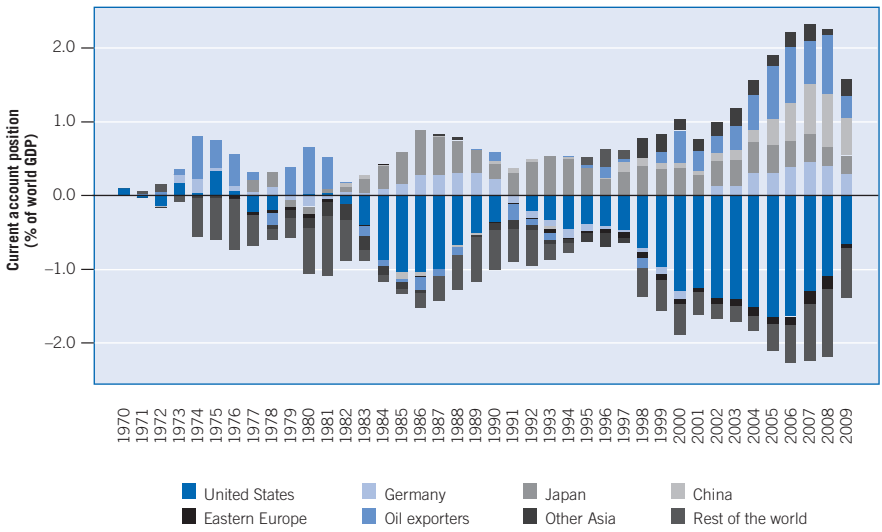
- Finally, rising personal income inequalities have fuelled debt-driven consumption booms, in particular in more advanced countries with well-developed financial markets.

A. Introduction and stylized facts

Global imbalances in investment and savings have been a significant driver of the current financial and economic crisis. The transfer of capital from emerging countries running current account surpluses to developed countries running deficits lowered long-term interest rates and removed liquidity constraints for corporations and private households. These developments have fuelled asset-price bubbles, in particular in the housing sector (Mollerstrom, 2010). Despite a post-crisis correction in these imbalances, current account positions have been corrected only moderately (figure 2.1). Exactly what is driving these imbalances continues to be a matter of dispute, as is the policy response required to address them. This chapter offers an analysis of the underlying determinants of current account positions, focusing on the interactions between current account imbalances on the one hand and changes in labour supply, capital account liberalization, income inequality and social policies on the other.

Disparities in national current account positions have increased substantially since the 1970s (figure 2.1). One of the most striking developments is the increasing convergence in per capita income between developing and high-income countries, the number of converging countries rising from 12 to 65 in the past decade (converging countries here include those that achieved a doubling of the average per capita growth of high-income OECD countries). At the same time, the number of countries categorized as low-income has dropped from 55 to 25 (OECD, 2010). Developing countries have increased their share of global trading volume through stronger links in South–South trade, which,

Figure 2.1 Current account positions by country groupings (1970–2009)



Note: Country groups are as follows – Eastern Europe: Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Slovakia and Slovenia. Oil exporters: Algeria, Bahrain, Cameroon, Colombia, Ecuador, Egypt, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, Syria, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela and Yemen. Other Asia: Bangladesh, Bhutan, Brunei, Cambodia, Fiji, Faroe Islands, Hong Kong, Indonesia, India, Korea, Lao, Malaysia, Maldives, Marshall Islands, Micronesia, Myanmar, New Caledonia, Pakistan, Papua New Guinea, Philippines, Singapore, Solomon Islands, Sri Lanka, Thailand, Timor-Leste and Vietnam.

Source: World Development Indicators.

between 1990 and 2009, grew tenfold in volume (ibid.). On the labour market front, the opening up of large economies such as China, India and the former Soviet Union has brought an additional 1.5 billion workers to the global market. Consequently, global production costs and, particularly, unit labour costs have plummeted.

As a result of these changes, many converging countries, notably China (see box 2.1), have accumulated significant current account surpluses and have become global net creditors, exporting liquidity which has helped to keep global interest rates low (ibid.). In a sense, capital has been flowing "uphill" from developing to advanced economies.

Box 2.1 Making of China's current account surplus

In 2005, China's current account surplus reached a peak of 7 per cent of GDP, despite the fact that, as a major oil-importing country, China's current account balance was severely affected by rising oil prices (UNCTAD, 2006). High exports were maintained despite the fact that domestic demand was also growing rapidly. One of the main drivers of China's increased export competitiveness was the flood of foreign direct investment (FDI) that the country experienced in the 1990s. Foreign investors looking for exposure to the manufacturing sector benefited from a combination of imported technology and low domestic wage rates. Despite the fact that salaries in manufacturing were on the rise in the mid-2000s, with annual increases of between 12 and 16 per cent, unit labour costs (ULC) in the manufacturing sector were falling (ibid.).

B. The determinants of global imbalances

These developments in the current account status of different countries can partly be explained in terms of cyclical factors but, as important as such factors may be, they are unable to fully account for the medium-term trend increase in global imbalances, which are significantly driven by structural factors such as changing demographics, ongoing fiscal deficits, oil dependency and financial market development (Cheung et al., 2010).

According to some economists, notably US Federal Reserve Chairman, Ben Bernanke, one of the key factors in global imbalances is the accumulation of savings in current account surplus countries. This "savings glut" hypothesis proposes that such savings have fed foreign investment and foreign account positions in highly developed, deficit countries such as the United States, supporting the easy credit conditions that fuelled asset price inflation. Another key determinant of the "savings glut" phenomenon – the other side of the coin, as it were – is demographic change. As populations age, the proportion of economically dependent people rises and this has a negative impact on savings and investments. As a consequence, countries in which dependency ratios are high also tend to have larger current account deficits (Chinn and Prasad, 2003; IMF, 2005; Gruber and Kamin, 2007; Chinn and Ito, 2008).

Uphill fund flows have also been described in terms of a "flight to quality" – where cash-rich investors in developing countries look for well-developed, liquid financial systems and high levels of investor protection before placing their money (Mendoza et al., 2007). Another significant driver of uphill fund flows is oil exports. The increase in the oil price during the 2000s, largely driven by increased demand as globalization helped more and more economies to develop, has resulted in the accumulation of savings in oil-exporting countries, which have been recycled back into markets in more advanced economies (reminiscent of the birth of the Eurobond market in 1970s).

A third important consideration is the difference in fundamentals between developing and developed countries, another factor in causing capital to flow "uphill". In developing countries, systemic distortions are particularly important, notably with regard to the lack of advanced technologies and other production factors, such as developed infrastructure and strong institutions, all of which may explain why savings are channelled to countries that provide a more business-friendly environment. To the extent that estimates of total factor productivity (TFP) reflect differences in returns on investment, Gourinchas and Jeanne (2007) show that countries with stronger TFP growth tend to have higher investment rates.

1. The importance of policies promoting export-led growth

Global imbalances in current account positions can also be seen as the result of a shift in the development strategy among surplus nations. Notable in this respect are Asian countries which, in the wake of the Asian financial crisis, have sought to become less reliant on foreign direct investment, focusing more on export revenue as the engine to drive investment and growth.

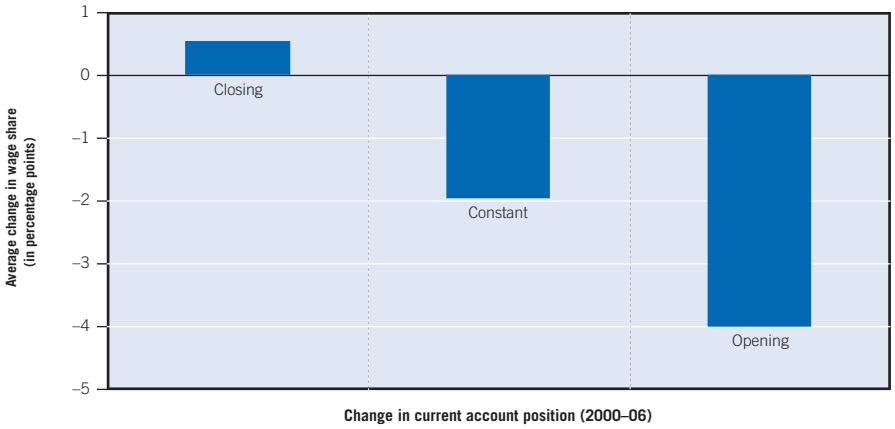
A key aspect of this shift in emphasis has been manipulation of exchange rates, which has had a considerable impact on trade flows. The gain in competitiveness resulting from relatively cheaper currencies is often cited as the cause of

labour market losses in deficit countries, particularly in the case of the US economy. However, it is worth noting that US current account deficits predate Chinese surpluses, and started to deepen from 2003 onwards. Similarly, the United States has increasingly specialized in production areas that do not include its main import areas. It is therefore unlikely that the goods imported from China could be produced at a sustainable level domestically. Rather, imports from China would be more likely to be substituted by imports from other countries instead.

Real exchange rate developments caused by wage developments and changes in unit labour costs, on the other hand, have been decisive in explaining export growth (see figure 2.2). Many surplus countries rely on low labour costs to increase their competitiveness, using comparative advantages in sectors of high labour intensity (Akyüz, 2010). As a consequence, productivity gains have often not been reflected in higher wages, leading to an increase in income inequalities, notably in developing and emerging economies (IILS, 2008; ILO, 2008). However, economic policy based on lower relative labour costs is by no means limited to developing and emerging economies. Indeed, during the period 2000 to 2006, wage shares declined strongly in countries across the global income spectrum, including Argentina, Australia, China, Egypt, Germany, Japan, Norway, Poland, Slovakia and Spain and, to a lesser extent, in Belgium, Canada, the Netherlands, Sweden, Thailand, the United Kingdom and the United States.

One of the key contentions of this report is that a rise in earnings in proportion with productivity growth is a necessary component of the rebalancing process needed to boost domestic demand and to shift from export- to income-led growth. However, even though a shift from export-led to domestic-based growth for surplus countries is advisable from the perspective of sustainable growth, it is recommended that Germany and other European countries strive to keep their current account surplus high (or current account deficits low) due to their rising share of ageing population (Wyplosz, 2010).

Figure 2.2 Wage shares and trade balances (2000 – 06)



Note: Estimates of wage shares are based on manufacturing sector only. Average change in wage shares estimated for countries experiencing closing, constant or opening current account positions between 2000 and 2006.

Source: IILS estimates based on World Bank World Development Indicators and IILS.

2. Public finances have also played a role, albeit a minor one

Another key factor in the development of global imbalances is the need of many advanced economies to fund budget deficits. During the period 2007 to 2010, net government lending increased in almost all G20 countries. The only exceptions were Brazil (which benefited from a very short-lived recession) and Saudi Arabia (thanks to the recent increases in oil prices) (IILS, 2010). In all other G20 countries, public deficits have increased by between 0.3 and 10.6 per cent, with Greece, Ireland, Italy, Portugal and Spain being the largest public debtors in Europe (Spiegel Online, 2010). Deepening deficits reflect measures to cushion the effects of the crisis through automatic stabilizers, mainly consisting of counter-cyclical social security and tax policies, financial sector bailouts and other forms of support, and other discretionary programmes. Governments have also been forced to borrow more as a result of steep drops in tax revenue (IILS, 2010).

A significant proportion of government spending has been channelled into paying unemployment benefits and supporting labour market programmes. Additionally, fiscal stimulus spending has been pursued by many countries. Notable in this respect are China, Germany, Japan and the United States – which, between them, account for an astonishing 78 per cent of overall global stimulus spending (ibid.).

3. Households' savings declined in many advanced economies as income inequalities widened

Shifts in private savings are another important factor in this complex global picture. As economies develop, a growing percentage of people move out of poverty and thereby increase their savings rate – possibly beyond the rate at which those savings can be recycled into higher domestic investment. Household savings are particularly high in many surplus countries, especially in the East Asian region. China's gross national savings (GNS), for example, experienced a huge increase from 39.2 per cent of GDP in 1990 to 53.2 per cent in 2008. The Chinese savings rate remains high even when compared to other Asian major economies such as Japan, which had a GNS of 27 per cent in 2007, and India with 33.6 per cent in 2008.

There is some evidence that improvements in social welfare systems, including the development of pension funds and universal health and education systems discourage precautionary savings to some extent. ILO simulations to investigate the impact of income-led policies on growth perspectives conclude that income policies (including an improvement in the social security system) in Asian surplus countries and overall nominal wage increases of 10 per cent would foster higher growth in the overall Asian region, while simultaneously achieving a decrease in income inequalities (IILS, 2010). According to recent estimates, the Gini coefficient for China has gone up from 0.40 per cent in 2007 to 0.47 per cent in 2010 (Chen, 2010), indicating that Chinese society has become more unequal. We would therefore expect to see household savings remain high. An interesting alternative argument put forward by Wei and Zhang

(2009) suggests that the gender ratio imbalance (1.2 male to 1 female child currently born) in China has led to higher savings in households with sons. Wei and Zhang find that households with sons tend to raise their savings rate even further if they also happen to live in a region with a higher skewed gender ratio. This argument offers an interesting insight into why, despite improvements in the social safety net and insurance coverage in China, household savings are still on the rise.

In striking contrast, the already low savings rate in the United States has declined further during the 2000s, partly reflecting low to non-existent wage increases for those below median income, but also reflecting easy access to credit and predatory lending. In the United States, personal income inequalities remain high. Whereas most of the wage increases went to the upper 10 to 15 per cent of workers since the beginning of the 1990s, the average worker has not experienced a high inflation-adjusted rise in salaries during the past four business cycles (Farrell, 2010). From Q1 2009 to Q1 2010, average hourly earnings for workers in the private sector have risen by 2 per cent, according to estimates of the Bureau of Labor Statistics. According to private-sector estimates by Hewitt Associates, employees' salaries are expected to increase by a mere 2.5 per cent this year; after 2009, the increase of 2010 is considered to be the second-lowest wage increase in history (ibid.). Meanwhile, in the 2000s, US labour productivity rose by 11 per cent.

