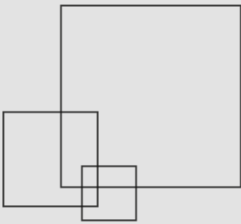




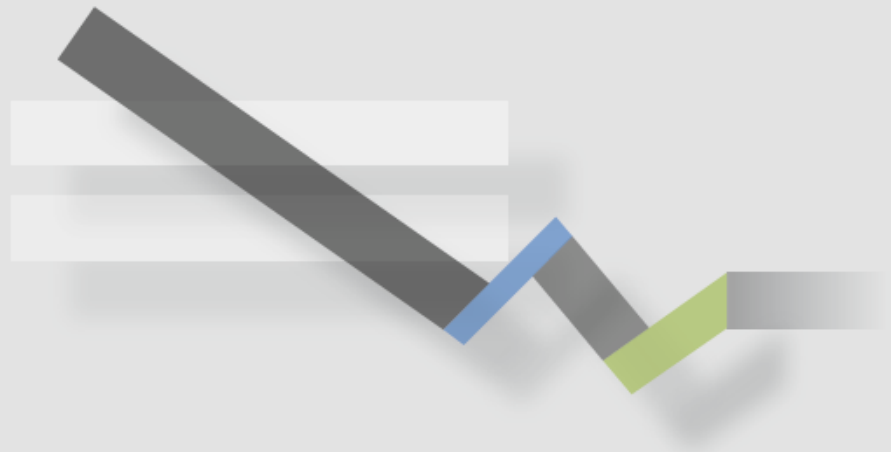
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World of Work Report 2011



Making markets work for jobs

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INTERNATIONAL LABOUR ORGANIZATION
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Editorial

Raymond Torres

Director

International Institute for Labour Studies

The economic slowdown may entail a double-dip in employment ...

The next few months will be crucial for avoiding a dramatic downturn in employment and a further significant aggravation of social unrest. The world economy, which had started to recover from the global crisis, has entered a new phase of economic weakening. Economic growth in major advanced economies has come to a halt and some countries have re-entered recession, notably in Europe. Growth has also slowed down in large emerging and developing countries.

Based on past experience, it will take around six months for the ongoing economic weakening to impact labour markets. Indeed, in the immediate aftermath of the global crisis it was possible to delay or attenuate job losses to a certain extent, but this time the slowdown may have a much quicker and stronger impact on employment. After the collapse of Lehman Brothers in 2008, many viable enterprises expected a temporary slowdown in activity and so were inclined to retain workers. Now, three years into the crisis, the business environment has become more uncertain and the economic outlook continues to deteriorate. Job retention may therefore be less widespread.

Moreover, government job- and income-support programmes, which proved so successful in cushioning job losses and supporting job retention practices in firms at the start of the global crisis, may be scaled down as part of the fiscal austerity measures adopted in a growing number of countries. Lastly, and more fundamentally, while in 2008-2009 there was an attempt to coordinate policies, especially among G20 countries, there is evidence that countries are now acting in isolation. This is leading to more restrictive policies driven by competitiveness considerations, and job retention measures could fall victim to it.

The latest indicators suggest that the employment slowdown has already started to materialize (Chapter 1). This is the case in nearly two-thirds of advanced economies and half of the emerging and developing economies for which recent data are available. Meanwhile, young people continue to enter the labour market. As a result, approximately 80 million net new jobs will be needed over the next

two years to restore pre-crisis employment rates (27 million in advanced economies and the remainder in emerging and developing countries). However, in light of the recent economic slowdown, the world economy is likely to create only about half of those much-needed jobs. And it is estimated that employment in advanced economies will not return to its pre-crisis levels until 2016, i.e. one year later than projected in the World of Work Report 2010.

... exacerbating inequalities and social discontent ...

As the recovery derails, social discontent is now becoming more widespread, according to a study carried out for the purposes of this Report (see special focus on social unrest in Chapter 1). In 40 per cent of the 119 countries for which estimates could be performed, the risk of social unrest has increased significantly since 2010. Similarly, 58 per cent of countries show an increase in the percentage of people who report a worsening of standards of living. And confidence in the ability of national governments to address the situation has weakened in half the countries.

The Report shows that the trends in social discontent are associated with both the employment developments and perceptions that the burden of the crisis is shared unevenly. Social discontent has increased in advanced economies, Middle-East and North Africa and, albeit to a much lesser extent, Asia. By contrast, it may have stabilized in Sub-Saharan Africa, and it has receded in Latin America.

... and further delaying economic recovery.

The worsening employment and social outlook, in turn, is affecting economic growth. In advanced economies, household consumption – a key engine of growth – is subdued as workers become more pessimistic about their employment and wage prospects. Indicators for the United States and several European countries suggest that workers expect stagnating or even falling wages. The uncertain demand outlook, combined with continued weaknesses in the financial system of advanced economies, is depressing investment in all countries, including in emerging and developing economies which rely primarily on exports for growth and job creation.

In short, there is a vicious cycle of a weaker economy affecting jobs and society, in turn depressing real investment and consumption, thus the economy and so on.

This vicious circle can be broken by making markets work for jobs – not the other way around

Recent trends reflect the fact that not enough attention has been paid to jobs as a key driver of recovery. Countries have increasingly focused on appeasing financial markets. In particular, in advanced economies, the debate has often centred on fiscal austerity and how to help banks –without necessarily reforming the bank practices that led to the crisis, or providing a vision for how the real economy will recover. In some cases, this has been accompanied by measures that have been perceived as a threat to social protection and workers' rights. This will not boost growth and jobs.

Meanwhile, regulation of the financial system – the epicentre of the global crisis – remains inadequate. In advanced economies, the financial sector does not perform its normal intermediary role of providing credit to the real economy. And

emerging economies have been affected by the massive inflows of volatile capital (Chapter 2).

In practice, this means that employment is regarded as second order vis-à-vis financial goals. Strikingly, while most countries now have fiscal consolidation plans, only one major advanced economy – the United States – has announced a national jobs plan. Elsewhere, employment policy is often examined with a fiscal lens.

It is urgent to shift gears. The window of opportunity for leveraging job creation and income generation is closing, as labour market exclusion is beginning to take hold and social discontent grows.

This requires, first, ensuring a closer connection between wages and productivity, starting with surplus countries ...

It is time to reconsider “wage moderation” policies. Over the past two decades, the majority of countries have witnessed a decline in the share of income accruing to labour – meaning that real incomes of wage earners and self-employed workers have, on average, grown less than would have been justified by productivity gains. Nor has wage moderation translated into higher real investment: between 2000 and 2009 more than 83 per cent of countries experienced an increase in the share of profits in GDP, but those profits were used increasingly to pay dividends rather than invest (Chapter 2). And there is no clear evidence that wage moderation has boosted employment (Chapter 3).

In fact, wage moderation has contributed to exacerbating global imbalances which, along with financial system inefficiencies, have led to the crisis and its perpetuation. In advanced economies, stagnant wages created fertile ground for debt-led spending growth – which is clearly unsustainable. In some emerging and developing economies, wage moderation was an integral part of growth strategies based on exports to advanced economies – and this strategy too is unsustainable.

By ensuring a closer connection between wages and productivity, the global shortfall in demand would be addressed. In addition, such a balanced approach would make ease the pressures on budget-constrained governments to stimulate the economy. In many countries, profitability levels are such that allowing wages to grow in line with productivity would also support investment.

Obviously, the proposed policy would need to be adapted to country circumstances and can only be achieved through social dialogue, well-designed minimum wage instruments and collective bargaining, and renewed efforts to promote core labour standards. With this in mind, surplus economies like China, Germany, Japan and the Russian Federation have a strong competitive position, and therefore more space for such a policy than other countries. More balanced income developments in surplus countries would be in the interest of those countries while also supporting recovery in deficit countries, particularly those in the Euro-area which cannot rely on currency devaluation in order to recover lost competitiveness.

... second, supporting real investment notably through financial reform...

There will be no job recovery until credit to viable small firms is restored. In the EU, the net percentage of banks reporting a tightening of lending standards has remained positive throughout 2011, and when firms in the EU were asked about the most pressing problem they faced between September 2010 and February 2011, one-fifth of small firms reported lack of adequate access to finance. Targeted

support could take the form credit guarantees, the deployment of mediators to review credit requests denied to small firms and providing liquidity directly to banks to finance operations of small enterprises. Such schemes already exist in countries like Brazil and Germany.

In developing countries, there is significant scope for increasing investment in rural and agricultural areas (Chapter 4). This requires targeted public investment, but also curbing financial speculation on food commodities in order to reduce the volatility of food prices. Food prices were twice as volatile during the period 2006-2010 than during the preceding five years. As a result, any increase in agricultural income is perceived by producers – especially small ones – as temporary. Producers thus lack the stable horizon needed to invest the agricultural-income gains, perpetuating food shortages and wasting decent work opportunities.

... third, maintaining and in some cases strengthening pro-employment programmes funded from a broader tax base ...

No country can develop with ever rising public debts and deficits. However, efforts to reduce public debt and deficits have disproportionately and counterproductively focused on labour market and social programmes. Indeed, cuts in these areas need to be carefully assessed in terms of both direct and indirect effects. For instance, cutting income support programmes may in the short-run lead to cost savings, but this can also lead to poverty and lower consumption with long-lasting effects on growth potential and individual well-being.

A pro-employment approach that centres on cost-effective measures will be instrumental in avoiding a further deterioration in employment. Carefully designed pro-employment programmes support demand while promoting a faster return to pre-crisis labour market conditions. Early support in crisis times pays off through reduced risk of labour market exclusion, as well as productivity gains. The positive employment effects due to more vibrant labour market matching compensates for any negative effects resulting from private sector crowding out. Increasing active labour market spending by only half a per cent of GDP would increase employment by between 0.2 per cent and 1.2 per cent in the medium-term, depending on the country (Chapter 6). Though these estimates provide broad orders of magnitude only, they underline that, if well-designed, spending on pro-employment programmes is consistent with fiscal objectives in the medium term.

Moreover, pro-employment programmes are not expensive to the public purse. If need be, new resources can be found to support much-needed spending. In this regard, the Report notes that there is scope for broadening tax bases, notably on property and certain financial transactions (Chapter 5). Such measures would enhance economic efficiency and help share the burden of adjustment more equitably, thereby also contributing to appease social tensions. The heterogeneous nature of the recovery makes it necessary, however, to apply the approach in the light of country-specific circumstances.

... and putting jobs back on top of the global agenda.

The responsibility for making markets work for jobs rests primarily with national governments. They have at their disposal a rich panoply of measures inspired by the ILO Global Jobs Pact – ranging from job-friendly social protection programmes, to well-designed minimum wages and employment regulations and productive social dialogue- which can be quickly mobilized in combination with job-friendly

macroeconomic and financial settings. It is especially important to move quickly on this front in the Euro-area, where the signs of economic weakening are strongest.

There is also a critical role for international policy coordination. This task has become more difficult given the different cyclical positions of countries. However, the Report's findings suggest that a job recession in one region will, sooner or later, affect economic and social prospects in the other regions. Conversely, the interconnectedness of economies means that, if countries act in a coordinated way, any favourable effects on employment will be amplified. In this regard, the G20 has a special leadership role to play in keeping employment, along with fiscal and financial issues, high on the global policy agenda. Here too, time is of the essence.

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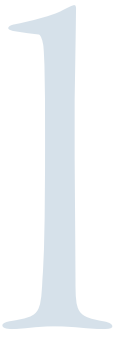
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Market turbulence, employment and social unrest: Trends and outlook¹



Main findings

- The global economic outlook has deteriorated significantly since 2010. The latest indicators suggest that employment growth has already begun to slow. This is the case in nearly two-thirds of advanced economies and half of the emerging and developing economies for which recent information exists. The Report shows that almost 80 million jobs need to be created over the next two years to reach pre-crisis employment rates. But the recent slowdown in economic activity suggests that the world economy is likely to only create half the number of jobs needed. As a result, on current trends, employment in advanced economies will not return to the pre-crisis situation before 2016, which is one year later than predicted in *World of Work Report 2010*.
- The slowdown in economic activity comes at a critical point for labour markets. Three years into the crisis, and despite some encouraging signs of recovery in 2010, many jobseekers are becoming demoralized and are deciding to leave the labour market altogether. In most regions, in particular in advanced economies and a number of Arab countries, it is increasingly difficult to obtain stable employment with decent career prospects – many new jobs are insecure and precarious, reflecting the uncertain economic prospects facing enterprises. The job situation among youth is especially problematic.
- According to new survey data presented in the Report, the inability to address the jobs crisis has led to rising social discontent. It is estimated that 40 per cent of the 119 countries with available information face the prospect of increased social unrest. The estimated risk of increased social unrest is especially high in advanced economies, the Middle East and North Africa and, to a lesser extent, Asia. By contrast the estimated risk of social unrest may have stabilized in

1. Excellent research assistance was provided by Elodie Dessors.

sub-Saharan Africa and has declined in Latin America. Moreover, in 50 out of 99 countries with available data, survey respondents indicate that their confidence in national governments is declining. Lack of good jobs is at the heart of these developments as the Report shows that these trends are strongly linked to the employment situation and perceptions that the burden of the crisis is shared unevenly.