C. Rebalancing global demand is key to stabilizing the global economy

In order to achieve sustained growth in the coming years, there is a need to rebalance global demand. Deficit countries need to follow a growth strategy based on exports rather than debt expansion, while surplus countries must move from policies encouraging export-led growth to domestic demand creation. The latter can only be achieved by focusing public and labour market policies to increase domestic consumption and investment.

Deficit countries need to address public and social policies, including tax increases for the top earners, increases in minimum wage schemes, income support social schemes, adequate unemployment benefits, health-care coverage and access to education in order to achieve higher personal income equality and lower levels of private debt. For current account surplus countries, income-led domestic growth and strengthened social protection systems will be key to avoiding volatility, notably with regard to sudden fluctuations in foreign demand. More specifically, investments in training and skills to develop human capacity as well as investment in productive capital need to be targeted at cushioning the decrease in labour productivity that is being experienced in many developing and emerging economies as a result of the crisis.

With wage pressures rising due to increased labour shortages, improved worker organization and rising expectations among workers in China and other manufacturing-export countries like Cambodia and Vietnam, higher functional income equalities have already been achieved in some settings, but the situation is constantly evolving. For example, due to rising wage pressures in China and other Asian export countries, a number of corporations have begun to shift production to lower-wage areas within China or to other Asian countries, notably Bangladesh, India, Indonesia, the Philippines and Thailand. To avoid a race to the bottom, to the extent that it is possible, policy coordination at the regional level is desirable.

Measures taken to deal with risk-taking in financial markets and to boost domestic growth include the regulation of financial sector activities through capital controls, such as those that have been implemented by China, India, Indonesia and Korea. Further, managerial compensation and bonus regulation need to be strengthened to limit excessive risk-taking, as exemplified by the strengthening of the disclosure rules for executive compensation in China and Japan. Finally, countries might consider taxation of domestic and international financial transactions to limit speculative trading, following examples in China, which has introduced a stock trading stamp duty (0.3 per cent), or India with a securities transaction tax (0.075 per cent).

1. Some rebalancing can be achieved through currency appreciation

Despite the many calls for currency appreciation in surplus countries, the arguments for such initiatives remain unconvincing. ILO estimates that a 20 per cent exchange rate appreciation of the yuan, for example, would result in only a small decrease in the current account position of China (IILS, 2010). Further, the OECD warns that the appreciation of the yuan might be detrimental not only to Chinese growth but also to the growth of its main trading partners (OECD, 2010). Meanwhile, Thorbecke argues that a reduction of China's surplus by a currency appreciation can only be achieved if an appreciation throughout East Asian supply chain countries can be made effective (Thorbecke, 2010). If a revaluation is to take place, it has to be gradual to avoid negatively impacting domestic demand in China and Chinese imports, which have been rising since the early 1990s (UNCTAD, 2010).

2. Strong employment and wage growth are central to sustainable global growth

In the Asian region as a whole, employment figures are slowly improving. This can be linked in part to a shift away from export-led growth and wage-restraint policies (Dullien et al., 2009; Flassbeck and Spieker, 2007) as well as to countercyclical fiscal stimulus packages that were directed mainly at infrastructure investments (Prasad and Gerecke, 2010). All Asian countries, for which data were available for Q1 2009 and Q1 2010, show positive employment growth, with the exception of Hong Kong, Japan and Sri Lanka. Particularly high employment gains have been achieved in the Philippines. Even though employment rose over the same period in the Republic of Korea, unemployment rates have also risen due to higher labour market participation rates in 2010. These developments need to continue if the global imbalances are to be absorbed, at least partly.

Daunting challenges remain, however. During the crisis, the informal labour market has been increasing since 2008, notably in Indonesia and Thailand. For Indonesia, the share of workers in informal employment increased from 61.3 per cent to 64.7 per cent of the total labour market between August 2008 and August 2009. Thailand's informal employment share decreased sharply in Q2 and Q3 2009 before rising again in Q4 2009 and Q1 2010 to 47.1 per cent. The picture is similar in Cambodia and the Philippines. Cambodian production was greatly affected by the crisis, with a corporate bankruptcy rate of 8 per cent and new firms' registration numbers falling in 2009 by 27 per cent in the formal sector. In the Philippines, declines in formal urban wage employment and inadequate social protection have led to an expanding informal economy. Formal job losses have had a significant effect on rural-to-urban migrants, many of whom are now forced to return to lower productivity agricultural work. Such developments bode ill for stronger wage growth and a more balanced labour market expansion.

A "benign unwinding" of global imbalances will be facilitated by an improvement of the current global financial architecture as well as a more coordinated macroeconomic policy response (Bhattacharya et al., 2008). These would have particularly positive impacts for developing countries that at the margin run high surpluses. One of the major problems they face is the need to keep substantial foreign asset holdings in order to reduce the impact of a sudden cessation of trade. Whereas this is relatively unproblematic for countries like China – as it runs high surpluses and also has high investment levels – challenges remain for other developing countries, in which investment levels are low and thus income volatility is an issue.

RESPONDING TO THE CRISIS

3

Key findings

- In response to the financial and economic crisis of 2008–09, most major economies embarked on an unprecedented level of fiscal expansion in the form of stimulus packages. Among the G20 countries alone, the fiscal stimulus amounted to $2 trillion – roughly 1.4 per cent of the world GDP. More importantly, the response to this crisis stands out because of the degree of coordination among major economies on all fronts – financial, monetary and fiscal.

- An evaluation of country efforts reveals mixed results regarding the effectiveness of these stimulus measures. First, larger stimulus efforts are associated with better overall outcomes, yet a number of countries implemented cost-effective employment and social measures that led to strong job and income gains as well as improved economic growth. Second, the vast majority of studies highlight the fact that, without fiscal stimulus efforts, the effect of the crisis on output and employment would have been much worse.

- Despite the significant labour market and social challenges that many countries continue to face, due to rising government deficits and public debt, several governments have embarked on fiscal austerity measures to rein in public spending. However, cutting or reducing certain programmes, especially labour market and social programmes, while improving fiscal balances in the short run, could undermine the fragile recovery currently under way.

Introduction

In order to address the challenges stemming from the 2008 crisis, countries around the world put in place a range of fiscal rescue efforts. These included new spending on public goods and services, such as tax cuts and transfers, as well as providing stimulus to enterprise, for example in the form of subsidies.

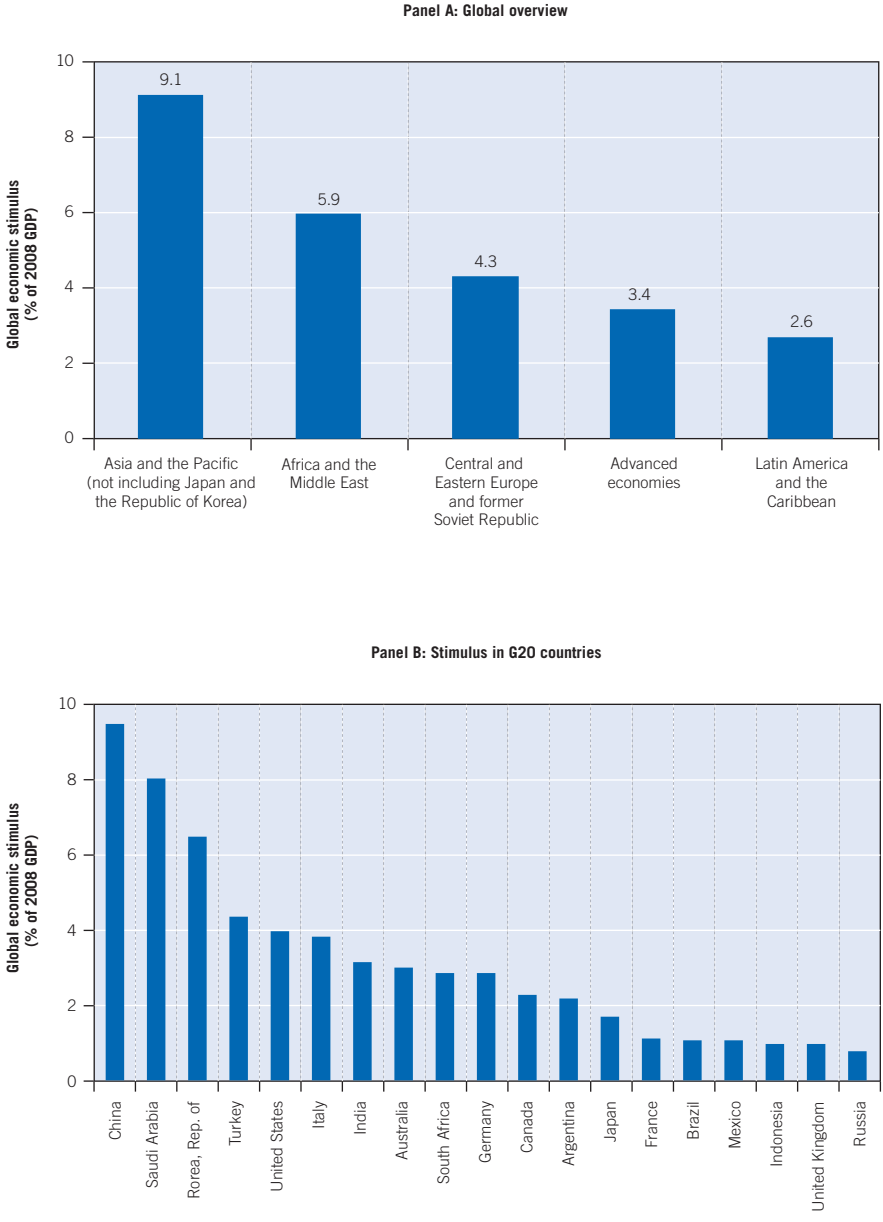
As the crisis deepened and became prolonged, the combination of lower revenues, financial sector bailouts and fiscal stimulus efforts weakened the fiscal position of governments. Against the backdrop of rising public government debt, a wave of fiscal consolidation measures was introduced – focusing often on scaling back labour market and social programmes.

At the same time, employment growth remains weak and there is a clear need to intervene in the near term before the detrimental consequences of inactivity and long-term unemployment become a fixture of the labour market. With this in mind, the purpose of this chapter is to document in more detail the measures adopted across countries and to examine – as far as possible – early evidence of effectiveness. Section A takes a global perspective on assessing country responses, taking particular note of labour market and social policies introduced or expanded. Section B attempts to assess any preliminary conclusions on the efffectiveness of stimulus spending, and section C highlights relevant country examples of addressing labour market and social challenges. The final section discusses issues related to the move towards fiscal austerity.

A. Global stimulus spending: Overview

At first it seemed that the emerging economies would be little affected by the crisis, giving credence to the view that, indeed, they had "decoupled" from the advanced world. However, in early 2009, it became clear that emerging and developing economies also needed to intervene to cushion the fall in economic output and employment, with many affected principally through the trade channel.

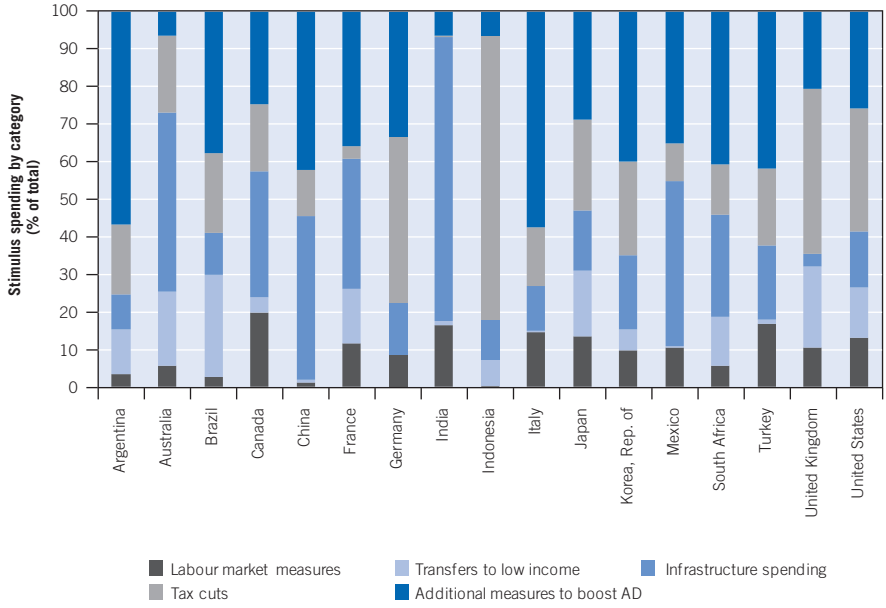
Figure 3.1 Overview of global economic stimulus in response to the 2008 crisis (weighted averages)



Note: Panel A is based on 65 countries.

Source: IILS.

Figure 3.2 Decomposition of stimulus spending by category (as a percentage of total package)

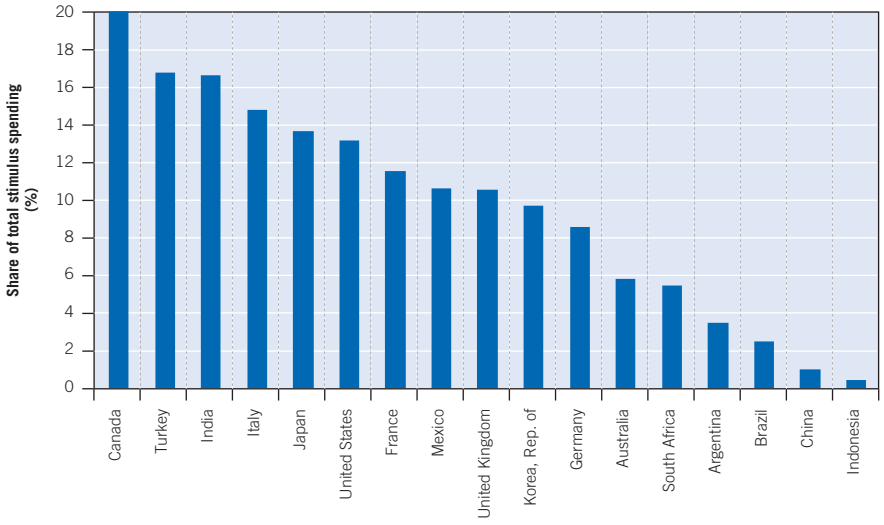


Note: "Additional measures to boost AD" refers to all other measures to stimulate AD (aggregated demand) that could not be classified neatly within the other four categories.