- Further deterioration in labour market conditions and subsequent erosion of the social climate threatens to derail the recovery. Such a scenario can be avoided if job creation is put at the top of the policy agenda – and urgently. Some countries are showing the way and have been rewarded with good employment outcomes. Chapters 2 to 6 are dedicated to showing how employment and income measures can be drivers of the recovery process.

Introduction

By the end of 2009 the global economy – with considerable variation in both pace and breadth – started to recover from the global financial and economic crisis. At that time, world GDP growth was expected to be near 5 per cent for 2012. Yet, throughout 2009 and 2010, quality employment growth remained weak, especially in advanced economies.² Indeed, temporary jobs dominated employment growth in many advanced economies in 2010 and informal employment rose in a number of emerging economies (ILO, 2010a).

However, the global crisis has entered yet another new phase and growth projections have been downgraded significantly. Already by late 2010, GDP growth had begun to weaken, with the slowdown being particularly acute in advanced economies, adversely affecting demand in other regions. This poses severe downside risks to an already fragile employment situation – exacerbated by rising food prices (see Chapter 4).

The purpose of this chapter is to examine in more detail recent labour market and social developments and to assess the risk of a double dip in employment. In particular, section A documents recent macroeconomic and employment trends with a view to assessing the extent to which labour market conditions have already deteriorated. Given that employment changes often occur with some delay to changes in GDP, section B estimates the impact of the recent downward revisions on growth on the employment outlook. Section C assesses the overall social climate and examines the role of jobs, or lack thereof, in social unrest. The final section (section D) introduces the rest of the Report, highlighting key areas that must be addressed to avert a double dip in employment and further social tensions.

2. “Advanced” economies refers to countries with a gross national income (GNI) per capita of US\$12,276 or more. “Emerging” refers to upper-middle income countries (GNI between US\$3,976 and 12,275) and “developing” to low- and lower-middle income countries (GNI of US\$3,975 or less). See Appendix A for more details regarding country groupings.

Table 1.1 Economic growth projections for 2012, by date of forecast

		World	Advanced economies	Emerging economies	Developing economies
Date of the forecast	October 2010	4.5	2.7	6.6	6.6
	April 2011	4.5	2.7	6.7	6.5
	September 2011	4.0	1.9	6.2	6.2

Note: Figures are rounded to the nearest decimal. See Appendix A for the detailed list of countries for each income grouping.

Source: ILS based on IMF World Economic Outlook.

A. Labour market conditions have weakened

The macroeconomic climate has deteriorated and remains volatile ...

The current economic environment is characterized by significant market volatility and deterioration in the economic outlook. Recently, the IMF revised downward its forecast for 2012 significantly, especially for advanced economies (table 1.1). Compared with forecasts made in October of 2010, world GDP is expected to slow by 0.5 percentage points, i.e. a fall from roughly 4.5 per cent to the now estimated 4 per cent. The downward revision in growth was particularly strong in advanced economies: GDP growth in 2012 is now expected to be 1.9 per cent compared with estimates of 2.7 a year ago. Growth is also slowing in emerging and developing countries, albeit to a lesser extent.

A number of factors are at play. The re-emergence of a fiscal crisis in Europe and continued concerns over Greek debt are destabilizing financial markets (see also Box 1.1). At the height of the crisis, the balance sheet of major central banks – the US Federal Reserve, the Bank of Japan and the European Central Bank – expanded threefold in an attempt to provide liquidity to the banking sector and prevent a global collapse of intermediated finance. A new agreement on banking supervision and regulation – the Basel III accords – has attempted to address a number of structural issues, including raising capital adequacy ratios.³ Yet, financial reforms have not met expectations – banks are still considered to be too weak and risk-averse to sustain a recovery in credit growth. Small firms – engines of job creation – continue to face tight credit conditions in many advanced economies (see Chapter 2).⁴

Large amounts of household debt accumulated in the run-up to the crisis are weighing heavily on private consumption in the recovery. Indeed, as consumers attempt to reduce their leverage ratios in order to return to more sustainable levels of indebtedness, private consumption around the globe is being depressed – which is adversely affecting the inclination of companies to expand their productive capacity.

Emerging economies have been affected by the volatility of capital flows. The sluggish recovery in the real economy in advanced economies, banks' continuing risk aversion and prevailing monetary conditions have triggered a new "search for yield" among financial investors, which has led to an upsurge in international

3. Some countries have adopted further reform measures; see Ernst (2011a).

4. See also IMF (2011a).

Box 1.1 European financial safety measures and recovery prospects

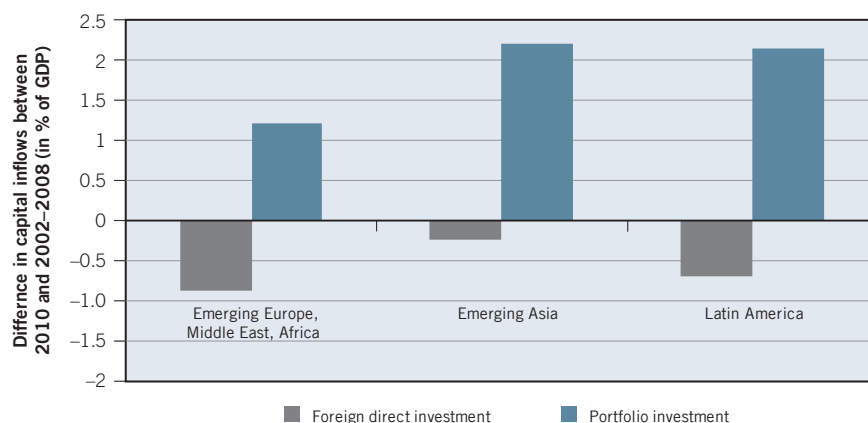
In order to prevent a sovereign default of one of their member countries, EcoFin – the Council of European Economics and Finance Ministers – together with the IMF undertook some short-term support measures to maintain sovereign solvency and to prevent high long-term interest rates from choking off the recovery underway in the euro area:

- Two temporary funding facilities have been set up, the *European Financial Stability Facility* (EFSF) and the *European Financial Stabilisation Mechanism* (EFSM), which will together provide a financial safety net of up to €750 billion. By mid-2013, these temporary facilities are planned to be replaced by the *European Stability Mechanism* (ESM).
- The *Competitiveness Pact* – or ‘Euro-Plus’ Pact – intends to accelerate convergence among member countries in order to avoid a further divergence of economic fundamentals that may threaten the cohesion of the entire currency area.

On top of that, In September 2011 the European Parliament approved a bundle of six laws – the so-called ‘*six pack*’ reforms – designed to avert future debt crises by tightening European Union scrutiny on national budgets by introducing swift penalties for states that do not comply with rules. Three of the six texts in the package focus on budgets, two set up a new alert and sanctions system for economic imbalances, and the sixth sets out common standards for national accounts:

- Under the *amendments of regulation 1466/97 on budgetary and economic surveillance*, and as part of the ‘*European Semester*’ (a revamped timetable for budget-making introduced in 2011), national budget plans will now be sent first to the European Commission in April, and then to the European Council in June and July, before they can be finalized for the following year. Also, from 2012 onwards, countries will not be allowed to increase their spending by more than their average GDP growth over a given period. If countries fail to meet these requirements and take action seven months after the Commission’s warning, the latter will be able to levy a financial penalty of at least 0.2% of GDP on the government.
- Under the *amendments of regulation 1467/97 on the excessive deficit procedure*, from now on, countries that are in breach of the 60 per cent debt limit will have to reduce their excess debt by at least 0.5 per cent of GDP on average over three years. Countries can nevertheless avoid the excessive deficit procedure and sanctions if their excess debt is racked up because of pension costs or other essential economic reforms.
- Under the *new Regulation on fines for deficit countries*, countries that flout their medium-term objectives, or the European Union’s debt and deficit limits, can be fined between 0.2 per cent and 0.5 per cent of the previous year’s GDP (as it was the case with Greece).
- *New regulation setting up a monitoring system for “imbalances”*, with the European Commission entitled to conduct in-depth reviews of countries that cross the thresholds for public and private indebtedness, house prices, unemployment, current account balance, real effective exchange rates etc. If “excessive” imbalances exist, the Commission will ask the government to submit a corrective action plan. If after six months and two warnings no progress has been made, the country can be fined 0.1 per cent of its GDP.
- *Regulation on sanctions for excessive imbalances*: after two warnings, countries that fail to abide by the Commission’s recommendations will be subject of a fine of 0.1 per cent of their GDP.
- *New directive setting statistical and budgetary standards*: state accounts should be published monthly, regional accounts quarterly; debt and deficit limits should be written into law (except in the UK); budget planning should be done over three years; independent auditors should check all government accounts. This will be applied from 2014 onwards.

Figure 1.1 Composition of capital inflows to emerging markets (2002-08 versus 2010)



Note: The chart shows the difference between capital inflows in 2010 and average yearly capital inflows during the pre-crisis period 2002 to 2008. Emerging Europe, Middle East and Africa: Egypt, Hungary, Israel, Poland, Russian Federation, South Africa and Turkey; Emerging Asia: India, Indonesia, Republic of Korea, Malaysia, Philippines, Taiwan, China and Thailand; Latin America: Argentina, Brazil, Chile, Colombia, Mexico, Peru.

Source: ILS based on IMF (2011a).

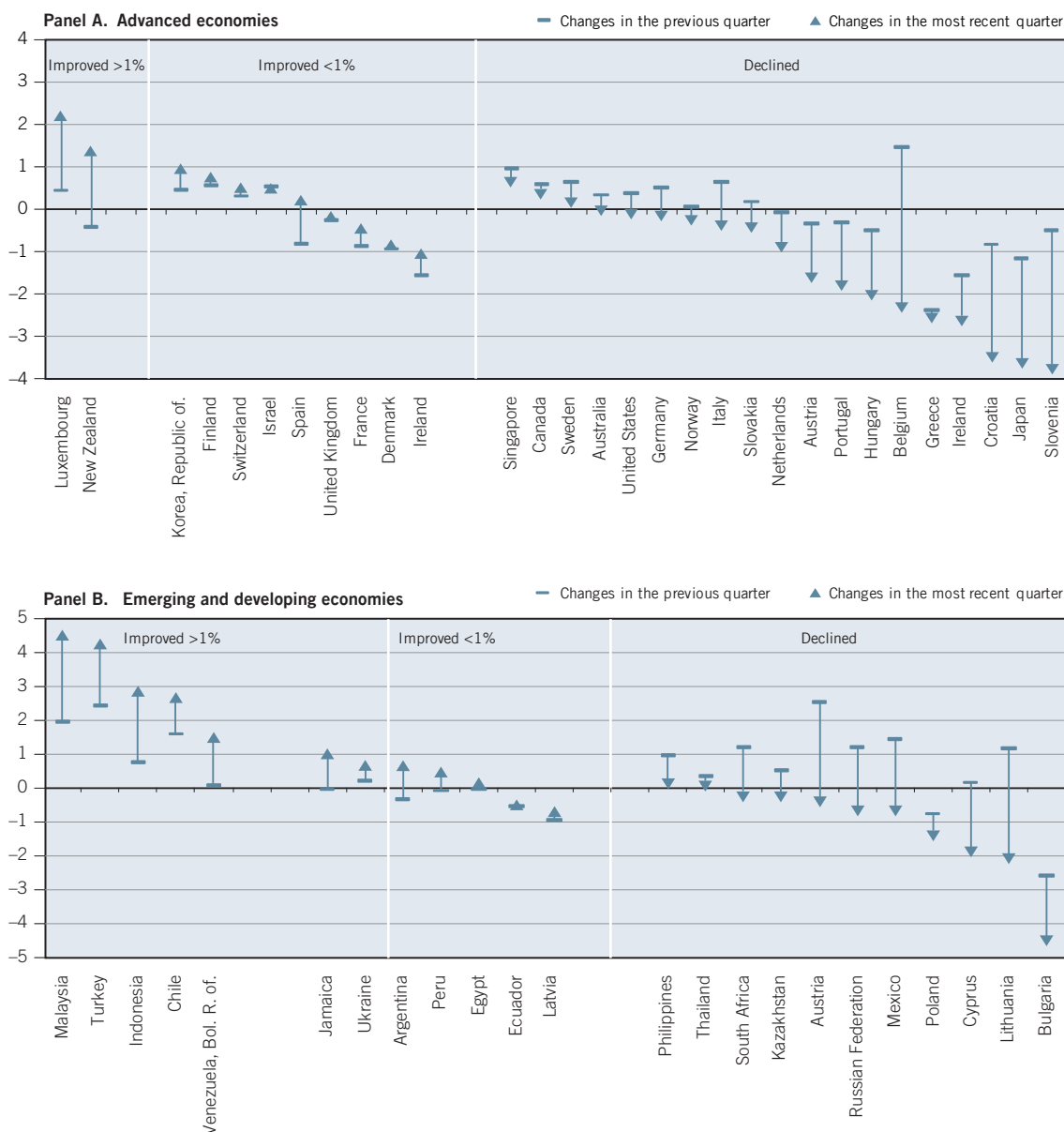
capital flows into emerging countries, where new investment opportunities seemed to be more widespread (figure 1.1). The dramatic increase in capital flows has had a negative impact on wage share developments (see Chapter 3). Importantly, the composition of capital inflows has changed dramatically, privileging short-term portfolio flows (“hot money”), instead of longer term commitments that would boost potential growth, such as foreign direct investment (see also Chapter 2). Indeed, none of the emerging market regions have seen a substantial recovery of foreign direct investment inflows into their economies. Rather, international investors prefer short-term debt or equity investments which can be withdrawn more rapidly in case the outlook worsens.