Source: IILS.

In fact, an examination of country responses to the financial and economic crisis reveals that Asia put in place comparably large stimulus packages (figure 3.1, panel A). Asia and the Pacific, not including Japan and the Republic of Korea, spent more than 9 per cent of its 2008 GDP on stimulus efforts (weighted average by country size). China was the main driver of the stimulus spending in Asia as it had a stimulus package worth 12.7 per cent of its 2008 GDP. Among the G20 countries, besides China, countries such as the Republic of Korea, Saudi Arabia and the United States also announced relatively large stimulus packages. Meanwhile, among the G20 countries, Brazil, France, Indonesia, Mexico and the Russian Federation all had stimulus packages of less than 2 per cent of GDP (figure 3.1, panel B).

Figure 3.3 Labour market measures as a share of total stimulus spending



Source: IILS.

Given the diverse nature of the effect of the crisis on different countries, it is perhaps not surprising that the composition of spending also varied. Broadly speaking, advanced economies in the G20 focused mainly on tax cuts while developing and emerging economies targeted infrastructure spending. Several advanced economies also spent considerable resources on infrastructure upkeep and development, but the share of total spending was relatively small when compared to developing and emerging economies (figure 3.2).

Advanced economies spent considerably more on labour market measures than the developing and emerging economies, yet overall the amount allocated to such initiatives was relatively small – around 10 per cent of their total stimulus spending (figure 3.3). This, however, masks to some extent efforts to provide employment and social assistance as many G20 economies relied on existing programmes or automatic stabilizers – such as unemployment benefits and

social assistance – to provide much-needed support. In fact, an estimated 0.4 per cent of GDP in 2008 and 1.6 per cent in 2009 were allocated to automatic stabilizers by G20 economies (IMF, 2009).

B. Effectiveness of stimulus measures

1. Aggregate assessment

There are a number of challenges associated with assessing the effectiveness of stimulus measures. First, the crisis in many ways is still ongoing and thus it is too early for a comprehensive assessment. Second, there is likely to be a discrepancy between announced measures and those actually put in place. Third, a number of countries have announced stimulus spending embedded in their annual budgets, which makes it difficult to distinguish new spending from that which was already planned.

Nevertheless, the purpose of this section is to draw on the existing evidence to provide a partial assessment of what is known to date. An emerging body of literature tends to suggest that government interventions have been vital in reversing a potential collapse in the world economy in the last quarter of 2008 (see table 3.1). In particular, the majority of studies illustrate that the fall in GDP would have been worse in the absence of stimulus and in some cases, such as Asia, it has helped to boost export demand and thus the overall recovery process. Similarly, investments in infrastructure have been successful in keeping domestic demand buoyant. With respect to the labour market, similar evidence emerges, namely that the fall in employment would have been worse without government action. In this regard, the effect of automatic stabilizers has proven to be particularly salient.

2. Regional variation and employment considerations

While at the aggregate level the world economy – set to grow more than 4 per cent in 2011 – appears to have benefited from stimulus efforts, the pace of the current recovery is very uneven: emerging and developing economies have led the global recovery as their output is expected to grow above 6 per cent in 2010, with China and India leading the way (IMF, 2010c). In advanced economies, especially in the EU, growth has remained weak, albeit positive. Moreover, even in countries where GDP has rebounded strongly, such as the United States, the labour market continues to struggle. In that light, the purpose of this subsection is to examine in more detail the current situation and effectiveness of measures by region, notably with regard to employment.

United States

In the United States the fiscal stimulus is generally agreed to have worked well in reducing the impact of the crisis on GDP growth: it is estimated that the stimulus boosted real GDP growth by about 1 percentage point in 2009 alone. With respect to the fiscal stimulus effect on the labour market, the stimulus is estimated to have created between 2.5 million and 3.6 million jobs (USA Today, 2010). Nevertheless, more than 7 million jobs were lost during the crisis, 8.8 million people have been placed involuntarily in part-time jobs and the unemployment rate continues to hover around 10 per cent in 2011.

Europe

The overall fiscal stimulus, including the effects of automatic stabilizers, is estimated to be at 5 per cent of GDP in the EU, greater than in the United States (European Commission, 2009). Despite the recovery in Europe, private demand remains weak and sizeable current account and fiscal imbalances in a number of countries are adding pressure and risk to the economic recovery in the region. While work-sharing programmes have limited job losses in a number of countries, the unemployment rate still stood at 9.9 per cent in January 2011, up from 7.5 per cent in 2008.

Table 3.1 Selected studies on the effectiveness of global stimulus measures

Author(s	Country/tiem coverage	Assessment	Main findings
UNESCAP (2010)	37 countries (1990s–2009)	Positive	Between 7 and 11 million jobs were saved due to the G20's 2009 fiscal policies, representing 29–43 per cent of the G20's total unemployment in the first half of 2009. In comparison, the Asian region's policies were successful overall in offsetting the loss of exports and kept regional 2009 GDP from falling further.
IMF (2010a)	186 countries (1970–2010)	Mixed	Fiscal stimuli have provided an essential impetus for recovery in developed and developing countries. Following a decline of 0.5 per cent in 2009, the world output is projected to increase by 4.2 per cent in 2010. However, growth and recovery in the job market have varied across countries of different socioeconomic levels, even with similar fiscal responses.
Arpaia and Curci (2010)	27 EU countries (1980s–2009)	Positive	During the crisis, many EU countries implemented reforms to combat the discouraged worker effect and keep workers in the labour market, such as decreasing the average hours worked per week. This made the early reduction in economic activity less drastic than originally projected.
EEAG (2010)	27 countries (1990s–2009)	Mixed	The EU's stimulus measures succeeded in curbing deflation and preventing a second great depression. For example, Germany, the EU's largest economy, started to see its levels of investment and domestic demand recover by the end of Q2 2009; however, consumption and GDP began to drop after an initial increase brought about by fiscal stimulus measures.
Wyplosz (2010)	Euro zone – 16 countries (1996–2009)	Negative	Fiscal policies played a small role in the Euro zone's recovery, due to the pre-existing Stability and Growth Pact and 3 per cent public deficit ceiling limiting their use. Budget balances as a percentage of GDP were less in France, Germany and Italy compared to the United Kingdom and United States, implying that less government funding went towards fiscal stimuli in the former three countries than in the latter two.
Kandil and Morsy (2010)	34 emerging countries (1970–2009)	Positive	The presence of international reserves allowed emerging economies to be in a good position to weather the economic crisis and have their stimulus measures succeed, while at the same time avoiding a crowding-out effect. For example, China and Brazil have managed to weather the crisis well due to a rapid increase in export prices, robust demand and constant capital inflows.

World Bank (2010)	14 emerging countries (mid-1980s–2009)	Positive	Due to China's economic activity, its monetary and fiscal stimuli and its inflow of foreign capital, the East Asia and Pacific region overall has recovered from the crisis and its employment, exports and output have returned to pre-crisis levels. The region is doing so well that many national governments are beginning to end their support policies.
ADB (2010)	32 countries (1990s–2010)	Positive	Asia, the first region to recover from the global financial crisis, experienced a strong and fast V-shaped recovery due to large monetary and fiscal stimulus packages. These strongly increased the demand for goods and services and promoted growth, which is projected to reach 7.5 per cent in 2010, up from 5.2 per cent in 2009.
IMF (2010b)	North and South America – 28 countries (1970s–2010)	Mixed	The North American and Latin American regions experienced different outcomes due to their fiscal stimuli. The recoveries in the United States and Canada are propelled by fiscal stimuli, giving the former a 5.6 per cent GDP increase by Q4 2009 and the latter resilient fiscal credibility, increased demand and 3 per cent growth in 2010. In most of Latin America, government fiscal stimuli had small multipliers that did not contribute significantly to growth.
Ndikumana et al. (2010)	41 countries (1986–2009)	Positive	Even with short supply of national resources, African nations enacted a variety of well-timed and targeted policies. Some nations were successful in stimulating domestic demand while offsetting declining exports and supporting local businesses.
World Bank (2010)	18 countries (1980–2010)	Positive	Most Middle Eastern nations improved their short- and long-term outlooks. Others, such as Egypt and Tunisia, spent stimulus money on infrastructure and support for small and medium-sized enterprises (SMEs) to create new jobs. Unlike the public sector, the private sector has received less support and it is uncertain whether this sector will continue to recover when Saudi Arabia's US$400 billion stimulus package expires in five years.
Zandi (2009)	United States (2008–009)	Positive	The American Recovery and Reinvestment Act (ARRA) has dampened the negative impact of the recession on GDP and employment. The greatest economic activity per federal dollar spent has come from the extension of unemployment insurance benefits and social programmes such as food stamps and work-sharing. Infrastructure spending is another measure generating higher economic activity.
The Brookings Institution (2009)	G20 countries (2008–09)	Positive	The article finds that fiscal stimulus played a crucial role in stabilizing the world economy, looking into G20 economies that make up a large portion of the world economy. It suggests that, while legitimate questions regarding the effectiveness of fiscal stimulus exist, the world economy would have faced an even worse outcome had there not been stimulus packages.

Asia

Despite the severe initial impact on output, the region has staged a spectacular V-shaped recovery, reminiscent of its rebound from the Asian crisis. In terms of composition, Asia's fiscal stimuli were narrowly focused on public spending, specifically infrastructure endowments, which had the effect of increasing direct private demand for goods and services to compensate for the significant loss of foreign demand (ADB, 2010). Challenges remain, especially with regard to levels of informality, which have increased in a number of countries, as well as the overall level of social protection, which continues to drive excessive savings (and related imbalances).

Latin America and the Caribbean

Most countries in the Latin America and Caribbean (LAC) region did not observe huge drops in GDP: the overall growth rate fell from 5.3 per cent in 2007 to 2.2 per cent in 2009 – still a positive growth rate, unlike that in advanced economies (IMF, 2010). Strong domestic demand and good fundamentals (including sound financial systems and solid balance sheets) are driving recovery in the region (as are higher commodity prices). In terms of labour market performance, the unemployment rate has been relatively stable with the unemployment rate steadily decreasing in many countries. Overall, the labour market did not see significant losses in the region.

Sub-Saharan Africa (SSA)

The global financial and economic crisis hit the continent mainly via deteriorated terms of trade, reduced demand for exports, decline in FDI, remittances, tourism and aid inflows (Kasekende et al., 2010). Compared to previous periods of crisis, however, SSA is recovering quickly, a circumstance which owes much to the fiscal packages adopted in emerging SSA economies such as South Africa (IMF, 2010c). Unfortunately fiscal policies have not had the same degree of positive effect on job growth. South Africa, for example, saw its employment decline by 2,473,000 jobs between the third quarter of 2009 and the first quarter of 2010 (Kucera et al., 2010).

Middle East and North Africa

The Middle East and North Africa (MENA) region had been emerging from the crisis relatively well – owing much to the rising demand and price of oil – until the popular uprising that has swept the region and has brought the recovery to a halt. For many MENA countries, the fiscal policy played a critical role in cushioning the impact of the global crisis and supporting the region's recovery (Tzannatos et al., 2011). GDP growth for the MENA region is forecast at 4.5 per cent in 2010 and 4.8 per cent in 2011, although these figures are likely to change depending on how the popular uprisings are resolved in the region (IMF, 2010c). The labour market conditions, however, are particularly troubling in the MENA region to the extent that the recent social unrest seems to be closely linked to the high unemployment situation, especially among youth (ILO, 2010).

C. Addressing labour market and social challenges: Country examples

As highlighted above, in many cases, while the aggregate impact of stimulus on growth appears to be positive, the results in terms of labour market are somewhat mixed, i.e. although efforts have mitigated the impact on employment, the extent, breadth and quality of the employment recovery pales in comparison to the recovery in growth. This section will document a number of country-level measures in place, such as: (i) measures to keep workers tied to the labour market; (ii) income-oriented initiatives; (iii) well-designed social protection measures; and (iv) employment-friendly macroeconomic measures.

1. Keeping workers tied to the labour market

- Canada: The Work-Sharing Programme helped companies and workers to continue to work together productively through difficult times. The Work-Sharing Programme – which existed prior to the crisis – was extended by 14 weeks, then by an additional 26 weeks (and may last up to 78 weeks).

- The Republic of Korea: In 2009, the Korean Government introduced a comprehensive package of measures designed to retain and create jobs through a Grand Social Consensus between the social partners and civic groups. Based on this accord, subsidies for small and medium-sized enterprises (SMEs) rose from two-thirds to three-quarters of wages, while for large enterprises subsidies increased from one-half to two-thirds of wages. Nearly 30 per cent of workplaces with 100 or more employees participated in a job-sharing scheme, which is estimated to have retained a minimum of 90,000 jobs.

- Germany: Employment stability was achieved largely through initiatives and measures aimed to adjust working time. Indeed, at the enterprise level, the adjustment of working hours to accommodate rising or declining output took place thanks to a number of mechanisms including reductions in overtime, fewer regular working hour, and working-time accounts. These three measures alone accounted for over half the reduction in hours worked. The success of these measures is grounded in effective social dialogue – as they are often a product of negotiated worker–employer agreements or firm-level pacts –reinforced by government support through Germany's short-time work programme (Kurzarbeit).