... and employment growth has already begun to slow as a result ...

The slowdown in economic activity is already having an adverse effect on employment. More than half of the countries with available information have experienced negative job creation in the most recent period and only seven countries experienced positive job creation greater than 1 per cent in the most recent quarter (figure 1.2). In nearly two-thirds of advanced economies, employment growth has slowed, i.e. the most recent quarterly gains are lower than in the previous quarters. The trend decline in job creation is especially strong in European countries. In emerging and developing economies with available information, close to half have experienced a slowdown in job creation, with a similar amount even experiencing job declines – notably Mexico and the Russian Federation.

Moreover, job creation started to weaken before any substantial progress had been made in terms of employment recovery, and nearly two-thirds of advanced economies are continuing to struggle to reach to their pre-crisis employment levels (figure 1.3, panel A). Among these countries, more than 13 million jobs are needed to recover employment to the levels achieved in 2007. The challenge is particularly acute in European economies, where employment levels remain 4.5 million jobs below the pre-crisis peaks. Moreover, Spain and the United States together account for roughly half of the missing 13 million jobs. Other countries, notably

Figure 1.2 Employment growth developments in the most recent period (seasonally adjusted)



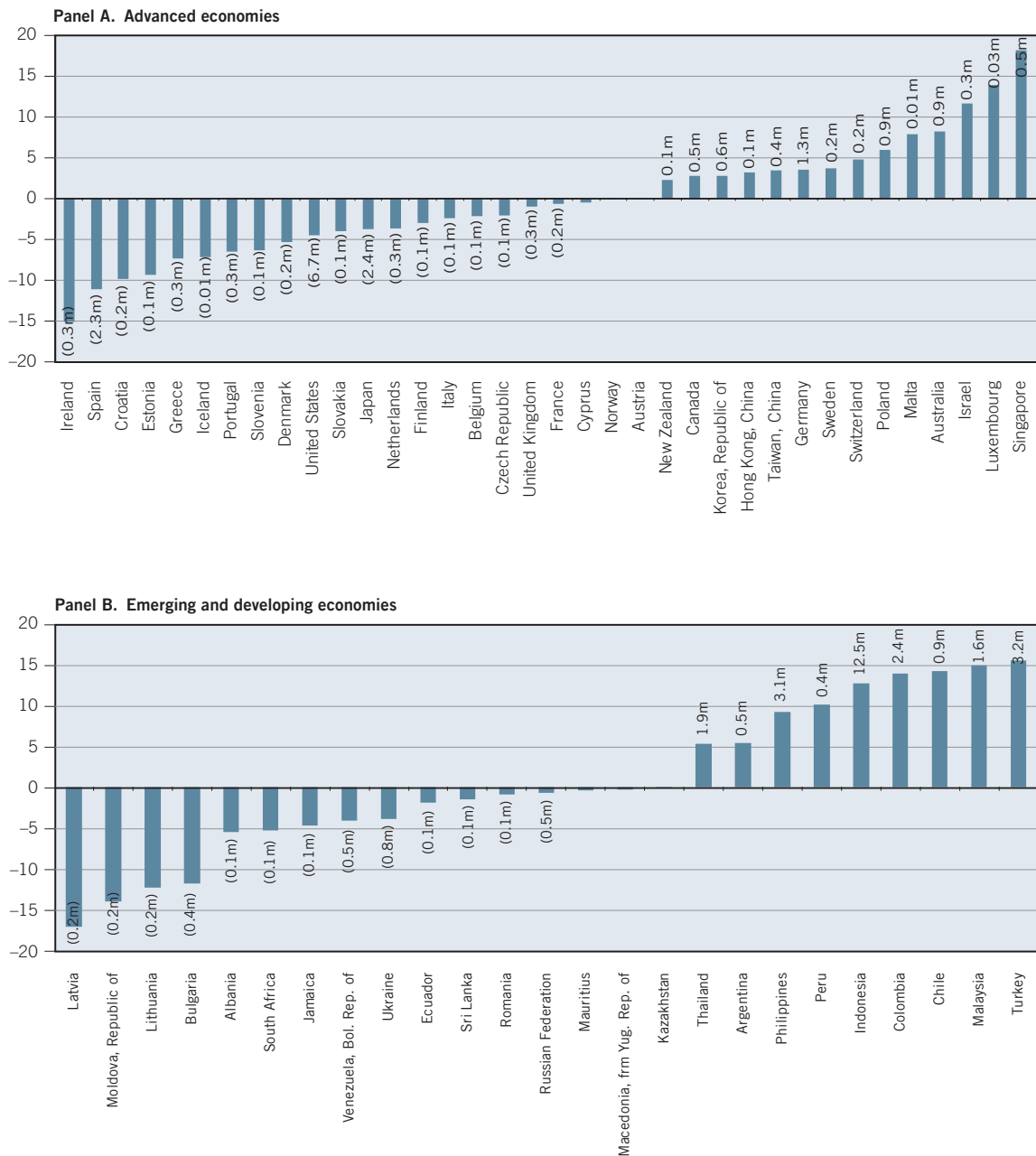
Note: The first quarter of 2011 is used as the most recent quarter, except for Australia, Belgium, Chile, Finland, Japan, Republic of Korea, Russian Federation, Spain, Sweden, and United States (second quarter of 2011); Egypt, Thailand, Ukraine (fourth quarter of 2010); Mexico (third quarter of 2010); and Indonesia (first half of 2011).

Source: ILS based on ILO, Short term indicators of the labour market; EUROSTAT, LFS.

Australia, Israel, Luxembourg and Singapore, have fared well in comparison, with employment higher by 8 per cent or more compared with the pre-crisis peaks.

In emerging and developing economies, employment has generally recovered much faster (figure 1.3, panel B). However, among 25 countries with available information, 16 still have employment levels below the pre-crisis peaks. Among these countries the job shortfall is roughly 4.4 million. Among major emerging economies, South Africa and the Russian Federation – despite strong job creation in the early phases of the recovery – are struggling to match previous peaks. Indeed, recent employment growth in these two countries was negative (see figure 1.2).

Figure 1.3 Current employment levels compared to pre-crisis peaks (percentages)



Note: The chart shows current employment levels as a share of pre-crisis peak levels. Figures in parentheses refer to millions of job above (or below) pre-crisis levels.

Source: IILS calculations based on Laborsta.

... with youth unemployment, low-quality jobs and labour market exclusion becoming commonplace.

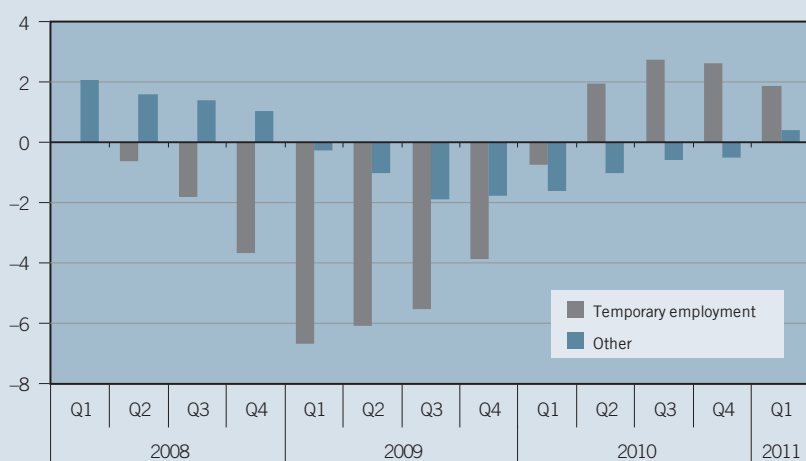
Poor job prospects continue to take their toll on youth aged 15 to 24. Among countries with recently available data, more than one in five youth, i.e. 20 per cent, were unemployed as of the first quarter of 2011 – against total unemployment of 9.6 per cent.⁵ And given that youth unemployment rates have remained above 20 per cent

5. These numbers refer to weighted averages for 48 countries with recent information available. See also ILO (2011a) for more information regarding the challenge of youth unemployment.

Box 1.2 The decline in employment quality: The case of the European Union

Growth in temporary employment has offset other job losses in Europe in 2010 (figure 1.4).⁶ Indeed, other forms of employment actually fell in each quarter of 2010, increasing only modestly in the first quarter of 2011. However, temporary forms of employment are typically cyclical in nature and are generally less well remunerated than standard jobs; moreover, given the labour market uncertainty associated with atypical employment, higher precautionary saving among this group is also likely to have contributed to lower consumption levels.⁷

Figure 1.4 Employment developments in the EU-27 by job type, 2008 to 2011



Source: ILS based on OECD Employment database.

per cent since the second quarter of 2009, this does not bode well for future labour market success in terms of skills acquisition and earnings capacity over the long term. Quality jobs have been scarce, notably in the European Union, where only temporary jobs have shown an increase (box 1.2).

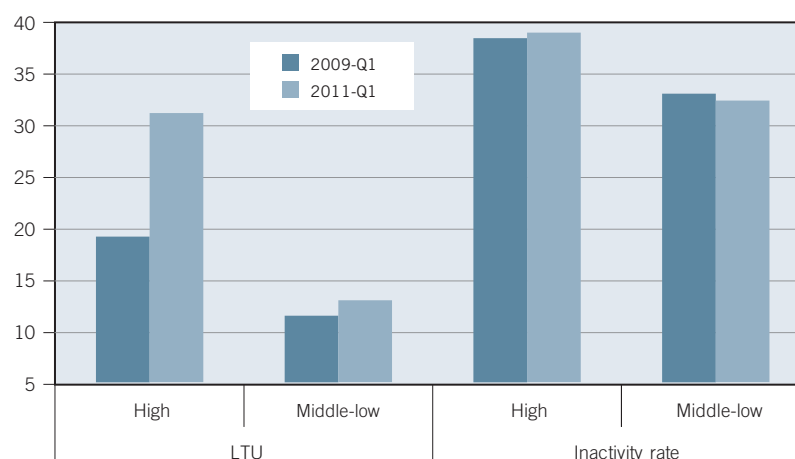
In addition, the prolonged labour market recession is having longer term consequences. With unemployment high and persistent, long-term unemployment rates, i.e. the share of unemployed persons out of work for 12 months or more, have increased in both advanced and emerging economies (figure 1.5). The increase – more than 10 percentage points (or 6 million people) since the first quarter of 2009 – has been particularly acute in advanced economies.