2. Income-oriented initiatives

A recent ILO study, entitled Global Wage Report 2010/11 – Wage policies in times of crisis, shows that global wage growth was cut in half in 2008 and 2009. Based on a dataset comprising 115 countries, the report shows that growth in average monthly wages declined from 2.8 per cent in 2007 to 1.5 per cent in 2008 and 1.6 per cent in 2009. Furthermore, excluding China from the aggregate, the global average wage growth dropped to 0.8 per cent in 2008 and 0.7 per cent in 2009. This shows that there are considerable regional variations in wage growth. Some countries put in place policies to prevent the decline in wages and maintain the purchasing power of individuals and households.

- Canada: The Wage Earner Protection Programme (WEPP) – which came into effect on 7 July 2008 – provides financial assistance to people who lose their job as a result of employer bankruptcy. As part of the Government's Economic Action Plan, the WEPP was expanded to provide additional financial assistance and improved economic security to Canadian workers during the economic downturn.

- United States: In February 2009, the American Recovery and Reinvestment Act (ARRA) authorized a temporary Federal Additional Compensation (FAC) programme that provided a $25 supplement to the weekly benefit allowance paid by states to eligible unemployed recipients at an estimated cost of $8.7 billion.

- Cross-country efforts: There is an increasing recognition that minimum wages serve as a social floor for wage adjustments and also as a buffer against wage deflation. At the same time, minimum wage increases can act as a fiscal stimulus, by boosting consumer spending. During the crisis, roughly half of the world's economies increased minimum wages (such as Brazil, Japan, the Russian Federation, the United Kingdom and the United States).

3. Well-designed social protection policies

Meanwhile, crisis tends to present an opportunity to either introduce new social programmes or to revamp old ones in order to help families and individuals endure the crisis. One of the most effective ways of putting money into the hands of people is conditional cash transfer schemes. During the crisis, social and cash transfers not only assisted those in need but, by putting cash into the hands of those most likely to spend it, helped to shore up household consumption. For this reason, countries that strengthened their policies towards income transfers managed to recover faster than others.

- Argentina: The Government created a new programme, Asignación Universal por Hijo para Protección Social, which rationalizes the different social programmes within one major child benefit programme. In October 2009, the new programme extended child benefits to unregistered workers earning less than the minimum wage, the unemployed, domestic workers and self-employed workers with very low incomes. As of 1 December 2009, 2.7 million children and adolescents were registered, about 55 per cent of the eligible target population. If the programme achieves universal coverage, the total cost of the non-contributory component would equal about 1 per cent of GDP.

- United States: The American Recovery and Reinvestment Act (ARRA) allocated an estimated $48 billion to the Supplemental Nutrition Assistance Programme (SNAP) which provides assistance to low-income families in the form of food vouchers. Almost all (97 per cent) of SNAP benefits are redeemed in grocery stores and at farmer's markets within 30 days. According to the Department of Agriculture, every $5 in new SNAP benefits generates $9.20 in total community spending.

4. Employment-friendly macroeconomic measures

- Brazil: The reduction in the industrial production tax (IPI) gave an important boost to job creation due to the strong employment content – both forward and backward linkages – of the automobile industry. The initiative is estimated to have saved up to 60,000 jobs and the Instituto de Pesquisa Econômica Aplicada (IPEA) estimates that each R$1.00 spent on cars has a multiplier effect of R$3.76 on aggregate output.

- Indonesia: Stimulus spending focused on cutting personal income taxes in an effort to boost domestic consumption, resulting in strong spillover effects in related sectors. In fact, preliminary estimates show that more than 30 per cent of the jobs created between February 2009 and August 2010 were due to the stimulus package – 1.2 million out of 3.7 million jobs (IILS and ILO, 2011).

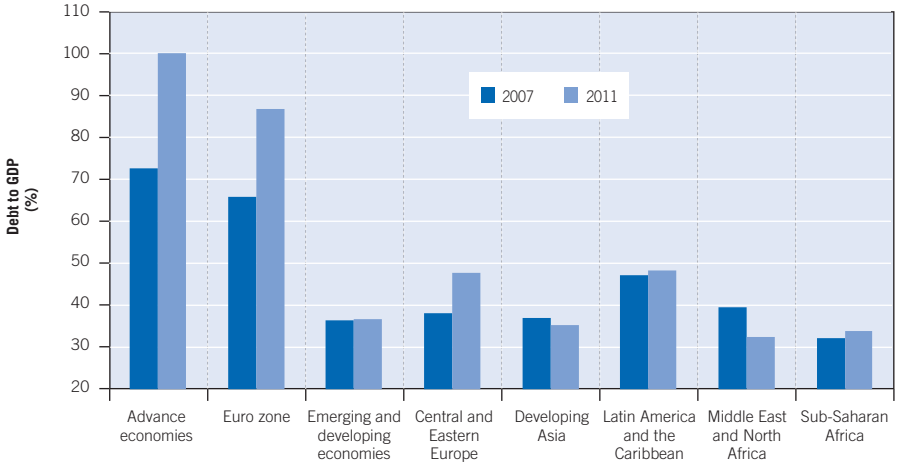
D. Austerity measures

1. Shrinking fiscal space raises the need for fiscal austerity

The global response to the crisis was unprecedented. In the first instance, at the onset of the crisis, governments – particularly in the EU and the United States – injected significant resources into stabilizing the financial sector. Second, as the above sections have demonstrated, governments took decisive fiscal action to expand existing programmes and introduce new ones in an effort to cushion the fall in output, spur job creation and provide support to the most vulnerable.

As a result, public finances have deteriorated substantially over the past three years. The challenge is particularly acute among advanced economies, where debt-to-GDP ratio has risen by nearly 30 percentage points and is expected to reach 100 per cent in 2011 (figure 3.4). Similar increases have occurred in the Euro zone. Debt levels have increased in other regions too, but to a lesser extent and levels remain comparatively low.

Figure 3.4 Debt to GDP by country grouping 2007 and 2011



Source: IMF.

As a result, pressures have mounted for governments to rein in spending and cut back on existing programmes in an effort to get public finances under control. For some countries this is of critical importance – the conundrum, of course, is that countries which are facing fiscal constraint are often those that continue to be confronted by high unemployment. This is particularly the case in the Euro zone where unemployment rates remain close to double-digit figures and long-term unemployment is above 40 per cent. This raises an important question of the size and composition of fiscal austerity.

2. Fiscal consolidation will take place over the coming years in most countries

Currently, most G20 and other major countries around the world anticipate enhanced fiscal consolidation measures being put in place, with announced fiscal plans typically covering the period up to 2013. A few notable exceptions to the general trend of implementing immediate sizeable fiscal consolidation measures include Argentina, Brazil and Indonesia, where the recent global crisis had a limited impact on national budgets. The overall policy reorientation towards fiscal consolidation is consistent with the Toronto Declaration of 27 June 2010 where the G20 countries committed themselves to halving their headline deficits by 2013 and stabilizing their debt ratios by 2016.

The EU Member States have been at the forefront in combating fiscal deficits as they have laid out adjustment plans in their Stability and Convergence Programmes, including country-specific requirements regarding the size and speed of adjustment to reduce the overall deficit to 3 per cent of GDP between 2012 and 2014 (IMF, 2010d). In particular, the United Kingdom announced the biggest spending cuts for decades to restore public finance with all major areas of government services, including public sector employment, departmental budgets and welfare programmes, hit hard. In terms of G20 economies in total, the consolidation plans are estimated to strengthen the cyclically adjusted

Table 3.2 Fiscal stimulus vs. consolidation packages for G20 countries and selected EU countries

	Amount of announced fiscal stimulus package	Fiscal stimulus as % of GDP (2008)	Amount of fiscal consolidation	Fiscal consolidation as % of GDP (2009)
Argentina	AR$32.18bn	3.1		
Australia	A$67.90bn	5.8		
Brazil	US$20bn	1.2		
Canada	C$51.61bn	3.2		
China	CNY4000bn	13.3		
Denmark		3.1	DKK24.5bn	1.5
Estonia			EEK20bn	9
France	€26bn	1.3	€100bn	5.1
Germany	€81bn	3.3	€80bn	3.3
Greece			€30bn	13
Hungary	HUF3200bn	12.0		1.6
India	Rp1860bn	3.5	Rp55bn	0.1
Indonesia	IDR69300bn	1.4		
Ireland			€13.85bn	8.5
Italy			€24.9bn	1.6
Japan	JPY56800bn	11.2		
Latvia			LVL1bn	7.6
Lithuania			LTL5.3bn	5.6
Netherlands	€6bn	1.0		2.1
Portugal	€2.18bn	1.3		3.4
Republic of Korea	W67200bn	6.6		
Romania			€1.7bn	1.4
Russia	RUB1576bn	3.8		
Saudi Arabia	SAR 62.4bn	3.5		
Slovenia	€0.86bn	2.3		4
South Africa	ZAR92.13bn	4.0		
Spain	€16.67bn	1.5		8.2
Turkey	TL57.87bn	6.1		
United Kingdom	£20bn	1.4	£128bn	9
United States	$787bn	5.5		

Source: IILS estimates based on national sources; OECD (2009b); IMF (2010b); Zhang et al. (2009).

balances (CAB) from about 5.5 per cent of GDP in 2010 to about 2.5 per cent of GDP in 2013, although this figure is still weaker than the pre-crisis CAB (ibid.). Regarding the size of fiscal consolidation, not all countries have clear-cut plans but most countries do anticipate significant scaling back in government finance (see table 3.2). Regarding specific methods to relieve constraints in fiscal space, most G20 fiscal consolidation plans consider both expenditure and revenue measures, though more emphasis is placed on expenditure measures in general.

3. Austerity measures in the current form are ill-conceived

For the time being, the overview of major fiscal consolidation measures by country shows that austerity measures have been poorly designed. In the first instance, in an attempt to increase government revenue, many countries have increased various taxes (see table 3.3). Some of such tax increases can have a disproportionate effect on low-income earners unless combined with well-designed rebates and exemptions. Thus, increasing regressive taxes can only exacerbate income inequalities, a factor which was central to the onset of the crisis.

Second, efforts to control the expenditure side of the balance sheet have often focused on scaling back labour market and social programmes. In light of the exceptional assistance provided by governments, some reversal of earlier programme initiatives is to be expected. However, given that the labour market continues to face numerous challenges, cuts of this nature are ill-conceived. Moreover, as this chapter has demonstrated, generally speaking labour market and social measures have accounted for a small percentage of overall stimulus efforts.

Indeed, cutting back on stimulus programmes too soon, while fiscal balances in the short run, is likely to undermine the fragile recovery improving that is under way. What is needed instead is carefully designed labour market and social measures that reinforce growth prospects. Chapter 4 will shed light on

Table 3.3 Fiscal consolidation across selected countries

	Details of consolidation measures	Projected consolidation period
Denmark	Freeze in several social benefits, reduction of unemployment benefits duration and introduction of ceiling on family benefits	2010–13
Estonia	Increase of VAT (by 2 percentage points) and excise taxes, social benefit decreases (health, pensions), operating spending cuts, (temporary) increase in second pillar pension contributions, land sales, discretionary spending cuts	2011–14
France	Cuts in public pensions, health care and public administration, rise in retirement age (from 60 years to 62 years by 2018), increase in taxes on capital, increase in top income tax rate by 1 percentage point	2010–13
Germany	Consolidation from additional taxes, cuts in spending on social security and labour market policies and cuts in military and administrative expenses	2010–14
Greece	10% reduction in general government expenditure on salary allowances, public sector recruitment freeze and drastic reduction in the number of public bodies/entities linked to local authorities	2010–14
Hungary	Cuts to the public sector (reduction of wages, elimination of certain benefits), six-year tax for financial institutions, reduction of bureaucracy for investors, ban on foreign exchange mortgages	2010–13
Ireland	Tax increases, spending cuts (public sector wages, social welfare benefits)	2009–10
Italy	Public sector hiring freeze and public sector wage cuts, cuts in health-care spending, reduction in transfers from central to regional and local governments	2010–12
Latvia	Increase of VAT by 3 percentage points, introduction of capital income tax, increase of personal income flat tax rate by 3 percentage points	2009–10
Portugal	Reduction in public sector pay and hiring, increase in VAT and taxes on high-income earners	2010–13
Romania	25% reduction in public sector wages, 15% reduction in pensions and unemployment benefits	2010
Spain	Cut in public sector's jobs and pay, introduction of new income tax, cuts in public pension	2010–13
United Kingdom	Child trust fund abolished and employment programmes cut, civil service recruitment freeze, increase in VAT by 2.5%	2010
United States	Freeze of non-security discretionary funding for three years by cutting/reducing 120 programmes that are ineffective, public sector pay freeze	Start 2011

Source: IILS.

how best to design and implement programmes that address the immediate labour market challenges while being mindful of the financial constraints. In the meantime, some of the measures – notably tax increases and cuts in social spending – require particular attention in order to bring a balanced approach to fiscal consolidation.

Tax increases

Most G20 and other European countries have announced and implemented plans in the period of 2009–11 to raise revenue through introducing and increasing taxes of various kinds. Taking various taxation measures by G20 economies into account, increases in personal income tax, corporate income tax and social security contributions represent approximately half of all revenue measures and increases in value-added tax (VAT) and excise taxes represent approximately one-quarter (IMF, 2010d).

- *Corporate tax*: Iceland plans to increase its corporate tax rate from the previous level of 18 per cent to 20 per cent in February 2011 (all tax rates presented here and in the following and unless indicated otherwise are taken from http://www.worldwide-tax.com). At the same time, it is noteworthy that a number of countries, including Canada, Hungary and Japan decided to reduce their corporate tax rates in 2010.