Moreover, many unemployed have become discouraged and have started to leave the labour market entirely – more than 8 million individuals in advanced economies have left the labour market since the first quarter of 2009 (inactivity rate increased by half a percentage point). Such developments run the risk of permanently reducing the level of potential employment, thereby reducing future development opportunities. Falling participation rates and increasing structural

6. ILS estimates indicate that unemployment rates have increased more in countries where temporary employment was higher initially. For example, among countries with available information, each percentage point of temporary employment is associated with an increase of 1.7 percentage points in unemployment.

7. See for example ILO (2009) and Guiso et al. (1992).

Figure 1.5 Long-term unemployment and inactivity rates (percentages)



Source: ILS calculations based upon LaborStat.

Table 1.2 Estimated employment shortages over 2012 to 2013

Region	Employment required over next two years to reach 2007 employment rate (millions)	Projected employment over 2012-13 (millions)	Job shortage (millions)
Advanced economies	27.2	2.5	-24.7
Emerging and developing economies	52.8	37.7	-15.1
World	80.0	40.1	-39.9

Note: Employment and working-age population refer to people aged 15 and over.
Source: ILS calculations based on Laborsta and KILM (see also Appendix B).

unemployment rates – which were evident in Europe in the early 1990s – can lead to inflationary pressures and a sharp readjustment of monetary and fiscal policies, with adverse consequences for longer term employment and income expansion.

B. Employment outlook: Insufficient job creation

The short-term outlook has deteriorated significantly, creating a large jobs gap ...

The sharp and widespread economic slowdown described above will have a significant impact on employment creation over the near term.⁸ Job creation at the aggregate level is expected to remain positive, but when the strong growth in the working-age population – many of whom are youth – is taken into account,

8. The projections presented in this section draw on employment–output elasticities estimated by way of an econometric analysis of the impact of economic growth on employment during past-crises; see Appendix B for methodological considerations.

80 million jobs need to be created over the next two years, i.e. 2012 and 2013, to return to 2007 employment rates (table 1.2).⁹ However, the recent slowdown in economic activity suggests that the world economy is likely to create a little over half of the jobs needed. As such, the jobs shortage created over the next two years will be close to 40 million. The problem is particularly acute in advanced economies, which account for more than half of the global jobs shortage.

... delaying further the recovery in advanced economies ...

Under current growth estimates, employment growth in advanced economies is not expected to recover to pre-crisis levels before at least 2016 (figure 1.6, panel A). Once the growth in the working-age population is taken into account, the employment rate does not recover in the medium term (figure 1.6, panel B). Given the recent market turbulence and volatility, under a more pessimistic growth scenario – i.e. a further slowdown of one percentage point – employment takes even longer to return to the pre-crisis levels and creates an employment gap relative to the baseline of roughly 2 per cent. Similarly, the employment-to-population ratio will remain below 69 per cent in the pessimistic scenario, and far below the 71 per cent attained at the peak before the crisis.

... and slowing the pace of employment growth in emerging economies ...

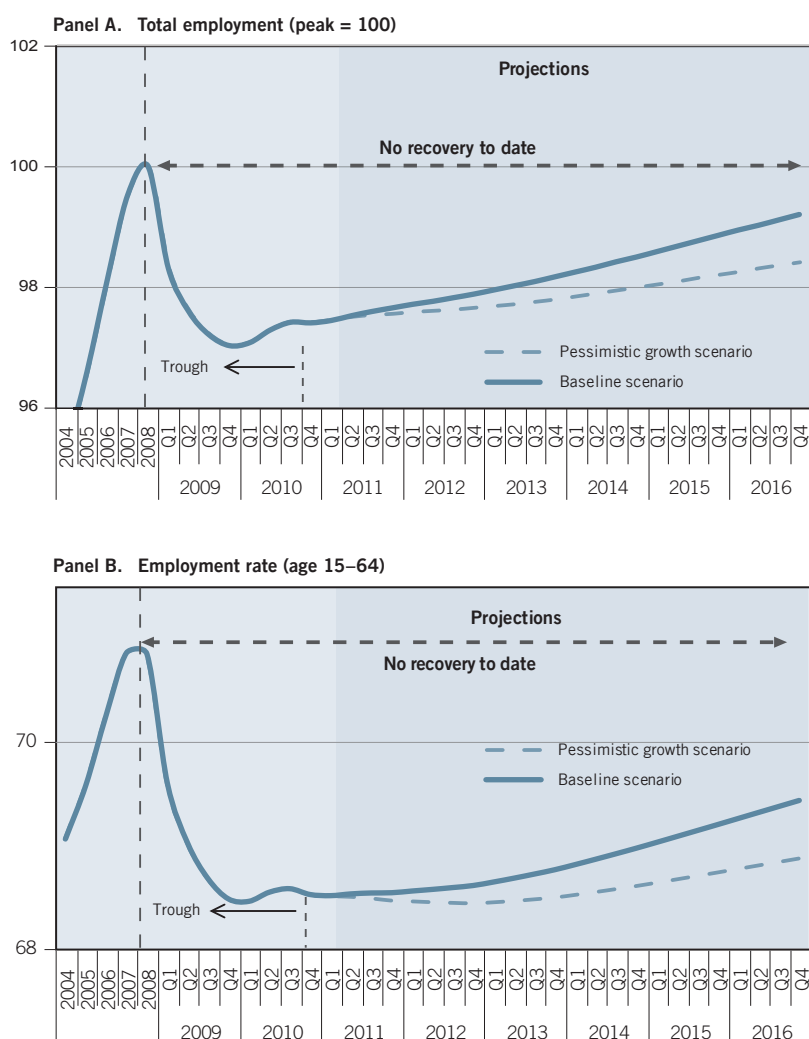
The recovery strongly benefited emerging economies: the positive growth in the terms of trade and the additional boost from increased investments helped emerging economies to stimulate job creation quickly (figure 1.7, panel A). As a result, this group of countries managed to recover pre-crisis levels of employment in less than two years following the onset of the crisis. Going forward, economic growth is expected to be lower than previously expected, due in part to spillover effects from advanced economies and given that higher inflation is eroding growth prospects. As such, while job creation will remain robust, employment will now grow at a slower pace. Employment rates are expected to return to pre-crisis levels in 2012 – or 2014 if growth slows by 1 percentage point (figure 1.7, panel B).

... and developing economies.

Employment in developing economies continues to grow and – like emerging economies – has only suffered a temporary slowdown in job creation (figure 1.8, panel A). However, against the backdrop of a rapidly expanding working-age population, employment rates are expected to be relatively stagnant until roughly 2013, recovering thereafter (figure 1.8, panel B). If, however, the economic outlook deteriorates further (pessimistic scenario), the employment rate would actually decline for two years and begin to grow once again in 2014.

10 9. Employment rate is the ratio of employment to working-age population.

Figure 1.6 Employment projections: Advanced economies



Note: See Appendix B for methodological considerations.

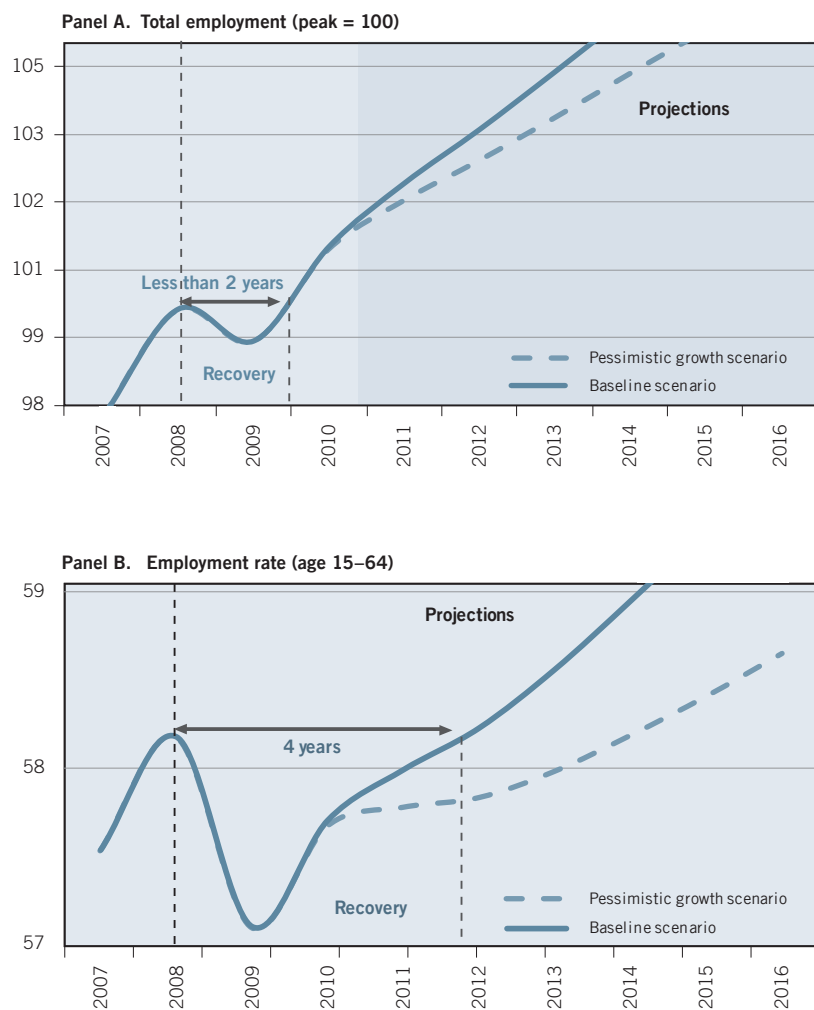
Source: ILS estimates based on ILO Laborsta and IMF (2011b).

C. Recent trends in social well-being and unrest¹⁰

Against the backdrop of deteriorating labour market conditions, the global social climate continues to worsen. Following on the heels of unrest in the Middle East and North Africa, there has been a significant increase in the number of street demonstrations and protests in advanced countries. Indeed, a global survey of over 150 countries and territories in 2010 shows heightened socio-economic insecurity around the world.

10. Analysis in this section is based on the most recent global survey data from Gallup World Poll. In this section, data are presented by ILO region and, therefore, Hungary and Poland are included in the Central and South Eastern Europe and Commonwealth of Independent States group rather than advanced economies.

Figure 1.7 Employment projections: Emerging economies



Note: See Appendix B for methodological considerations.

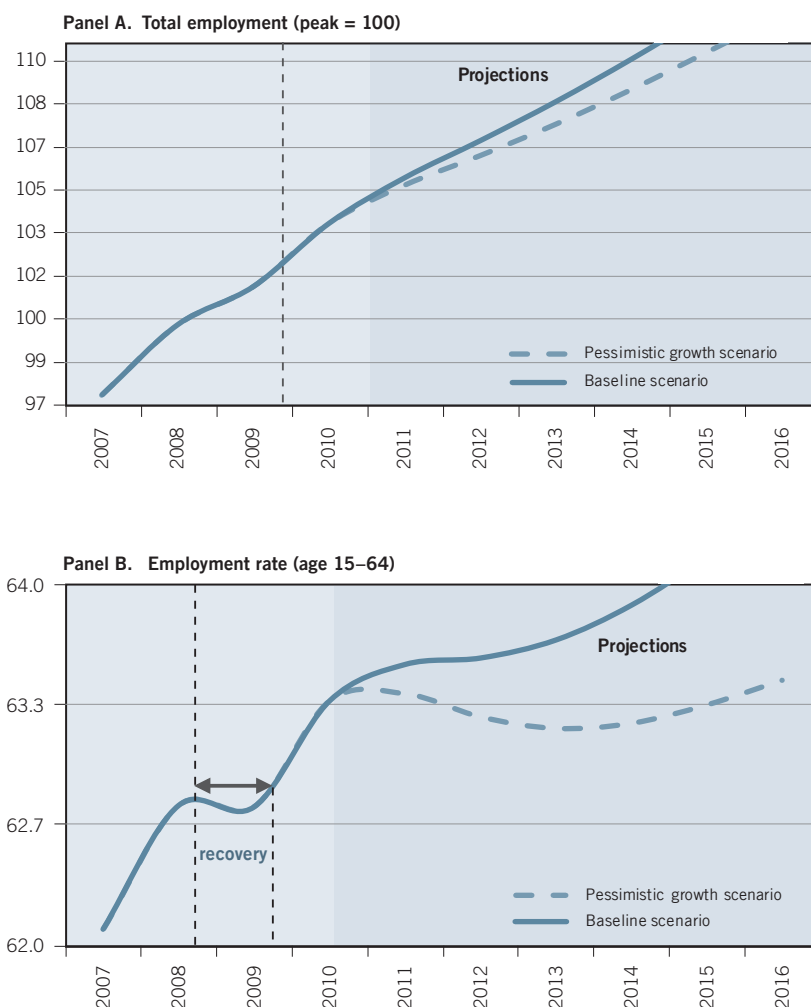
Source: ILS estimates based on ILO Laborsta and IMF (2011b).

Social unrest is on the rise, especially in advanced economies ...

Out of the 119 countries for which 2009 and 2010 Gallup survey data are available, 40 per cent of the countries show an increase in the scores for the social unrest index (the higher the score, the higher the estimated unrest).¹¹ Importantly, caution should be taken in comparing levels of unrest across countries and regions because people's perception of, for example, what constitutes satisfaction or dissatisfaction with the state of freedom and democracy tends to vary widely. Nevertheless, the changes within regions and countries can prove insightful for assessing changes over time.

11. The social unrest index was constructed using the following variables and corresponding weights: percentage of respondents reporting lack of confidence in their national government (0.3); percentage of respondents reporting that their standard of living was getting worse (0.2); percentage of respondents reporting dissatisfaction with freedom in their country (0.2); percentage of respondents reporting that their national economy was getting worse (0.2); and percentage of respondents with access to the Internet (0.1). The weights were based on other indexes for social and political unrest (see Appendix C).

Figure 1.8 Employment projections: Developing economies



Note: See Appendix B for methodological considerations.

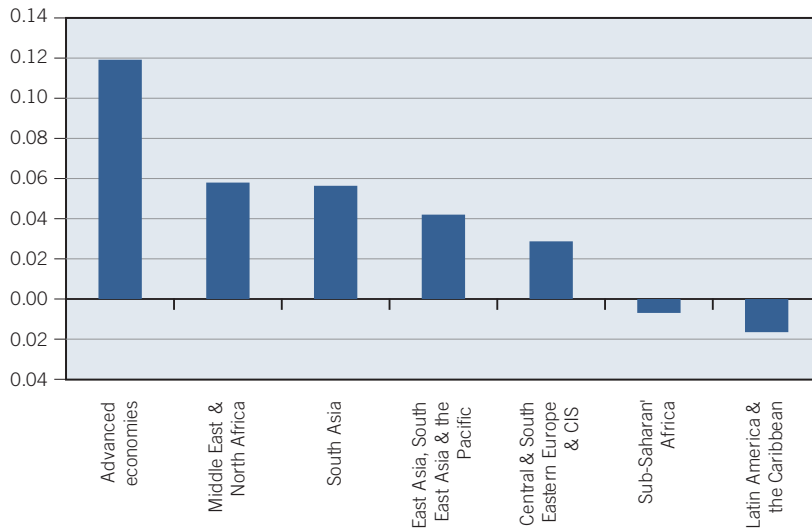
Source: ILS estimates based on ILO Laborsta and IMF (2011b).

With this in mind, in 2010, the social unrest index increased for all regions of the world except Latin America and the Caribbean and sub-Saharan Africa (figure 1.9). The largest increases took place in advanced economies, with sizeable increases occurring also in Middle East and North Africa and South Asia.

... with dissatisfaction in employment prospects particularly high.

In nearly all regions, the vast majority of people are not satisfied with the availability of quality jobs (table 1.3). Dissatisfaction is highest in Central and Eastern Europe and CIS and sub-Saharan Africa, where dissatisfaction reaches over 70 per cent and 80 per cent, respectively. In the case of Middle East and North Africa – the epicentre of recent social and political upheavals – job dissatisfaction is slightly lower, at 60 per cent. Of course, within this region there is considerable inter-country variation, with Egypt, Jordan and Lebanon reporting that in 2010 more than three-quarters of people were unsatisfied with the availability of good jobs. In advanced economies, the problem is particularly acute in Greece, Italy, Portugal,

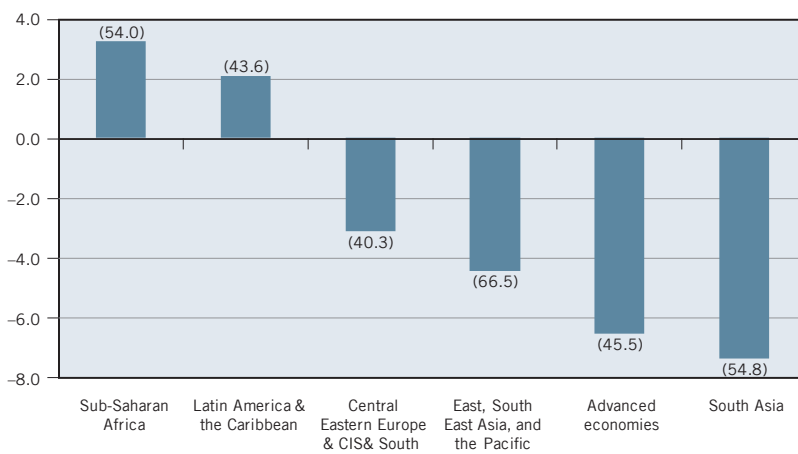
Figure 1.9 Change in the risk of social unrest between 2006 and 2010 (scale of 0 to 1)



Note: A positive value means a higher estimated risk of social unrest (see Appendix C).

Source: ILS estimates based on Gallup World Poll Data, 2011.

Figure 1.10 People reporting confidence in their national government, 2006 to 2010 (percentage point change)



Note: The number in parentheses refers to the percentage of survey respondents that said they have confidence in their government in 2010. The graph includes percentage of respondents reporting “Yes” to the following question: “In this country, do you have confidence in each of the following, or not? How about national government?” For Middle East and North Africa, the data refer to 2008 and 2009 due to low response rates in 2006 and 2010.

Source: ILS estimates based on Gallup World Poll Data, 2011.

Slovakia, Slovenia and Spain, where more than 70 per cent of survey respondents reported dissatisfaction with the job market.

In regions that have fared relatively well since the onset of the crisis, such as East and South East Asia and Latin America, dissatisfaction tends to be much lower. However there are exceptions: for example, in China more than 50 per cent report dissatisfaction. Similarly, Latin America and the Caribbean countries, such

Table 1.3 Dissatisfaction with the availability of good jobs, by age group, 2010 (percentage dissatisfied)

	Age group				Total
	15–24	25–34	35–49	50 and over	
East Asia, South East Asia and the Pacific	42	45	46	45	44
<i>Most dissatisfied in: China, Indonesia and Mongolia (above 50%).</i>					
Advanced Economies	52	56	59	55	55
<i>Most dissatisfied in: Greece, Italy, Portugal, Slovakia, Slovenia and Spain (above 70%).</i>					
Latin America and the Caribbean	53	58	56	55	55
<i>Most dissatisfied in: Dominican Republic, Ecuador, Haiti, Nicaragua and Uruguay (above 60%).</i>					
Middle East and North Africa	58	61	60	61	59
<i>Most dissatisfied in: Egypt, Jordan, Lebanon, Sudan and Yemen (above 75%).</i>					
South Asia	63	62	64	62	63
<i>Most dissatisfied in: Bangladesh, Pakistan and Nepal (above 60%).</i>					
Central and South Eastern Europe and CIS	69	73	74	71	71
<i>Most dissatisfied in: Armenia, Bulgaria, Georgia, Lithuania, Moldova and Romania (above 80%).</i>					
Sub-Saharan Africa	79	79	79	80	79
<i>Most dissatisfied in: Burkina Faso, Liberia, Senegal, Sierra Leone and Tanzania (above 85%).</i>					

Note: The question that was asked was: "In the city or area where you live, are you satisfied or dissatisfied with the availability of good job opportunities?" The percentages of respondents that answered "dissatisfied" are reported in this table.

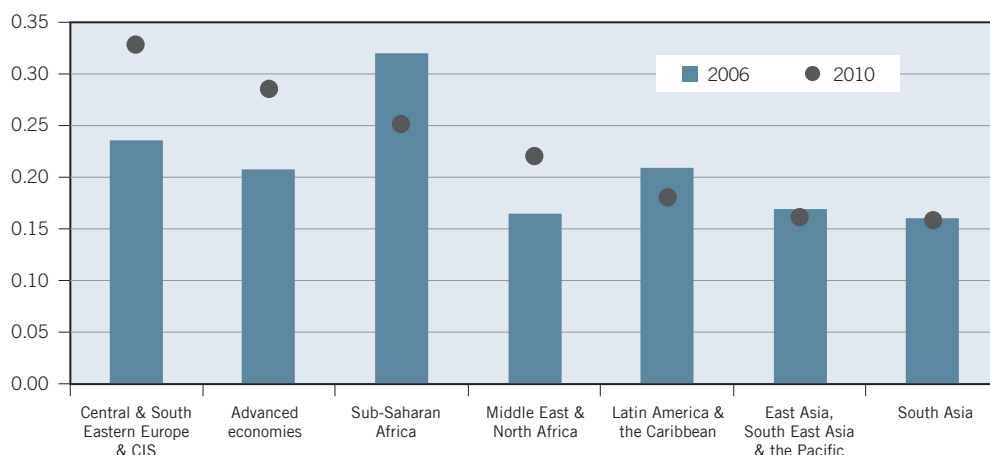
Source: ILS estimates based on Gallup World Poll Data, 2011.

as the Dominican Republic, Ecuador, Haiti, Nicaragua and Uruguay, more than 60 per cent are dissatisfied with the job market.

Confidence in government has deteriorated considerably since the onset of the crisis ...

Recent data show that confidence in government continues to remain low and has fallen since the start of the crisis. With the exception of Latin America and the Caribbean and sub-Saharan Africa, confidence has fallen across all regions (figure 1.10). In fact, among 99 countries with available information, 50 per cent report lower confidence in government in 2010 than in 2006. In terms of overall levels, the shares vary across groups. Confidence is lowest in Central and Eastern Europe and CIS, advanced economies and Latin America and the Caribbean, with more than one in two respondents reporting that they did not have confidence in their government in 2010.

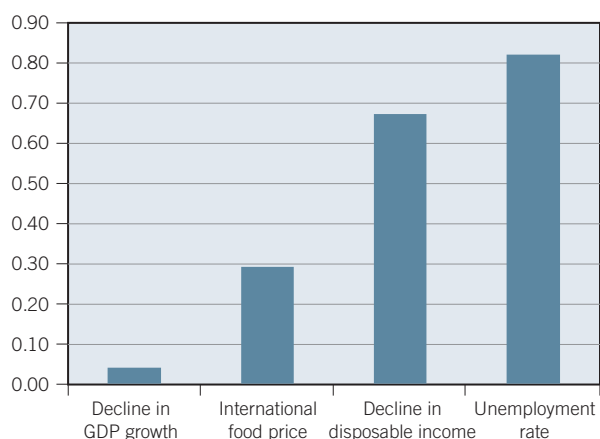
Figure 1.11 Change in perception of standard of living getting worse, 2006 to 2010 (percentages)



Note: The question that was asked was: "Right now, do you feel your standard of living is getting better or getting worse?" The data above refer to the percentage of survey respondents that answered that their standard of living was getting worse.

Source: ILS estimates based on Gallup World Poll Data, 2011.

Figure 1.12 Determinants of social unrest, 2010



Note: Y-axis units refer to the magnitude of the standardized coefficient estimated. Unemployment rate and international food price are statistically significant at the 1 per cent level. Recent data on measures of income inequality are only available for few countries and were thus excluded from the regressions to preserve the degrees of freedom. See Appendix C for methodological details.

Source: ILS estimates based on data from Gallup World Poll, ILO, IMF, OECD and the World Bank.

... and so too has the perception of standard of living.

Out of 118 countries with available data, 58 per cent of countries in 2010 show a larger fraction of people reporting a worsening of living standards than in 2006. The increase was particularly notable in Central and South Eastern Europe and CIS, where the percentage of people reporting a worsening of living standards increased from 23 per cent in 2006 to 33 per cent in 2010 (figure 1.11). Similar increases were present among advanced economies (from one-fifth to close to one-third) and Middle East and North Africa (from 16 per cent to 22 per cent). Only in Latin America and the Caribbean and sub-Saharan Africa did perceptions improve considerably (in South Asia and East and South East Asia the figures remained unchanged at roughly 16 per cent).