- *Value-added tax (VAT)*: Countries such as Greece, Estonia, Mexico, Poland, Portugal, Spain, Switzerland, Turkey and the United Kingdom all plan to increase their VAT. Specifically, Greece will increase its VAT rate from 21 per cent to 23 per cent; Estonia from 18 per cent to 20 per cent; Switzerland from 7.6 per cent to 8 per cent; Poland from 22 per cent to 23 per cent; and Spain from 16 per cent to 18 per cent. Portugal will increase VAT by an additional 2 per cent (IMF, 2011) and the United Kingdom by an additional 2.5 per cent to 17.5 per cent from the previous 15 per cent (BBC, 2010a).

- *Excise tax*: Greece, Mexico and Spain expect to increase their excise taxes, with Spain imposing higher excise tax on tobacco and Greece imposing 10 per cent excise taxes on alcohol, tobacco and fuel. Mexico will increase excise tax as part of its tax package worth 1 per cent of its GDP, including VAT, excise and income tax (IMF, 2010a).

- *Financial sector tax*: Italy plans to impose an additional 10 per cent tax on the financial sector in 2011. France plans to impose tax on bonuses paid by French banks to employees.

- *Green tax*: France, Germany, Ireland, the Republic of Korea and South Africa all plan to either introduce or extend their green taxes (IMF, 2010d).

- *Social security contributions*: The Republic of Korea and Russia will reduce their fiscal burden through increasing social security contributions.

Cuts in social spending

Alongside proposed tax increases, many G20 and other European countries plan to cut their social spending to reduce government expenditure as part of their fiscal consolidation efforts. Overall, spending cuts largely consist of reductions in public sector wage and employment, social transfers, labour market programmes and public investment.

- *Reduction in public sector wage and employment*: Countries such as Greece, Ireland and the United Kingdom anticipate reduction in public sector wage and employment. Greece is imposing wage cuts and tariff increases in public enterprises and increases in short-term contracts in the public sector; Ireland is reducing its public payroll and discretionary expenditure; and the United Kingdom expects up to 500,000 public sector jobs to disappear by 2014–15 (BBC, 2010b).

- *Health-care reform: Australia, France, Italy, Turkey and the United States* all plan to implement health-care reforms to tackle their health-care cost. For instance, the United States intends to reduce the growth of Medicare payments to providers, increase payroll taxes for Medicare and increase excise tax on expensive health plans through its health-care reform. It is projected that federal deficits will be lowered by US$143 billion by 2019 (IMF, 2010a).

- *Pension reform*: Australia, China, Italy, the Republic of Korea and Sweden plan to take reform measures affecting their pension systems. China plans to address structural deficits of old-age insurance schemes in urban areas and the Republic of Korea plans to set up a public pension fund management company, operating in such a way that pensions will be reduced and contributions will be increased for special occupational pensions currently in deficit (ibid.).

- *Reductions in other social transfers*: Many countries are taking steps to reduce their social transfer expenditures. Greece will reduce its social transfer expenditures; Ireland will reduce non-progressive social welfare benefits; Spain will reduce its unemployment benefit transfers (IMF, 2011); and the United Kingdom will implement new welfare savings consisting of withdrawing Employment and Support Allowance – the replacement for incapacity benefit – for some categories of claimants. This last step is expected to raise £2 billion (BBC, 2010b).

- Reduction in labour market and public investment programmes: A number of countries plan to commit themselves to scaling back their labour market and public investment programmes. Spain will reduce its subsidies to wind-power producers (IMF, 2011); the Republic of Korea, Russia and Turkey all plan to prioritize their public investments more effectively and allocate resources to priority economic and social infrastructures; and the United Kingdom plans to reduce its net public investment from 3.3 per cent of GDP in 2008–09 to 1.25 per cent of GDP by 2013–14 (IMF, 2010a). However, countries like Saudi Arabia and South Africa will continue to keep intensive public infrastructure investment in place.

POLICY CONSIDERATIONS FOR A SUSTAINABLE RECOVERY

4

Key findings

- The Global Economic Linkages (GEL) model developed at the International Institute for Labour Studies shows that spending on labour market programmes can help jobseekers to find new employment opportunities more rapidly, while at the same time sustaining disposable income and demand and providing the basis for sustainable and more stable economic growth. The model argues for increased recourse to active labour market programmes (ALMP), as opposed to general government spending, as they can improve labour market intermediation to avoid further skills erosion and labour market detachment – a critical issue currently confronting the EU countries.

- There are also important job quality concerns: during the crisis, temporary workers were often laid off in favour of full-time employees and formal jobs were replaced by informal ones. There is a risk that, if new job creation is disproportionately non-standard in nature, overall job quality will deteriorate. The experience of the Republic of Korea, following the 1997 Asian Crisis, demonstrates that poorly designed labour regulation can exacerbate labour market duality. Reducing the current job quality gap will not only achieve

equity objectives but, with the right policy mix, it can enhance competitiveness and future resilience to economic shocks.

- Recognizing the interplay between employment and social policies on the one hand and macroeconomic policies and economic growth on the other can be key to an inclusive recovery. Indeed, well-designed policies can have important mutually reinforcing effects. Policy planks in isolation are insufficient to address the challenges at hand.

- Preliminary evidence suggests that the internationally coordinated response to the financial and economic crisis proved important in limiting the damage in terms of loss of output and employment. However, the combination of rising debt concerns in some economies, coupled with persistently high unemployment rates in others, has led to an equally disharmonized round of measures (for example, wage and currency devaluations, which could undermine the recovery with a race to the bottom ensuing). A renewed spirit of international solidarity is needed to coordinate policy efforts and ensure that the recovery is job-rich, inclusive and fair.

Introduction

In the second half of 2009, world economic growth returned to positive territory but, as noted at the outset of this report, the recovery is fragile and uneven, and while developing and emerging economies have rebounded strongly, growth in advanced economies has been generally lacklustre. Moreover, the world economy is expected to grow at a robust 4.2 per cent in 2011 (IMF, 2010e), yet in many countries unemployment remains high and well above pre-crisis levels (ILO, 2011). In this regard, it has become increasingly evident that economic growth without job creation is no longer sustainable. Recent episodes of social tension have highlighted the acute disparity between economic and social progress and have confirmed the empirical evidence, which illustrates that unemployment – rather than GDP growth – is a more important factor in explaining social unrest (IILS, 2010).

Even in regions where employment growth is positive, for example, it is not strong enough to offset the growing number of individuals entering the labour market. There are also concerns about the quality of job growth in some settings; precarious employment is on the rise and underemployment is growing. In other settings, employment continues to decline and there are indications of increasing labour market detachment, particularly among young people. Unemployment brings with it large economic and social costs, not least in terms of the threat it poses to economic recovery itself.

In the case of the European Union, unemployment rates continue to hover around 10 per cent. The problem is particular acute among youth, whose unemployment rates have risen from 16 per cent in January 2007 to over 20 per cent in January 2011. At the same time, however, some sectors are showing signs of recovery, often characterized by skill shortages. Indeed, skill requirements have changed since the onset of the crisis but the skill set of workers is eroding: long-term unemployment in the EU-27 is over 40 per cent on average.

Although the challenges are well-established, policy-makers are struggling to reconcile the urgent need to support job creation with fiscal constraints. Rising debt and deficits, especially in the EU, have triggered a wave of fiscal consolidation packages. The announced size of these packages is substantial, often going beyond the initial stimulus that these countries had enacted at the onset of the crisis. More worrying is the fact that many of the cuts have centred on the labour market and social programmes.

Yet, as Chapter 3 illustrated, some countries have fared better than others, especially in terms of labour market outcomes – even for a similar decline in output. Also, although financial crises are relatively new in the context of the EU, they have been commonplace elsewhere. Against this background, the purpose of this chapter is to attempt to shed light on the manner in which employment and social policies can successfully contribute towards mitigating current labour market challenges.

A. Focus on quality job creation

1. Policy measures, notably those to spur job creation, need not be costly

In the context of fiscal austerity, it important to remember that measures need not be costly to be effective. Of course, the initial conditions of countries played an important role in: (i) the extent to which they were impacted; and (ii) their capacity to face the challenges of the global crisis. Indeed, the fiscal position and general state of public finances were instrumental in the ability of countries to take additional action immediately and ensure that measures were not compromised as the crisis became prolonged. In this regard, automatic stabilizers were crucial to ensuring that support was immediate but, mainly, sustained.

The fiscal response of countries to stimulate domestic demand and to mitigate the effects of the steep declines in output is well-documented in Chapter 3. At the aggregate level, more spending seems to be associated with better labour market performance, as unemployment trends over the past two years suggest that developing economies have fared comparably well.

Importantly, some countries spent significantly less than the average but still managed to successfully promote growth and employment. For example, the fiscal stimulus packages of Brazil and Indonesia – at 1.2 and 1.4 per cent of GDP – were among the lowest in the G20 economies. Yet, despite their relatively small fiscal stimulus packages, both of these countries fared well by most standards in the context of the current crisis but especially so in terms of labour market and social outcomes. In terms of employment-oriented measures, a range of other countries introduced cost-effective labour market measures (table 4.1).

Table 4.1 Cost-effective country examples of labour and social policies

Angola	Universal cash transfer to children under five: total cost 0.66% of GDP
Argentina	Extension of *programa familias por la Inclusión social*: total cost 0.12% of GDP
Canada	Extension of maximum duration of employment insurance by five weeks: additional costs 0.08% of GDP
Chile	Additional public works programmes: additional costs 0.5% of GDP
India	Increase in geographical extension of national rural employment guarantee scheme: additional cost 0.3% of GDP
South Africa	Extension of social assistance, increase in budget for low-income housing projects: additional cost 0.7% of GDP

Source: IILS.

2. Employment policies can help to stimulate aggregate demand

More and better use could be made of active labour market programmes (ALMP) to limit employment losses and keep workers tied to the labour market. Among other things, investments in public employment services and training can enhance labour market intermediation (the mechanisms or institutions that bring together jobseekers and employers) and improve the match between demand and supply of labour. Moreover, spending of this nature has a positive fiscal multiplier effect on output as a result of higher wages and employment (see box 4.1 and Appendix). In addition, the benefits of such investments are greater when spending takes place in a period of under employment. Finally, despite initial outlays, over time the fiscal position actually strengthens due to the overall improvements in employment and wages which boost tax revenue and reduce outlays on benefits such as unemployment assistance. In fact, in the medium term, public debt recovers to similar levels as in the baseline scenario. This experiment compares general government spending with ALMP. Fiscal stimulus may take many other forms such as tax cuts or infrastructure spending, whose efficiency is not assessed here. Comparing the performances of ALMP to a larger set of alternative policies would complement the present exercise.

3. Quality jobs through effective labour regulation

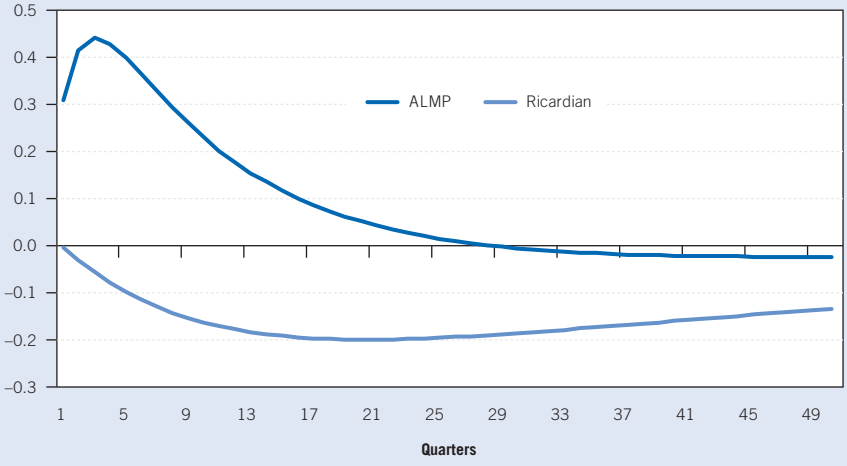
Simply creating new jobs, however, is not enough. During the crisis, temporary workers were often laid off in favour of full-time employees and formal jobs were replaced by informal ones. There is a risk that, if new job creation is disproportionately non-standard in nature, overall job quality will deteriorate. Moreover, many of the workers in these newly created informal jobs do not have access to the same rights as their formal sector peers. Importantly, reducing the current job quality gap will not only achieve equity objectives but, with the right policy mix, it can enhance competitiveness and future resilience to economic shocks.

In particular, policy-makers need to be aware of the long-term implications of initiatives designed to address short-term problems. Regulatory reform designed to promote job growth, for example, can lead to overall aggregate improvements, but can also affect job quality. The Republic of Korea's past experience in this regard offers some interesting insights. A number of labour law reforms were instituted in the wake of the 1997 Asian financial crisis with the aim of promoting job creation by making the labour market more flexible. In particular, laws regarding collective dismissals and the rights of workers who have been laid-off were relaxed significantly. Unfortunately, deregulation focused almost exclusively on temporary workers and this had significant repercussions for the way in which the labour market developed (box 4.2).

Box 4.1 Reconciling fiscal constraints with employment objectives

The Global Economic Linkages (GEL) model is a theoretical macroeconomic model of a closed economy designed by the IILS in order to analyse the impact of policy shocks on a range of economic variables. Figure 4.1 illustrates the impact on output of increased ALMP expenditures compared to the baseline.

Figure 4.1 Impact of increased expenditures of ALMP on output



Note: See the Appendix for details on the GEL model.

Source: IILS.