Box 1.3 Determinants of social unrest

In the past, understanding social unrest centred primarily on examining the role of civil wars and their cause, but recently, the focus has shifted to other forms of social unrest, such as anti-government demonstrations and riots (Arezki and Bruckner, 2011). Several factors emerge from the literature as being central to determining unrest:

- *Income inequality and perception of injustice*: Perception of economic and social disparities, and increasing social exclusion, is said to have a negative impact on social cohesion and tends to lead to social unrest (Easterly and Levine, 1997).
- *Fiscal consolidation and budget cuts*: Austerity measures have led to politically motivated protests and social instability. This has been the case in Europe for many years, from the end of the Weimar Republic in the 1930s to today's anti-government demonstrations in Greece (Ponticelli and Voth, 2011), but has also been a feature in developing countries, especially in over-urbanized zones, where protests have arisen following the implementation of austerity programmes imposed by the International Monetary Fund or the World Bank (Walton and Ragin, 1990). Meanwhile, societies that are more indebted tend to have higher levels of social unrest (Woo, 2003).
- *Higher food prices*: In addition to collective frustrations regarding the democratic process, rising food prices were also central to the developments associated with the Arab Spring (Bellemare, 2011).
- *Heavy-handedness of the State*: In countries where the State has resorted to excessive use of force (police and military) to tackle social upheavals instead of focusing on the actual causes of unrest, such actions have often exacerbated the situation (Justino, 2007).
- *Presence of educated but dissatisfied populace*: Countries with large populations of young, educated people with limited employment prospects tend to experience unrest in the form protests (Jenkins, 1983; Jenkins and Wallace, 1996). This has been the case recently in many southern European countries, such as Greece and Spain.
- *Prevalence of mass media*: Past studies have highlighted the impact of radio on the organization of demonstrations, and clearly the use of the Internet (e.g. through the use of Facebook and Twitter) have played a role in recent incidences of unrest.

Employment, rather than growth, is a key determinant of social unrest.

Clearly, a number of factors are underlying social unrest (see box 1.3 for a brief overview of literature on the determinants of social unrest). For instance, in the Middle East and North Africa region, it is said that the absence of more democratic channels to express collective frustrations was one of the driving factors behind recent upheavals. Meanwhile, in other parts of the world, mainly advanced economies, lack of employment opportunities and inequality appear to be driving the numerous protests. With this in mind, the empirical assessment of the determinants undertaken reveals that unemployment is most strongly associated with the estimated risks of social unrest, along with disposable income (figure 1.12). Rising food prices are also associated with an increase in social unrest. Economic growth, on the other hand, matters much less.

D. Making markets work for jobs: The way forward

It is not too late to put the global economy back onto a recovery path; but first, the underlying structural issues that led to the crisis need to be addressed once and for all. At the same time, however, labour markets need immediate support, otherwise the vicious circle of unemployment, weak demand and slow growth will persist.

Placing emphasis on investment for job creation

Given the important role that the private sector will need to play for a sustainable recovery process, Chapter 2 examines the evolution of corporate profits – both financial and non-financial – leading up to and during the financial crisis. In particular, the chapter focuses on the developments of non-financial-sector capital shares with a view to finding the underlying factors explaining the trend decline in investment, especially in advanced economies. More importantly, the chapter explores the implications these trends have had for employment creation. In particular, a number of scenarios are developed in the chapter to simulate the effects that different policies may have in unlocking the investment potential so as to encourage job creation.

Efficient and fair wage policies to support recovery

Chapter 3 analyses the trend decline in labour's share of income over time and across regions, taking into consideration changes in skill and sectoral compositions. Against the backdrop of this analysis, the aim of this chapter is then to identify the factors behind this decline, paying particular attention to the roles of economic integration, labour institutions and labour market reforms in shaping overall income distribution. The chapter then identifies ways that an effective wage policy can help put the recovery from the global economic crisis onto a sustainable path, taking in to account country circumstances.

Food security and decent work

Rising food prices are leading to social unrest, as demonstrated in section C above. And although food crises are not new, rapidly growing populations in developing economies are increasingly putting more pressure on limited food supplies – with adverse consequences for poverty and development prospects more broadly. Higher food prices also put a strain on public finances (in the form of increased subsidies) and allow less space for policies directed towards social protection, employment creation and rural development. The challenge for policy is to improve food security, by providing immediate assistance for those most in need while also targeting medium- to long-term measures to impose price stability. Chapter 4 examines the macroeconomic, labour market and social impacts of higher food prices; analyses the factors contributing to the food price increases; and discusses the key policy challenges.

Tax reforms

Global fiscal deficits have deteriorated since the financial crisis of 2008, as government tax revenues have declined and expenditures have dramatically increased.

18 Chapter 5 analyses the extent to which employers and capital owners have been

able to shift the tax burden towards workers (through a decrease in net wages) and consumers (who bear the burden of value added tax increases). The chapter also highlights key areas of tax reform that can: (i) expand revenue through increased reliance on other forms of taxation, such as unearned income; and, (ii) improve compliance and reduce tax evasion.

Reconciling employment objectives and fiscal constraints

Against the backdrop of fiscal constraints and the urgent need to stimulate investment and employment, Chapter 6 seeks to determine the extent to which these two – seemingly conflicting – objectives can be achieved simultaneously. In the first instance, the chapter sets out to illustrate the extent to which budget cuts can be counterproductive, from both employment and fiscal perspectives. It then assesses how well-designed labour market policies can maximize the employment impact within limited fiscal space.

Appendix A

Country groupings by income level

Country	Income-level group ¹	Country	Income-level group ¹
Australia (AUS)	High	Kazakhstan (KAZ)	Upper middle
Armenia (ARM)	Lower middle	Korea, Republic of (KOR)	High
Austria (AUT)	High	Kyrgyzstan (KGZ)	Low
Azerbaijan (AZE)	Upper middle	Latvia (LVA)	Upper middle
Belarus (BLR)	Upper middle	Lithuania (LTU)	Upper middle
Belgium (BEL)	High	Luxembourg(LUX)	High
Bolivia (BOL)	Lower middle	Malta (MLT)	High
Brazil (BRA)	Upper middle	Mexico (MEX)	Upper middle
Canada (CAN)	High	Mongolia (MNG)	Lower middle
Chile (CHL)	Upper middle	Morocco (MAR)	Lower middle
China (CHN)	Upper middle	Netherlands (NLD)	High
Colombia (COL)	Upper middle	Niger (NER)	Low
Cyprus (CYP)	High	Norway (NOR)	High
Czech Republic (CZE)	High	Poland (POL)	High
Denmark (DNK)	High	Portugal (PRT)	High
Egypt (EGY)	Lower middle	Romania (ROU)	Upper middle
Estonia (EST)	High	Russian Federation (RUS)	Upper middle
Finland (FIN)	High	Serbia (SCG)	Upper middle
France (FRA)	High	Slovak Republic (SVK)	High
Guatemala (GTM)	Lower middle	Slovenia (SVN)	High
Germany (DEU)	High	South Africa (ZAF)	Upper middle
Greece (GRC)	High	Spain (ESP)	High
Hungary (HUN)	High	Sweden (SWE)	High
India (IND)	Lower middle	Switzerland (CHE)	High
Iran (IRN)	Upper middle	Tunisia (TUN)	Upper middle
Ireland (IRL)	High	United Kingdom (GBR)	High
Italy (ITA)	High	United States (USA)	High
Japan (JPN)	High	Venezuela (VEN)	Upper middle

¹ Income groups are based on GNI per capita according to the World Bank country classification, available at: <http://go.worldbank.org/K2CKM78CC0>. High-income countries are countries with a GNI per capita of US\$12,276 or more; upper-middle-income countries are countries with a GNI per capita of US\$3,976 to US\$12,275; lower-middle-income countries are countries with a GNI per capita of US\$1,006 to US\$3,975; and low-income countries are countries with a GNI per capita of US\$1,005 or less.

Appendix B

The impact of financial crises on employment: An empirical analysis

Section B of this chapter provided employment projections from 2011 to 2016 that are based on the following countries, which experienced a crisis in the past and for which there are sufficient historical time series data:

- *Advanced economies or high-income countries:* Econometric analysis for this group is based on 22 countries, 26 crises¹² and 737 observations. The countries in this group are: Australia, Canada, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Israel, Italy, Japan, Republic of Korea, New Zealand, Norway, Portugal, Slovakia, Spain, Sweden, the United Kingdom and the United States.¹³

- *Emerging economies or upper-middle-income countries:* Based on 26 countries and 33 crises: 211 observations were taken into account in the analysis, for Algeria, Argentina, Belarus, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Dominican Republic, Jamaica, Kazakhstan, Latvia, Lithuania, Macedonia, Malaysia, Mauritius, Mexico, Panama, Poland, Romania, Russian Federation, Serbia, Suriname, Turkey, Uruguay and Venezuela.¹⁴

- *Developing economies or lower-middle-income countries:* Based on 17 countries and 21 crises: 115 observations were taken into account in the analysis, for Albania, Armenia, Bolivia, China, Ecuador, Egypt, El Salvador, Georgia, Honduras, India, Indonesia, Moldova, Nicaragua, Paraguay, Philippines, Sri Lanka and Thailand.¹⁵

12. The following crises were taken into account in the analysis of this group: Australia, 1989–92; Canada, 1983–85; Czech Republic, 1996–2000; Denmark, 1987–92; Estonia, 1998; Finland, 1991–95; France, 1994–95; Germany, late 1970s; Hungary, 1991–95; Iceland, 1975; Iceland, 1989; Israel, 1977; Israel, 1985; Italy, 1981; Italy, 1990–95; Japan, 1997–2001; Republic of Korea, 1997–98; New Zealand, 1987–90; Norway, 1991–93; Portugal, 1983; Slovakia, 1998–2000; Spain, 1977–81; Sweden, 1991; United Kingdom, 1974–76; United Kingdom, 1980s–1990s; and the United States, 1988. The crises of all groups have been identified on the basis of Laeven and Valencia (2008, 2010).

13. Note that the high-income group contains more observations than the other groups because the analysis of the former is based on quarterly information rather than annual information.

14. The following crises were taken into account in the analysis of this group: Algeria, 1990–94; Argentina, 1989–91; Argentina, 1995; Argentina, 2001–03; Belarus, 1995; Brazil, 1994–98; Bulgaria, 1996–97; Chile, 1981–85; Colombia, 1982; Colombia, 1998–2000; Costa Rica, 1987–91; Costa Rica, 1994–95; Dominican Republic, 2003–04; Jamaica, 1996–98; Kazakhstan, 1999; Latvia, 1995–96; Lithuania, 1995–96; Macedonia, 1993–95; Malaysia, 1997–99; Mauritius, 1996; Mexico, 1994–96; Panama, 1988–89; Poland, 1992–94; Romania, 1990–92; Russian Federation, 1998; Serbia, 2000; Suriname, 1990; Turkey, 1982–84; Turkey, 2000; Uruguay, 1981–85; Uruguay, 2002–05; Venezuela, 1994–98; and Venezuela, 2002.

15. The following crises were taken into account in the analysis of this group: Albania, 1994; Armenia, 1994; Bolivia, 1986; Bolivia, 1994; China, 1998; Ecuador, 1982–86; Egypt, 1990; El Salvador, 1989–90; Georgia, 1999; Honduras, 1990; India, 1993; Indonesia, 1997–2001; Moldova, 1999; Nicaragua, 1990–93; Nicaragua, 2000–01; Paraguay, 2002; Philippines, 1983–86; Philippines, 1997–2000; Sri Lanka, 1989–91; Thailand, 1983; Thailand, 1997–2000.

These projections draw on output–employment elasticities, which have been estimated by way of the econometric analysis of the employment impact of the recovery phase during past financial crises. The projections are constructed by applying the employment elasticity of each group to the GDP growth projections from the *IMF World Economic Outlook*, September 2011 (IMF, 2011a) (projections from 2011 on), at a country level.¹⁶ In this sense, all statistically significant partial elasticities emerging from the inclusion of lagged GDP growth rates were taken into account by applying them to the GDP growth rate of their corresponding period by country.

The elasticities of employment growth (e_{it}^L) to GDP changes are calculated by means of Okun law panel regressions (following the methodology developed in Escudero, 2009) for the three groups of countries listed above. The following equation was estimated independently for each of the three country groups:

$$e_{it}^L = \beta_1 \Delta Y_{it} + \beta_2 \Delta Y_{it-n} + \varepsilon_{it} \quad (1)$$

where L_{it} corresponds to the annual (or quarterly for high-income countries) growth rate of employment and ΔY_{it} is the explanatory variable, measured by the annual (or quarterly for high-income countries) growth rate of GDP of the countries analysed. One or more lags of the growth rate of GDP are included in the estimations, depending on which group of countries is analysed. An overview of the different variables used and their sources and definitions is given in table 1B.1.

To construct the panel, data on employment growth around the years of crises were collected and centred in t_0 . This crisis-specific central time period corresponds to the year when the country experienced the lowest GDP annual/quarterly growth rate. In this way, a panel was constructed with an average of 26 observations for employment growth around the recovery phase of past crises ($t - 8$ to $t + 25$) for high-income countries and nine observations for employment growth around the recovery phase of past crises ($t - 2$ to $t + 6$) for upper-middle- and lower-middle-income countries. table 1B.2 gives a synthetic review of the econometric estimates reporting these elasticities.

Notes: Estimated based on ordinary least squares. All regressions are controlled for country-fixed effects. Absolute value of t -statistics in parentheses. Significance levels: * significant at 5 per cent; ** significant at 1 per cent. For details of the countries included in each group see Appendix A.

To take into account the peculiarities of the data set, regressions have been re-run to account for heteroscedasticity. To ensure that one or some of the countries did not influence the results, reduced regressions were also estimated by excluding the countries analysed one at a time. Moreover, table 1B.3 presents Generalized Least Squares (GLS) estimates and controls for autocorrelated error terms. As can be seen in all panels of table 1B.3, all coefficients remain highly significant, and the absolute sizes of the estimated effects change relatively little between different estimation methods, giving some confidence in the estimated effects.

16. Country-specific annual forecasts from IMF were converted into quarterly rates using the “effective periodic rate” calculation and were then used to establish future quarterly growth rates of employment for the high-income countries group.

Table 1B.1 Definitions and sources of variables used in the regression analysis

Variable	Definition	Source
GDP annual growth rate	Annual growth rate of real GDP, in national currency	IILS calculations based on the IMF <i>World Economic Outlook</i> (WEO), April 2010
GDP quarterly growth rate	Quarterly growth rate of real GDP, in national currency	IMF, IFS database and OECD, <i>Economic Outlook No. 87</i>
Employment growth for high-income countries	Quarterly growth rate of total employment	OECD, <i>Economic Outlook No. 87</i>
Employment growth for upper-middle-income countries	Annual growth rate of total employment	ILO, Laborsta database
Employment growth for lower-middle-income countries	Annual growth rate of total employment	IMF, IFS database
Frequency of financial crises	Time frames of financial crises in the countries analysed	Authors' estimates based on Laeven and Valencia, 2008 and 2010.

Table 1B.2 Regression results

	Advanced economies	Emerging economies	Developing economies
GDP (annual growth rate)	0.0238 (3.39)**	0.2785 (5.69)**	0.0481 (0.61)
Lag 1 of GDP	0.0311 (4.16)**		0.2624 (3.45)**
Lag 2 of GDP	0.0347 (4.52)**		
Lag 3 of GDP	0.0289 (3.75)**		
Lag 4 of GDP	0.0124 (1.68)*		
Lag 5 of GDP	0.0126 (1.88)*		
Constant	0.0123 (0.37)	0.4126 (1.51)	0.3731 (0.81)
Fixed effects	Yes	Yes	Yes
Observations	737	211	115
Number of crisis episodes	26	33	21

Notes: All regressions are controlled for country-fixed effects. Absolute value of t-statistics (z-statistics in the tests for autocorrelation) in parentheses. Significance levels: * significant at 5 per cent; ** significant at 1 per cent. For detail of the countries included in each group see appendix A.

Table 1B.3 Alternative estimators

Panel A. Advanced economies

	Baseline equation	GLS	GLS (heteroscedasticity)	GLS (autocorrelated errors)
GDP (annual growth rate)	0.0238 (3.39)**	0.0291 (4.05)**	0.0658 (6.31)**	0.0571 (6.17)**
Lag 1 of GDP	0.0311 (4.16)**	0.0397 (5.27)**	0.0839 (8.29)**	0.0840 (8.28)**
Lag 2 of GDP	0.0347 (4.52)**	0.0455 (5.98)**	0.0724 (7.21)**	0.0756 (7.26)**
Lag 3 of GDP	0.0289 (3.75)**	0.0399 (5.28)**	0.0669 (6.72)**	0.0673 (6.48)**
Lag 4 of GDP	0.0124 (1.68)*	0.0207 (2.82)**	0.0407 (4.09)**	0.0427 (4.19)**
Lag 5 of GDP	0.0126 (1.88)*	0.0167 (2.42)*	0.0223 (2.21)**	0.0235 (2.56)**
Constant	0.0123 (0.37)	-0.0233 (-0.69)	-0.1517 (-6.96)	-0.1529 (-4.99)
Observations	737	737	737	737
Number of crisis episodes	26	26	26	26

Panel B. Emerging economies

	Baseline equation (heteroscedasticity)	GLS	GLS (heteroscedasticity)	GLS (autocorrelated errors)
GDP (annual growth rate)	0.2785 (5.69)**	0.3140 (6.70)**	0.3063 (9.21)**	0.3025 (8.95)**
Constant	0.4126 (1.51)	0.3165 (1.11)	0.4423 (2.24)*	0.4303 (1.98)*
Observations	211	211	211	211
Number of crisis episodes	33	33	33	33

Panel C. Developing economies

	Baseline equation (heteroscedasticity)	GLS
GDP (annual growth rate)	0.0481 (0.61)	0.0138 (0.18)
Lag 1 of GDP	0.2624 (3.45)**	0.2536 (3.20)**
Constant	0.3731 (0.81)	0.2829 (0.60)
Observations	115	115
Number of crisis episodes	21	21
Observations	115	115
Number of crisis episodes	21	21

Note: All regressions are controlled for country-fixed effects. Absolute value of t-statistics (z-statistics in the tests for autocorrelation) in parentheses. Significance levels: * significant at 5 per cent; ** significant at 1 per cent. For detail of the countries included in each group see appendix A.

Appendix C

Determinants of social unrest: An empirical analysis

Section C of this chapter looks at the determinants of social unrest for the period 2006 to 2010, using data from 56 countries (Algeria, Argentina, Australia, Austria, Azerbaijan, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Croatia, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Finland, France, Germany, Greece, Hong Kong SAR, Hungary, Indonesia, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Malaysia, Mexico, Netherlands, New Zealand, Nigeria, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Singapore, Slovak Republic, South Africa, Spain, Sweden, Switzerland, Taiwan, China, Thailand, Turkey, Ukraine, United Kingdom, United States, Venezuela, Viet Nam). The variables included in the analysis are listed in table 1C.1.

The dependent variable used in this econometric exercise is the social unrest score. This indicator has been computed using several variables from Gallup World Poll Data and applying to them different weights. The variables and weights used are listed in table 1C.2.

Because of a problem of multicollinearity between total and youth unemployment rates, we separated those variables and estimated the following panel models:

$$SU_{it} = \alpha I + \lambda t + b_1 URT_{1564\ it} + b_2 GDP_{it} + b_3 GINI_{it} + \beta_4 INC_{it} + \beta_5 IFP_{it} + e_{it} \quad (1)$$

$$SU_{it} = \alpha I + \lambda t + b_1 URT_{1524\ it} + b_2 GDP_{it} + b_3 GINI_{it} + \beta_4 INC_{it} + \beta_5 IFP_{it} + e_{it} \quad (2)$$

where i and t are the cross-section and time suffixes; SU is the social unrest score; URT is the unemployment rate (where 1564 refers to total and 1524 to youth unemployment); GDP is the real GDP growth rate; $GINI$ is the Gini coefficient; INC is the real disposable income; IFP is the international food price; αi and λt are the country and time fixed effects; and e_{it} is the error term normally distributed. We estimate the models using fixed effects estimation methods.

The results of the estimations are displayed in table 1C.3. Due to strong data limitations regarding the Gini coefficient, we also estimated the model omitting this variable, in order to have the largest balanced sample of countries possible. Moreover, in order to derive some possible conclusions about the relative importance of the different estimated coefficients, we ran the same regressions using standardized variables (see table 1C.4).

Table 1C.1 Definitions and sources of variables used in the regression analysis

Variable	Definition	Source
Social unrest score	Based on lack of confidence in national government, perception of standard of living getting worse, dissatisfaction with the state of freedom and democracy, perception of national economy getting worse, and access to communication channels. As the score moves from 0 to 1, the incidence and likelihood of social unrest is higher.	Gallup World Poll Data
Unemployment rate (15–64)	Number of unemployed aged 15 to 64 as a percentage of the total labour force.	IMF <i>World Economic Outlook</i> April 2011
Real GDP growth	Growth rate of GDP at constant prices in US\$.	IMF <i>World Economic Outlook</i> April 2011
Gini coefficient	Measures the extent to which the distribution of income among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of zero represents perfect equality and 1, perfect inequality.	World Bank <i>World Development Indicators</i>
Real disposable income	Income of households after taking into consideration the effects of inflation on purchasing power.	Economist Intelligence Unit
Youth unemployment rate	Number of unemployed aged 15 to 24 as a percentage of the total labour force.	ILO KILM
International food price	International price of food commodities, in US\$ (2000 = 100)	UNCTAD

Table 1C.2 Weights of the variables used for the social unrest score

Variable	Question and answer	Weight
Confidence in government	In this country, do you have confidence in each of the following, or not? How about national government? Answer: NO	0.3
Living standards	Right now, do you feel your standard of living is getting better or getting worse? Answer: WORSE	0.2
Freedom	In this country, are you satisfied or dissatisfied with your freedom to choose what you do with your life? Answer: DISSATISFIED	0.2
Access to Internet	Does your home have access to the Internet? Answer: YES	0.2
Economic conditions	Right now, do you think that economic conditions in this country, as a whole, are getting better or getting worse? Answer: GETTING WORSE	0.1

Table 1C.3 Estimations of the social unrest score, unstandardized variables

	(1)	(2)	(3)	(4)
Variable	Social unrest score	Social unrest score	Social unrest score	Social unrest score
Unemployment rate	0.0195*** (0.00451)	0.0150*** (0.00243)		
Real GDP growth	-0.00106 (0.00222)	-0.00305*** (0.000804)	-0.000617 (0.00226)	0.00139 (0.00172)
Gini coefficient	-0.00355 (0.00647)		-0.00716 (0.00607)	
International food price	0.00107*** (0.000278)	0.000650*** (0.000122)	0.00112*** (0.000265)	0.00113*** (0.000179)
Real disposable income	-6.37e-08 (8.64e-08)	6.76e-09 (4.81e-08)	-4.34e-08 (8.36e-08)	-5.41e-08 (6.49e-08)
Youth unemployment			0.00914*** (0.00241)	0.00978*** (0.00216)
Constant	0.181 (0.227)	0.109*** (0.0290)	0.280 (0.215)	0.00901 (0.0566)
Observations	122	261	110	171
R-squared	0.529	0.388	0.566	0.466
Number of countrycode	45	56	41	52

Note: Robust standard errors in parentheses; Significance levels: *** significant at 1 per cent; ** significant at 5 per cent; * significant at 10 per cent.

Table 1C.4 Estimations of the social unrest score, standardized variables

	(5)	(6)	(7)	(8)
Variable	Social unrest score	Social unrest score	Social unrest score	Social unrest score
Unemployment rate	0.819*** (0.189)	0.631*** (0.102)		
Real GDP growth	-0.0401 (0.0835)	-0.115*** (0.0303)	-0.0232 (0.0850)	0.0524 (0.0648)
Gini coefficient	-0.269 (0.491)		-0.544 (0.460)	
International food price	0.292*** (0.0757)	0.177*** (0.0332)	0.304*** (0.0722)	0.309*** (0.0487)
Real disposable income	-0.670 (0.908)	0.0711 (0.506)	-0.456 (0.879)	-0.568 (0.682)
Youth unemployment			0.775*** (0.205)	0.829*** (0.183)
Constant	0.536*** (0.160)	0.247*** (0.0239)	0.488** (0.196)	0.513*** (0.0807)
Observations	122	261	110	171
R-squared	0.529	0.388	0.566	0.466
Number of countrycode	45	56	41	52

Note: Robust standard errors in parentheses; Significance levels: *** significant at 1 per cent; ** significant at 5 per cent; * significant at 10 per cent.