B. Supporting recovery through well-designed income policies

As the labour market continues to struggle, social and cash transfers can continue to assist those most in need. In addition, the provision of social protection is, along with the provision of economic opportunities and good governance, an important element in fulfilling human rights obligations, in turn helping to avoid social and economic unrest – an issue of particular

concern currently. In this respect, having programmes already in place is a key factor in ensuring that measures can start to work immediately, i.e. no new legislation has to be passed. The presence of automatic stabilizers also means that governments can direct additional support to programmes in order to help those most affected by the crisis. Countries such as Indonesia and the Republic of Korea successfully introduced programmes of this nature during previous crises that were central in addressing future vulnerabilities – a lesson for other countries (box 4.3).

Evidence also suggests that the employment multiplier is larger when measures are adopted quickly because the shorter time the labour market crisis lasts, the fewer unemployed workers move into the informal sector or become discouraged and leave the labour market. Social protection programmes, by putting cash into the hands of those most likely to spend it, can also help to shore up household consumption and have a positive impact on aggregate demand and employment creation. Along these lines, increasing minimum wages can also help to support incomes of vulnerable groups. While some employers remain concerned about the implications for labour costs and enterprise competitiveness in the context of depressed product demand, there is an increasing recognition that minimum wages serve as a social floor for wage adjustments and also as a buffer against wage deflation. At the same time, minimum wage increases can act as a fiscal stimulus, by boosting consumer spending. During the crisis, roughly half of the world's economies increased their minimum wage.

Box 4.2 Labour market duality in the Republic of Korea

Labour law reforms in the wake of the 1997 Asian financial crisis sought to attain a degree of flexibility in order to place Korea in a better position to respond to globalization pressures. These reforms regarding collective dismissals and the dispatched workers provided for significant relaxation of legislation. Within the year following the 1997 financial crisis, Korea's OECD overall EPL index level fell from 2.7 to 2.0. However, the deregulation focused almost exclusively on temporary forms of employment rather than regular employment, and thus non-standard forms of employment have grown in prominence (figure 4.2). Fragmented industrial relations following the 1997 Asian financial crisis have also affected labour market segmentation. Firm-based and regular employee-based unions are seemingly more oriented towards pursuing their own interests and are very often reluctant to organize non-regular workers as they would their own members or to represent their interests. As a result, non-regular workers are characterized as having lower wages, few prospects for advancement to permanent jobs and facing considerable risk in terms of employment security. Between the fourth quarter of 2008 and the first quarter of 2009, around 318 000 non-regular jobs were lost, but regular employment increased by 51 000 in the same period. Moreover, less than 40 per cent of non-regular workers have access to employment insurance compared to more than 66 per cent of regular workers.

Figure 4.2 Share of non-regular workers in the Republic of Korea (2001 and 2008)

Source: IILS.

Box 4.3 Introducing measures during times of crisis

Indonesia: During the 1997 Asian financial crisis, the Government introduced a series of social protection programmes to mitigate the social consequences of the crisis and support the most vulnerable, notably: (i) food security programme; (ii) scholarship and block grants for primary and secondary schools; (iii) health services; (iv) regional empowerment; and (v) cash transfers. These programmes, which were modified and expanded during the decade that followed, were central to the Government's response in assisting those affected by the 2008 crisis.

Republic of Korea: During the 1997 financial crisis the Government made significant modifications to the unemployment benefit system, including (i) expansion of coverage; (ii) relaxation of eligibility requirements; and (iii) introduction of the Special Extended Benefits System.

Source: IILS.

C. Demand-led initiatives

Given the need to stimulate employment growth and create quality jobs, it is pertinent that firms (particularly SMEs) are afforded the opportunity to grow in the current challenging investment climate. Unclogging credit markets and finding innovative ways to stimulate private investment are of paramount importance to such a strategy.

Even though governments took unprecedented steps to stabilize credit markets during the crisis, lending activity virtually came to a halt, making it difficult for viable firms to continue operations. The challenge was particularly acute for SMEs that rely heavily on credit to sustain operations. Although the financial market preference for liquidity has eased somewhat, lending conditions still remain tight. Thus, as global activity resumes, it will be crucial for firms – the engine of employment creation – to have adequate access to credit. Targeted credit to firms in some cases has proved to be fairly successful in maintaining business resilience during the crisis (box 4.4). However, while credit is important, some countries also paid particular attention to specific segments of industry and resources were targeted to benefit those sectors that were considered most vital to the economy and employment creation. In other cases, countries sought to increase business competitiveness by helping firms through tax cuts and subsidies.

Box 4.4 Ensuring that viable enterprises are able to take advantage of new opportunities

Promoting entrepreneurship: Many would-be entrepreneurs lack the necessary skills, information and finance to start a business. Greater emphasis could be given to supporting the development of new businesses by facilitating their access to information and courses on starting a business, human resources, financing, marketing and innovation.

Ensuring continued access to credit: A number of countries implemented credit measures targeted at SMEs. Nevertheless, many of those measures have expired and lending standards remain rather tight, and so firms – especially SMEs – continue to face difficulties in accessing finance. In other cases, the costs of borrowing are exorbitant. Governments therefore need to seek more permanent solutions to strengthen the ability of micro-, small and medium-sized enterprises (MSMEs) to secure financial support. One potential solution is to give incentives for firms to list publicly and thus enable them to access equity financing.

Helping firms leverage future growth: In order for micro- and small firms to develop into larger enterprises, they need to be given access to growth opportunities.

D. Address crisis origins

1. Income inequalities

One of the principal underlying causes of the crisis – income inequality – has not been adequately addressed. Moreover, efforts to address global imbalances have focused – wrongly – on currency adjustments rather than on a more equal sharing of the benefits of growth. A number of areas which could serve to reduce income inequality – for example, focusing on the quality of employment and developing strong and integrated social protection measures – are highlighted in this chapter. There must also be a renewed emphasis on ensuring that wages grow in line with productivity and that tax policies become more progressive. A more difficult question is how to ensure that such policies are implemented. Effective social dialogue is critical in this regard but clearly much more needs to be done. Indeed, for many of these policies to be successful there must be coordination at the international level. For example, wage policies and developments require a certain level of coordination, otherwise wages could be leveraged for competitive purposes – resulting in a race to the bottom.

2. Financial market regulation

Proper regulation of financial markets remains a second challenge that still needs to be fully addressed. Good practices during the crisis have inspired certain reform proposals, such as speed limits for credit expansion in Canada, pro-cyclical bank reserve requirements in Spain and the establishment of large public banks in Brazil and Indonesia. The debate surrounding different reform aspects is by no means over yet, but it has started to bear fruit. The current US administration has put forward some of the most substantial reforms to regulation that the financial industry has seen since the Great Depression. In Europe, similarly bold changes are on the verge of being implemented. And, at the international level, the multilateral framework has been strengthened to safeguard the international payment system. Other reforms are gradually being implemented, such as the new Basel III requirements to regulate bank behaviour during lending booms.

Despite these encouraging first steps towards a more stable global financial architecture, several problems persist and hamper a more encompassing shift in financial regulation. Securing ailing banks has caused public debt to grow, undermining the states' capacity to support the real economy. The ensuing sovereign debt crisis observed in many European countries not only pushed policy-makers into premature consolidation efforts but also weakened their position vis-à-vis international financial investors to press for more ambitious financial sector reforms. Moreover, in the absence of proper regulation of international capital flows, the massive liquidity that central banks in advanced countries have pumped into the market has caused massive capital inflows into emerging economies, which could lead to excessive credit growth, destabilizing the real economy and labour markets of these countries. Finally, most reform proposals remain confined to the banking sector. However, as long as non-deposit-taking financial institutions, such as hedge funds or investment banks,

are not subject to more stringent regulation of their activities, new risks may (re-)emerge quickly, as earlier examples of large, underwater funds during the 1990s have demonstrated.

E. Policy integration and coordination

1. Mutually reinforcing policy design

Macroeconomic policies on their own are not sufficient to achieve employment growth or a sustainable recovery. Importantly, economic, employment and social policies can work together, and considering them as package will lead to better overall outcomes. This is true of employment-centred projects, which create jobs while at the same time improving long-term productivity prospects. Similarly, social protection measures help to stimulate and maintain incomes among the most vulnerable but, if carefully designed, can have large multiplier effects that go beyond the targeted group, stimulating jobs and incomes at the aggregate level.

Increasingly, the mutually supportive nature of economic, social and labour policies is recognized. In many countries, policies are more integrated than ever before. Such an approach was taken in Argentina during the currency crisis of 2001–02, where the Government switched from a pro-cyclical macroeconomic approach to an integrated strategy combining different elements targeting specific areas, including ALMP measures (see box 4.5). Moving forward, however, the question of how to adjust the existing policy framework to reflect this new reality is most relevant. Equally enduring and perhaps more intractable is the question of which strategies are best for financing such measures in light of fiscal constraints.

Box 4.5 Policy integration: The case of Argentina

Argentina's response to the 2001–02 crisis can be characterized as two distinct phases. The first, corresponding to the recession period running from 1998 to 2001, followed the fiscal austerity and deregulation line taken earlier in the 1990s, which was unsuccessful in stabilizing macroeconomic conditions and fostering output growth. Only fiscal and monetary initiatives were used at this time, with minimal recourse to labour and social policies. The second phase, starting at the end of 2001, involved a more comprehensive approach, comprising monetary and financial policies, an important and varied set of fiscal measures and labour market and social protection measures aimed at stimulating private consumption.

In putting labour policies at the centre of its post-2001 efforts, the Government had three main goals: the strengthening of employment numbers, notably through the Unemployed Heads of Household Plan (Plan Jefes y Jefas de Hogar Desocupados), which was launched in May 2002; the reduction of income inequalities, which included the reinstatement of the minimum living and adjustable wage (salario mínimo, vital y móvil – SMVM) that had been abandoned during the 1990s; and the reinforcement of labour institutions, notably through the passage of Law No. 25.877 in 2004, which made the promotion of decent work a priority objective.

While a number of factors contributed to Argentina's recovery post-2002, including the shift in relative prices caused by the peso devaluation and a favourable economic environment which ushered in higher export prices and declining foreign interest rates, there is broad agreement that the carefully targeted social and employment measures – combined with effect macroeconomic policies – were important factors behind the sustainable recovery.

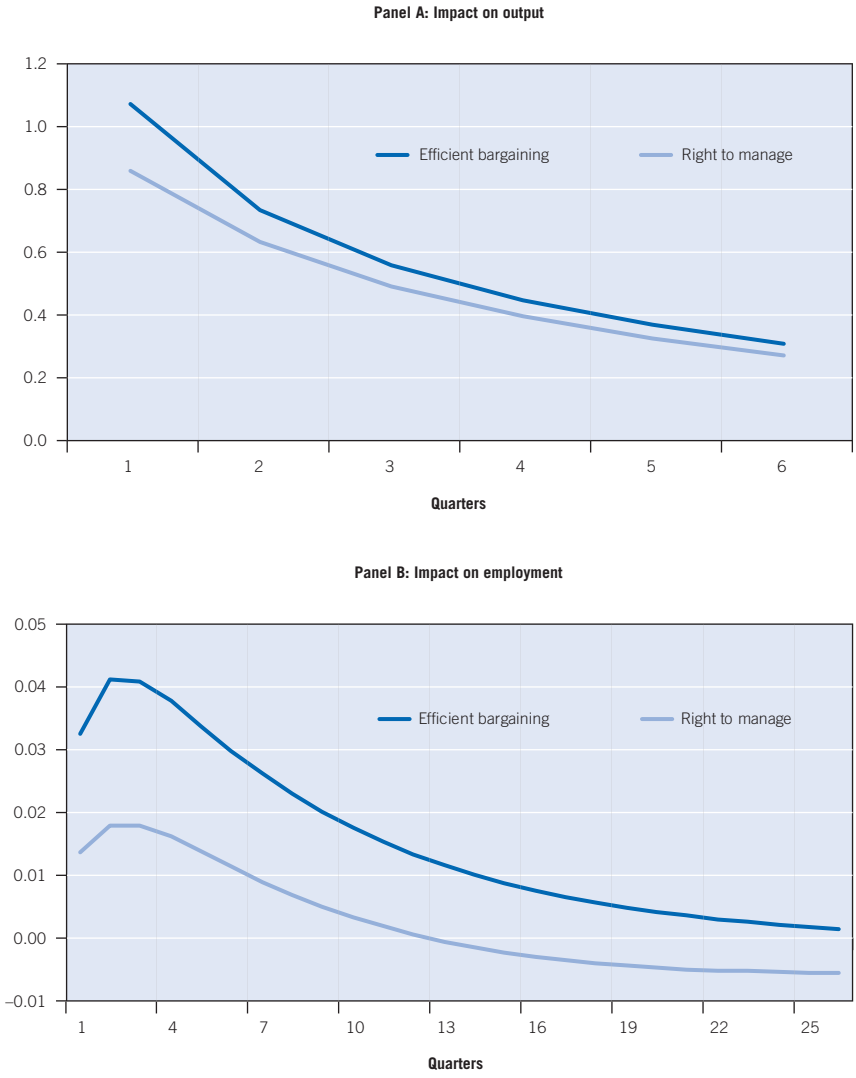
The lessons learned in Argentina are all the more relevant given the current drift towards fiscal consolidation. Pressures to cut spending, in particular on pro-employment programmes, are likely to delay the recovery and exacerbate the challenges faced by policy-makers seeking to build a sustainable and inclusive recovery.

Source: IILS.

2. Importance of social dialogue

In a number of countries, effective social dialogue has been instrumental in achieving better outcomes during the current crisis. Moreover, as evidenced by the GEL model, collective bargaining can play a vital role in minimizing a fall in output and employment. In particular, in the presence of efficient bargaining – where firms and workers bargain over both wages and hours worked – fiscal multipliers for both output and employment are larger than for right-to-manage bargaining (firms and workers bargain over wages only).

Figure 4.3 **Collective bargaining and its impact on output and employment**



Note: See the Appendix for details on the GEL model.

Source: IILS.

3. International coordination

Preliminary evidence suggests that the internationally coordinated response to the financial and economic crisis proved important in limiting the damage in terms of loss in output and employment. Empirical analysis shows that a lack of international coordination diminishes the overall effect of the stimulus measures. Furthermore, given the international linkages, it makes each individual country reluctant to move faster than its trading partners. Even though there was a widespread fear of policy leakages to other countries in late 2008 and early 2009, most industrialized countries coordinated their efforts (more in terms of monetary policies than fiscal policies) to tackle the crisis.

Rising sovereign debt problems in some economies, coupled with persistently high unemployment rates in others, have led to an equally disharmonized round of measures whose contradictory effects could cancel each other out. For example, wage policies and developments require a certain level of coordination across sectors and countries, otherwise wages could be leveraged for competitive purposes – resulting in a race to the bottom.

Thus, a renewed spirit of international solidarity is needed to coordinate policy efforts and avoid beggar-thy-neighbour type policy scenarios. The G20 process is a welcome development and represents an opportunity to address many of these issues but it is not enough. Both the ILO and the European Commission must also take a strong lead in this regard if solutions are to be fair and equitable.

APPENDIX: GLOBAL ECONOMIC LINKAGES (GEL) MODEL

The GEL model is a macroeconomic model specifically designed to analyse the dynamic of employment and the determinants of unemployment. The GEL model is a dynamic stochastic equilibrium model with search and matching function on the labour market and nominal price rigidities. A specific aspect of the model is that workers and firms bargain over labour market variables. On the basis of the GEL model, three key elements are addressed: (i) the role of labour market segmentation in shaping the recovery; (ii) the effectiveness of certain active labour market policies compared to general government consumption; and (iii) the effect of the role of social dialogue on the efficacy of policy interventions.

1. Labour market segmentation and economic recovery

The GEL model considers three inputs to the production process: capital, standard and non-standard employment. This reflects the fact that, increasingly, the dichotomy between standard and non-standard employment is not sector-specific. Firms are using both standard and non-standard types of work within the same production plants. Moreover, making use of a search and matching framework, worker flows between different segments of the labour market (standard employment, non-standard employment and unemployment) are being analysed, rather than stocks of employment.

Segments of the labour market function according to different wage-finding mechanisms. The labour market segment for standard employment allows for firm-level wage bargaining. New jobs are being created when firms manage to fill open vacancies, a time-consuming activity that explains why unfilled vacancies and unemployed workers can coexist. Alternatively, the unemployed can switch to non-standard jobs where wages are determined competitively, accounting for the quasi absence of regulation on this segment. However, the transition between the two labour market segments is costly in terms of time and resources. The relative size of the two segments is driven by two mechanisms. First, the relative wage affects labour demand by firms. Second, workers compare advantages associated with standard jobs, unemployment and non-standard jobs. In equilibrium, the value of being unemployed in the primary labour market is equal to non-standard wages plus switching costs. Labour market segmentation is sometimes used to study the question of informal employment rather than non-standard employment, as in Bacchetta et al. (2009) for instance. It seems, however, that informality refers to activities with a strong sectoral dimension, such as agriculture, or to employment status such as self-employment, which are different in nature from salaried jobs.

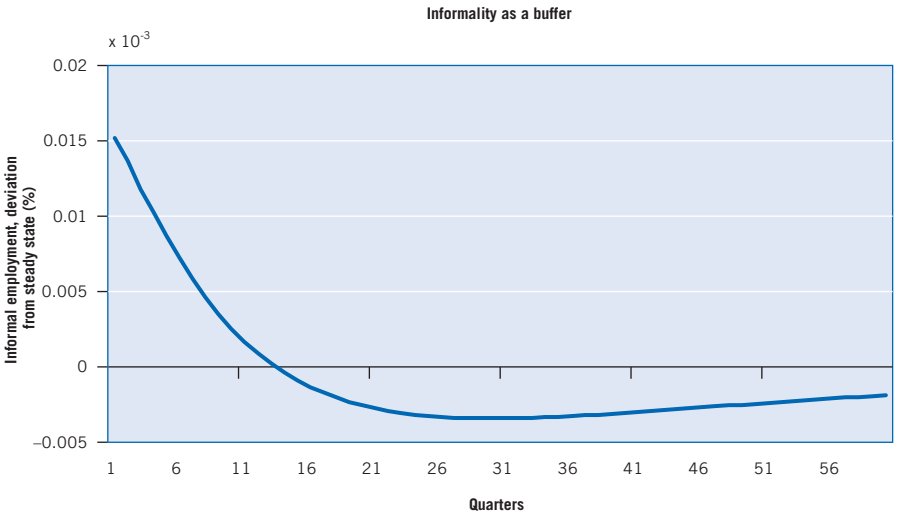
To understand the quantitative implications of the GEL model for the role of non-standard employment in transmitting economic and policy shocks, the model has been calibrated to match real-world economies with economically meaningful steady states. In this calibration, the unemployment rate is set at around 10 per cent, while standard and non-standard employment account for 30 per cent and 60 per cent respectively. The consumption-to-output ratio is close to 75 per cent, which is consistent with empirical evidence. Finally, the wage share is set at 64 per cent, in line with the average wage share in OECD countries.

2. Results

In analysing the properties of the GEL model when non-standard employment is prevalent, we are particularly interested in the role that labour market segmentation plays in the volatility of macroeconomic aggregates and the

amplitude of output and employment following (adverse) shocks. In addition, we are aiming at an understanding of the role played by changes in the cost of transition between different labour market segments. In general, such switching costs affect the ability of workers to shift between the different segments of the labour markets. In the long run, the value of a non-standard job therefore equals the utility of being unemployed less the transition costs. Hence, increasing those costs prevents more workers from switching to the formal segment, thereby reducing non-standard wages and generating an increase in non-standard labour demand of firms. On the other hand, lowering the barrier between the two segments of the labour market decreases the relative size of non-standard employment. Consequently, when transition costs are high, output is lower due to the existence of the wage gap between the two labour market segments.

Figure A.1 **Reaction of the share of non-standard work with respect to a negative productivity shock**

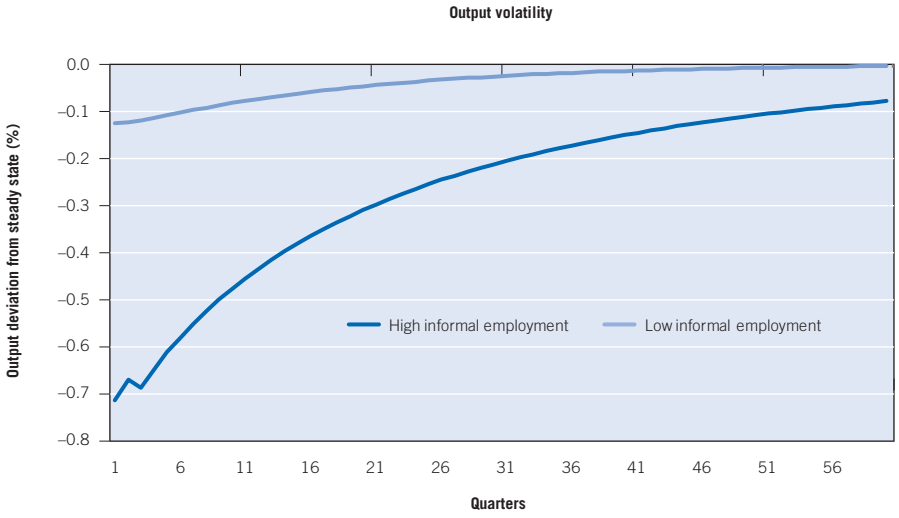


Note: The graph displays the reaction of the share of non-standard work in the model economy following a negative productivity shock. The dynamics are displayed over 60 quarters following the impact of the shock.

When shocking the GEL model with an adverse productivity shock, non-standard employment can be shown to be counter-cyclical, in line with the view of non-standard employment as a buffer (see figure A.1). Increases in the interest rate and standard wages are slower than increases in corresponding marginal productivities due to capital adjustment costs and search costs, which foster an increase in the demand for both inputs.

More generally, the main macroeconomic aggregates (consumption, investment and output) react in a pro-cyclical way to such an adverse productivity shock, in line with the prediction of a search model with a single labour market. When the labour market is segmented, however, the amplitude of the shock responses is much larger, reflecting the existence of non-standard work and the transition of some of the unemployment into non-standard forms of work (see figure A.2). As firms start to substitute non-st andard work for standard employment at the onset of the crisis (i.e. at the impact of the adverse productivity shock), output decelerates even further due to the lower productivity levels of

Figure A.2 Comparison of output reaction to an adverse productivity shock



Note: The graph compares the dynamic reaction of output with respect to a productivity shock over a period of 60 quarters between a baseline search model and the GEL model with labour market segmentation.

such informal employees. This will magnify the effect of the initial shock. In addition to the magnifying effect, non-standard employment generates a persistence effect. The GDP in economies with a large share of non-standard employment returns to its pre-crisis level at a much slower pace than otherwise. In figure A.3, the search model with a single labour market returns to equilibrium after 60 periods, while the model with labour market segmentation is still in recession at that time.

The existence of non-standard employment and the presence of labour market segmentation, therefore, increase substantially the volatility of output and employment when compared with the business cycle properties of more standard forms of macroeconomic models (see table A.1). Specifically, the table assesses the performances of two variants of our segmented labour market model against those of a Real Business Cycle (RBC) model (with a fully flexible labour market) and a search model. Two different sets of parameters are considered for the GEL model with segmented labour markets. The first set of parameters corresponds to the parameters discussed in the calibration section above. The steady state level of informal employment is calibrated by adjusting the switching costs between the two labour markets. Switching costs are set to 10, while the parameter for the elasticity of capital in the production function is equal to 0.26. The non-standard sector accounts for 57 per cent of the active population, while the unemployment rate is 13 per cent. The consumption to output ratio also increases to 73 per cent. In the second set of parameters, the steady state level of non-standard employment is calibrated by increasing capi-tal elasticity, while reducing transition costs close to zero. The non-standard sector now accounts for 50 per cent of the active population, while unemployment is smaller at 5 per cent.

These four model variants are being compared on the basis of three different volatility measures: the absolute standard deviation of the relevant macroeconomic aggregate (column 1: $\sigma(x)$); the volatility of each component relative to output volatility (column 2: $\sigma(x)/\sigma(y)$); and the correlation between each component and output (column 3: Corr(x,y)).

Table A.1 Cycle properties: Search costs with different level of non-standard employment

	RBC			Baseline search model			Non-standard employment – high switching costs			Non-standard employment – no switching costs		
Output volatility	$\sigma(y) = 0.5$			$\sigma(y) = 0.41$			$\sigma(y) = 0.21$			$\sigma(y) = 2.59$		
Type of volatility measure	$\sigma(x)$	$\sigma(x)/\sigma(y)$	Corr(x,y)	$\sigma(x)$	$\sigma(x)/\sigma(y)$	Corr(x,y)	$\sigma(x)$	$\sigma(x)/\sigma(y)$	Corr(x,y)	$\sigma(x)$	$\sigma(x)/\sigma(y)$	Corr(x,y)
Consumption	0.32	0.63	0.96	0.22	0.55	0.96	0.13	0.58	0.96	1.11	0.43	0.92
Investment	0.21	0.43	0.91	0.16	0.38	0.92	0.08	0.39	0.91	1.58	0.61	0.96
Standard employment	0.03	0.06	0.71	0.05	0.13	0.97	0.05	0.24	0.96	0.03	0.01	0.56
Unemployment	–	–	–	0.05	0.13	-0.97	0.01	0.07	-0.01	0.02	0.01	-0.40
Non-standard employment	–	–	–	–	–	–	0.05	0.23	-0.99	0.04	0.01	-0.34
Standard wages	0.35	0.70	0.99	0.22	0.54	0.99	0.13	0.62	0.96	1.10	0.43	0.97
Non-standard wages	–	–	–	–	–	–	0.09	0.44	0.99	1.15	0.45	0.98

Note: The table compares different volatility measures of four model variants: an RBC model with fully flexible labour markets, a search model with unemployment arising from matching frictions and two variants of the GEL model with labour market segmentation. Volatility measures used are the absolute standard deviation ($\sigma(x)$), the standard deviation relative to output volatility ($\sigma(x)/\sigma(y)$) and the correlation between individual components and output (Corr(x,y)).

The RBC and the search models have conventional properties. In particular, RBC models are unable to account for the observed persistence in employment (normalized standard deviation is close to zero) as the macroeconomic adjustment falls completely on wages. The novelty of the search and matching function is that search costs reduce the volatility of wages and increase that of employment ($\sigma(x)/\sigma(y) = 0.13$).

When labour market segmentation is present with high transition costs between the standard and the non-standard segment, output volatility drops to 0.21, which is twice as low as that of either the RBC or the search model. This result is consistent with Conesa et al. (2002), who show that the volatility of economies with non-standard labour is related to the transition of population between the two labour markets. In our model, large transition costs reduce the population-switching effect. The presence of both search and switching costs greatly increase the relative volatility of employment to 0.24 compared to only 0.13 in the search model with single labour market. The absolute volatility of wages (0.13 and 0.09) is similar to the volatility of the search model with single labour market. The normalized volatility of wages is, however, much

larger in the model with dual labour markets. This result stands in contrast to the conclusion of Batini et al. (2009), who argue that the non-standard labour market increases the overall flexibility of the economy.

When transition costs are low but the capital elasticity is high, output volatility increases substantially ($\sigma(y) = 2.59$) and is now more than five times larger than that generated by the RBC and search models. This result is consistent with the previous simulations, which show that the transition of the population between the two sectors of the economy amplifies the business cycle fluctuations. Moreover, the combination of a large non-standard sector with small transition costs reduces the impact of search costs on the persistence of employment. An economy with free transition of households between the two labour markets is similar to an economy with a single competitive labour market. Most of the adjustment falls on wages ($\sigma(x)/\sigma(y) =$ is 0.43 and 0.45 for standard and non-standard wages respectively), while employment persistence falls to zero. These results are in line with the conclusions of Batini et al. (2009), who argue that the non-standard sector increases the overall flexibility of both labour markets.

3. Active labour market policies

What can policy-makers do to soften the impact of a shock? And what do macroeconomic models tell us about the effectiveness of these policies? This section discusses different policy options for intervention and analyses the relative merits of active labour market policies through the lens of the GEL model. Indeed, government spending is implemented through many other channels, in contrast to what most standard models in this area assume. Some of these public interventions have a more direct bearing on economic activity than others. One of the channels that we are exploring in the following section concerns the effectiveness with which matching takes place on the labour market. Indeed, most active labour market programmes contain, as part of their components, instruments to promote search activities of the unemployed and to improve information exchange regarding available workers and job vacancies.

To implement such forms of active labour market policies, we start with a search and matching model following Ravenna and Walsh (2008) to which a government sector is added. In this basic framework, the transmission channel between fiscal policy and the real economy is similar to the transmission channel under Ricardian equivalence: an increase in government consumption reduces households' consumption and private investment. It also depresses the labour market, as a higher interest rate tends to reduce the surplus of an additional match and the incentive of firms to hire.

In this set-up, active labour market policies relate to the contribution of a policy intervention in easing the matching process. For that purpose, the traditional matching function is extended to incorporate labour market spending. The (Cobb-Douglas) matching function is now determined by three elements: unemployment, vacancies and active labour market spending. The main result is that labour market spending improves employment, leading to an increase in output. The transmission channel at work here stands in contrast to that underlined in the previous model. A first transmission mechanism is a supply-side effect. Active labour market policies increase the production of goods by improving the level of employment. There are therefore two supply-side effects at work at the same time, a negative effect linked to the crowding out of private resources and a positive effect linked to more efficient labour markets. In addition, variations in aggregate affect production through nominal price stickiness. This leads to the following results:

- First, when prices are fully flexible, the model is dominated by the supply side and higher government consumption crowds out private spending. Investment and consumption decrease and overbalance the impact of higher public spending on aggregate demand. The output multiplier is negative and equal to -0.08 after four semesters.

- Second, when public spending takes the form of an active labour market policy intervention, the positive impact of government spending on the labour market boosts firms' production, which generates a positive fiscal multiplier. Active labour market policies in this framework improve the matching between unemployed and vacancies. The output multiplier is 0.31

on impact and 0.43 after one year, while the employment multiplier is 0.11 on impact and 0.18 after a year.

- Third, there is an optimal level of labour market spending. For certain values of the labour market spending to GDP ratio, the positive supply-side effect is so strong that it crowds in private spending and leads to an increase in consumption and investment. In such a case, the multiplier is much larger and reaches 0.56 on impact for output (0.83 after one year) and 0.2 on impact for employment (0.31 after one year).

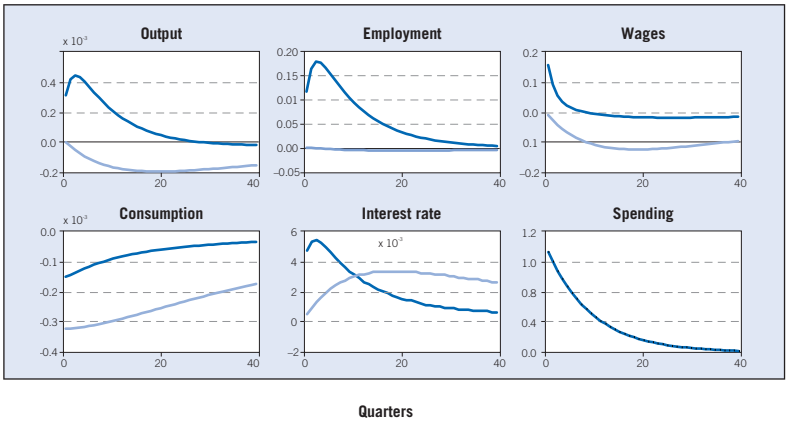
- Finally, in the presence of price rigidities, the interaction between the labour market effects and the aggregate demand effects produces a fiscal multiplier close to 2 on impact. In an extension of the model, prices set by firms are characterized by rigidities generating quantity adjustment in the goods market. Following an increase in public spending, firms facing higher aggregate demand are not able to charge higher prices and therefore increase production. There is an aggregate demand effect associated with fiscal policy.

4. Results

Figure A.3 displays the dynamic of the economy following a positive shock on labour market policy spending (dark blue line). For the sake of comparison, dynamics generated by Ricardian models are also represented in the same figure (pale blue line). An increase in government consumption produces the usual crowding out of private consumption and output in line with the properties of a Ricardian economy.

In contrast, an increase in labour market spending produces a positive multiplier effect and an increase in employment. The output multiplier is positive but smaller than one: on impact it reaches 0.31 and 0.43 after one year, in contrast to the Ricardian case, which exhibits a negative output multiplier of 0.08 after one year. The employment multiplier is positive too: 0.11 on impact and 0.18 after four semesters. Positive effects on employment and output are related to the improved efficiency of the labour markets induced by labour

Figure A.3 Labour market spending vs. Ricardian spending

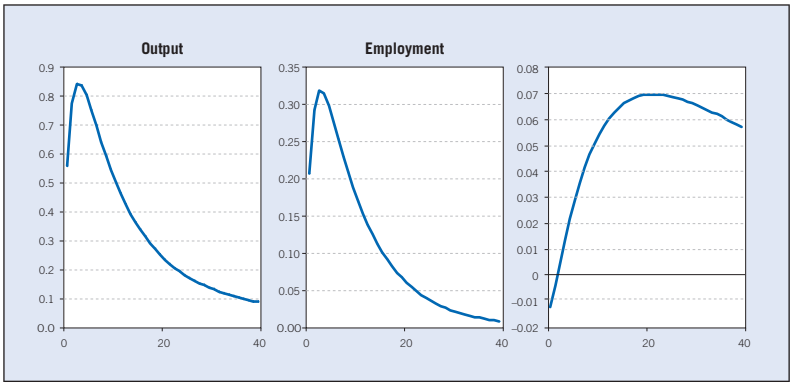


Note: The graph displays the reaction of the main macroeconomic aggregates following a positive shock on labour market spending (dark blue line). The pale blue line illustrates the baseline results produced by a Ricardian model.

market spending. Labour market spending increases the number of matches and the overall level of employment. This effect more than offset the crowding out of consumption and investment. This result is similar to the baseline result of Monacelli et al. (2010) except that the rise in employment is not linked to the specificities of the wage bargaining. In Monacelli et al. (2010), the positive multiplier effect is related to the crowding out of consumption, which reduces the disutility of work activities and leads workers to accept a lower wage.

Figure A.4 displays the dynamic of the main macroeconomic variables following a positive shock on labour market spending when the steady state level of active labour market spending to GDP is decreased from 1.2 per cent to 0.7 per cent, which corresponds to the value of this ratio for the United States. The fiscal multiplier is now as large as 0.56 on impact and 0.83 after one year. The employment multiplier is larger too, and reaches 0.2 on impact and 0.31 after one year. Furthermore, consumption is now responding positively to public spending. Despite a negative reaction on impact, consumption turns positive after three semesters. It seems that the increase in output generated by higher employment crowds in private consumption. The positive impact of public spending on employment boosts output through a supply-side effect.

Figure A.4 Crowding in of private consumption



Note: The graph displays the reaction of the main macroeconomic aggregates following a positive shock on labour market spending.

The positive impact on consumption that follows overbalances the negative impact of higher public spending on private consumption. There is therefore an optimal level of active labour market spending to GDP, for which the fiscal multiplier is maximum. This feedback channel stands in contrast to existing models, which produce an increase in consumption either by assuming non-separability in the utility function between labour supply and consumption or by relying on a wealth effect as in the perpetual youth model.

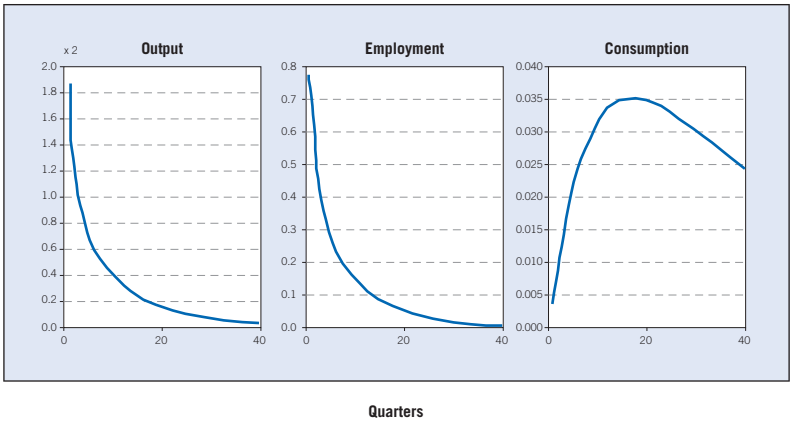
Figure A.5 examines the case when the positive supply-side effect related to active labour market policies is combined with an aggregate demand effect resulting from nominal price rigidities. These rigidities are central when discussing fiscal policy to the extent that they generate quantity adjustments. Following fiscal policy, firms respond to the surge in aggregate demand by raising prices. In the presence of price rigidities, firms must also increase output to meet excess demand. Ravn et al. (2006), for instance, use price stickiness to produce a positive fiscal multiplier. Adding price rigidities should trigger an increase in private consumption, given that firms increase labour inputs and that the real wage increases. Nominal price rigidities also limit the crowding out of private consumption. Finally, nominal price rigidities impact on the incentive

of firms to hire. The markup now enters the marginal productivity of labour in the surplus equation from an additional match. The fall in the markup raises the marginal productivity of labour and contributes to the improvement of the labour market alongside labour market policies. The resulting effect should be a larger multiplier effect. The main result is that the fiscal multiplier is now much larger and almost equal to 2 on impact. Accordingly, the employment multiplier reaches 0.8. Consumption increases and is hump-shaped.

5. Social dialogue and policy effectiveness

During the crisis, several governments have strengthened firms' incentives for labour hoarding by reducing the average number of hours of work instead of cutting jobs. The intention is to maintain jobs and labour income, while retaining the skills within firms and speeding up the economic recovery. This extension of the model tries to understand what factors drive the intensive and the extensive margin of labour adjustment. In particular, the objective is to assess the impact of different types of bargaining institutions on unemployment following an increase in fiscal spending and aggregate demand.

Figure A.5 **Active labour market policy and aggregate demand effect**



There are three main transmission channels involved here. First, an increase in government spending generates an aggregate demand effect in the presence of nominal price stickiness. Only a small share of firms can increase prices in the face of higher demand for goods. Other firms increase production. It follows that firms increase their demand for labour inputs too. Second, the type of bargaining on hours and wages affects the fiscal multiplier. The extent to which firms increase hours worked or jobs determines the ability of fiscal policy to fight unemployment. Most studies that rely on a matching framework assume a standard Nash bargaining structure where firms and workers negotiate over wages and hours of work per employed individual. In the following, we want to compare this set-up with one where firms and workers negotiate over wages while firms choose unilaterally the number of hours that each employed worker should work. Third, the negative wealth effect linked with the Ricardian equivalence is reduced by adopting a particular form of utility function. Recent work on fiscal multipliers has demonstrated the importance of the leisure-consumption trade-off in explaining the effectiveness of public stimulus packages. In particular, the work summarized above has put forward the proposition that fiscal multipliers are particularly high when the inter-temporal elasticity of consumption is low.

The model set-up follows Monacelli and Perotti (2008) in considering the utility function introduced by Greenwood, Hercowitz and Huffman (1988) (GHH) into the business cycle literature. Using GHH preferences implies that the negative wealth effect on labour supply that is induced by higher government spending is shut down. Labour market dynamics are characterized by a search and matching process in the wholesale sector, whereas wages are determined through mutual bargaining. Jobs are only created in the wholesale sector which is perfectly competitive. The monopolistically competitive retail sector transforms wholesale goods into a homogenous final good to be sold to the consumer. Price rigidities in the retail sector in the form of Calvo-type price stickiness create inflation dynamics described by the New Keynesian Phillips curve.

Government spending is fully financed through higher taxation (no deficit spending) and supposed to follow an autonomous spending path. In contrast,

monetary policy is implemented through the gross nominal short-term interest rate that follows a Taylor-rule, i.e. depends on the inflation and output gap.

Key to the dynamics of the model is the bargaining process over wage and hours worked per employed worker. We differentiate between two widely recognized bargaining forms: right-to-manage bargaining and efficient bargaining. In the first form, firms and workers negotiate over the appropriate wage and leave the determination of hours worked per employed worker to the firms. In the second form, workers and firms negotiate over both average hours worked per employed worker and average pay to maximize the joint surplus of any individual match. The total hours worked will then be determined through the number of open vacancies and the bargaining outcome on the hours of work per employed individual. The difference between the two forms resides, therefore, in the fact that only efficient bargaining guarantees maximization of the joint match surplus and hence a maximum of new job vacancies being opened at each period of time.

6. Results

On the basis of these model assumptions, efficient bargaining can be shown to significantly improve the pass-through of government spending on employment creation and output (see figure 4.3). As a matter of fact, the fiscal multiplier is larger under efficient bargaining than in the case where firms retain the right to manage the average number of hours worked. On the labour market, employment reacts much more vigorously under an efficient bargaining process than otherwise as consistently more vacancies are being created as long as the shock lasts. In addition, average hours worked per employed individual increase more strongly, at least in the initial periods after the shock impact, raising total hours worked more than in the right-to-manage situation. As a consequence, both output and consumption increase, in line with the observed empirical stylized facts alluded to above. The model predicts that the changes in labour input (total hours worked) implied by the government spending shock are mainly adjusted along the intensive margin.

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