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Making profits work for investment and jobs¹



Main findings

- Pre-crisis gains in growth were distributed unevenly: between 2000 and 2009, among 56 countries with available information (which account for roughly 90 per cent of world GDP), more than 83 per cent enjoyed an increase in the share of profits in GDP. However, the chapter shows that, while the profit share increased, productive investment as a percentage of GDP stagnated globally. This disconnect between growing profits and productive investment reflects three main factors.
- First, much of the increase in profits accrued to the financial sector. Between 2000 and 2007, in advanced economies, financial-sector profits grew by 13 per cent annually, compared with 6 per cent in the case of the non-financial sector, i.e. the real economy. In emerging and developing economies, the figures are around 85 per cent and 20 per cent, respectively. Financial-sector profits declined somewhat in 2008–09, but have since strongly recovered – both in absolute terms and vis-à-vis profits in the real economy.
- Second, in advanced economies, profits of non-financial corporations have increasingly been used to pay dividends and to invest in financial assets rather than to make productive investments. In 2009, more than 36 per cent of profits were distributed in terms of dividends, compared with less than 35 per cent in 2007 and less than 29 per cent in 2000. Moreover, total financial assets of non-financial firms in advanced economies increased from 81.2 per cent of GDP in 1995 to 132.2 per cent of GDP in 2007. Due to the financial crisis, there was a decline in 2008 and 2009, but 2010 data show that there is an upward trend in financial investment by non-financial corporations in advanced economies.

1. Excellent research assistance was provided by Elodie Dessors.

- The situation among non-financial corporations in emerging and developing countries is a stark departure from the practices in the advanced world. Dividend payouts – at roughly 19 per cent of profits – remained relatively stable in the pre-crisis period and even declined to 16.5 per cent at the onset of the crisis in 2008. However, as in advanced economies, investment in financial assets also increased from 54 per cent of GDP in 2000 to 87.4 in 2007.
- Third, more recently, productive investment in advanced economies has been hampered by uncertain demand prospects combined with tight credit conditions – affecting small and medium-sized enterprises (SMEs) disproportionately. In the European Union, the net percentage of banks reporting a tightening of lending standards has remained positive throughout 2011. In the United States, the net percentage of banks reporting tightening of lending standards increased in the third quarter of 2011 for SMEs.
- Ensuring a closer link between profits and productive investment is crucial for job creation. If private sector investment had grown at the same pace as GDP during the period 2000 to 2009, private sector employment in the advanced economies would have been higher by 5.8 million in 2009. Likewise, there exist significant productive investment opportunities in developing and emerging economies, with a major potential in terms of job prospects – notably in rural areas and agriculture, see Chapter 4.
- The last section of the chapter identifies reforms to improve the links between profits and productive investment. Moving ahead with this agenda, combined with action on the demand side (see Chapter 3), would boost investment and job prospects considerably thereby facilitating a sustainable exit from the global crisis.

Introduction

Productive investment is crucial for ensuring a sustainable exit from the global crisis. As noted in Chapter 1, investment is needed in advanced economies to facilitate the structural transition away from sectors where financial bubbles and debt-led growth have happened. In emerging and developing countries, the challenge is to rely less on exports to advanced economies and more on domestic and South-South sources of growth – a transition for which investment is also necessary. In addition, investment in agriculture would help alleviate food shortages – this issue is addressed in Chapter 4.

In general, profits are a key factor behind productive investment and section A examines broad trends in profits and investment around the world. It shows that there has been a growing disconnect between the two. Section B analyses the factors behind this disconnect with a view to improving employment outcomes. Section C discusses policy options of how to make profits work for investment and jobs.

Box 2.1 Definitions and other measurement considerations

National accounts provide a comprehensive and detailed record of the production, income and expenditure activities of an economy's economic agents, namely government, non-financial corporations, financial corporations, non-profit institutions and households.

Corporate accounts: The detailed activities of firms are grouped into two main sub-categories: financial corporations (units specializing in financial intermediation, such as banks and insurance companies) and non-financial corporations (including those corporations that are wholly or partially owned by the State, known as “public enterprises”). Corporate accounts exclude unincorporated enterprises, also referred to as individual entrepreneurs or “self-employed”, which are often too small to have complete sets of accounts and are thus grouped with the accounts of households (see also Chapter 3 for more details). Corporate accounts show principally: (i) how the income derived from production – the “gross value added” – is divided between the two factors of production (labour and capital); (ii) the amount by which this income is increased or reduced by “property income” or by various kinds of transfers; and, (iii) the extent of capital or investment acquired. All this information is valued at current prices. The principal components and definitions related to corporate accounts employed throughout this chapter include:

- *Gross operating surplus (GOS):* the portion of the income derived from production that is earned by the capital factor. It is the principal measure of firms' performance in terms of operating profits, although this measure differs from profits as calculated in companies' accounts. For the purposes of this chapter, and given that most countries do not provide information for the depreciation of capital, operating surplus or capital share is measured in gross terms rather than net.
- *Capital share:* the gross operating surplus as a percentage of gross value added, gross national income or GDP. For the purposes of this chapter, the capital share is measured as a percentage of gross domestic product so as to increase the sample of countries analysed – a number of countries do not report information on gross value added.
- *Property income:* includes interests, dividends, reinvested earnings on foreign direct investment, property income attributed to insurance policyholders and rent on land and sub-soil assets. Most of these are liable to appear both in corporations' uses (in which case the property income is “paid”) and in their resources (in which case the property income is said to be “received”, for example when corporations receive dividends on their holdings in other corporations).
- *Retained earnings:* the gross savings or undistributed income of corporations. It is the balancing item of the distribution of income account, also known as “gross disposable income”. This balancing item equates, in the case of corporations, to their gross saving because by definition corporations do not have final consumption expenditure.
- *Gross fixed capital formation (GFCF):* often called “investment”. It appears in the capital account and refers to the purchases of assets intended for use in the production of goods and services, such as machinery, vehicles, offices, industrial buildings and software (changes in inventories or constitution of stocks are not included in GFCF). Therefore, GFCF measures the total expenditures on products intended to be used for future production (the fixed capital).

Source: Lequiller and Blades, 2006.

A. Trends in income distribution and productive investment

Total income in an economy is shared between capital (profits accruing to firms) and labour (the share that returns to households in the form of wages – see Chapter 3 for more information regarding wage share trends and determinants).² As described in detail in box 2.1, the capital share – often referred to as profit share – is measured in this chapter as the gross operating surplus (GOS) of corporations as a percentage of GDP.³

Capital shares have increased faster than investment in the vast majority of countries...

Between 1995 and 2000, capital shares in both advanced and emerging economies remained relatively stable. However, since 2000, capital shares for both sets of economies increased: in advanced economies it grew by 1.5 full percentage points, from roughly 17 per cent in 2000 to 18.5 per cent in 2007 (figure 2.1).⁴ The growth in emerging and developing economies was even more pronounced – over the same period the capital share grew more than 4 percentage points to reach 27 per cent in 2007.⁵ In contrast, investment growth did not keep pace with profits: between 2000 and 2007 the global capital share increased by 2.5 percentage points, while investment grew only 0.4 percentage points. There were, however, important diverging trends by country grouping: among emerging and developing countries, investment as a share of GDP increased from 12.4 per cent in 2000 to 19.3 per cent in 2007, whereas investment growth in advanced economies stagnated. Since the onset of the crisis the capital share in emerging and developing countries has continued to rise, whereas in advanced economies it has fallen considerably – although there have been important compositional changes (see section B).

In terms of developments by country, the vast majority with available information – more than 83 per cent – experienced a shift in income towards capital between 2000 and 2009 (figure 2.2). The trend is particularly evident among emerging and developing countries (of which there are 26), with only Latvia and Serbia experiencing modest declines in the capital share. Consistent with the trends by country grouping, emerging and developing economies have the highest capital shares and experienced significant increases. For instance, Azerbaijan, Chile, Egypt, Iran and Venezuela have capital shares above 45 per cent and experienced

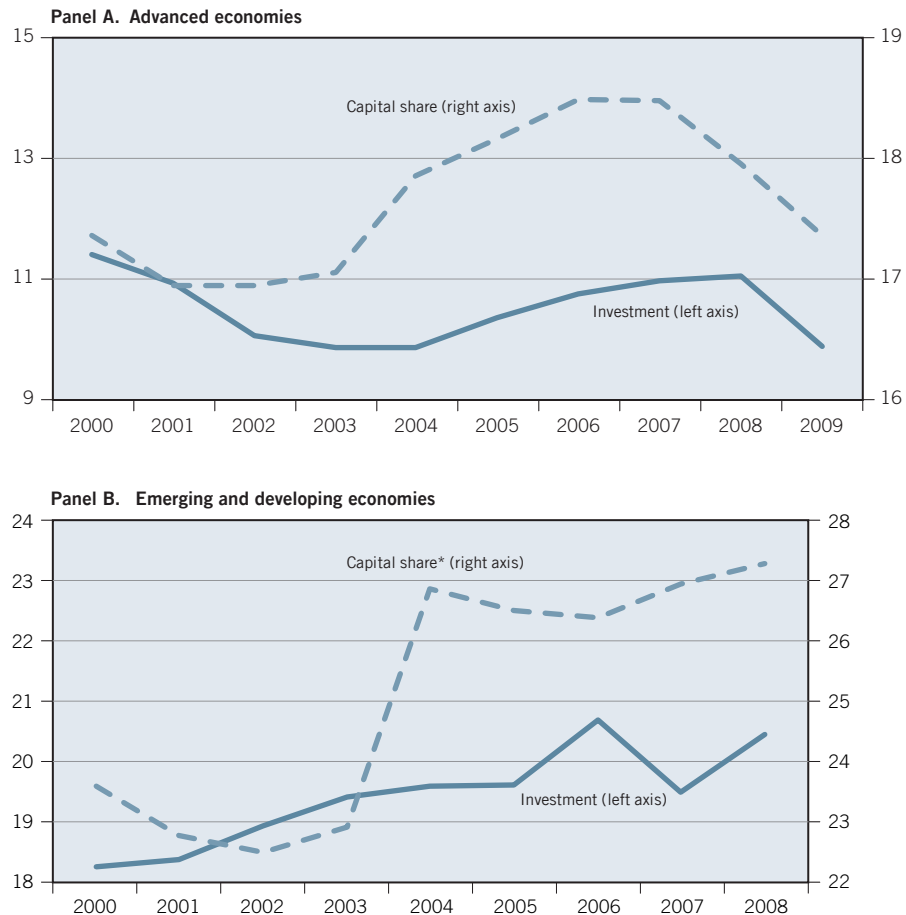
2. The production account includes a third item: net taxes on production and imports payable. In general, this item is a relatively small component of the production account. For instance, in 2007, it represented 2.7 per cent of GDP, on average, in the group of advanced economies analysed and 7 per cent in the emerging and developing country group.

3. As measured, the capital share excludes “unincorporated enterprises”, also referred to as “individual entrepreneurs” or “self-employed”. And while unincorporated sectors account for a sizeable portion of economic activity, especially in developing countries, on average, however, the corporate GOS accounts for close to 75 per cent of the total economy’s GOS in emerging and developing countries and for 62 per cent in the advanced group.

4. See also Ellis and Smith, 2007 and Vaona, 2011 for further information and evidence regarding capital share trends.

5. “Advanced economies” refers to high-income countries, i.e. countries with a gross national income (GNI) per capita of US\$ 12,276 or more. “Emerging” refers to upper-middle income countries (GNI between US\$ 3,976 and 12,275) and “developing” to low- and lower-middle income countries (GNI of 3,975 or less). These terms are used interchangeably (see appendix A of Chapter 1 for more details regarding country groupings).

Figure 2.1 Capital share and investment developments among non-financial firms (percentages of GDP)



*Given that averages correspond to weighted averages, the increase observed in the capital share of emerging and developing countries between 2003 and 2004 is explained by an important increase in the capital share of China – which increased by more than 7 percentage points between these two years.

Note: The sample analysed comprises 56 countries, of which 26 are emerging and developing countries and 30 are advanced economies. See appendix A of Chapter 1 for the list of countries analysed and their income groups.

Source: IILS calculations based on the OECD and UN National Accounts databases, national sources and IMF (2011).

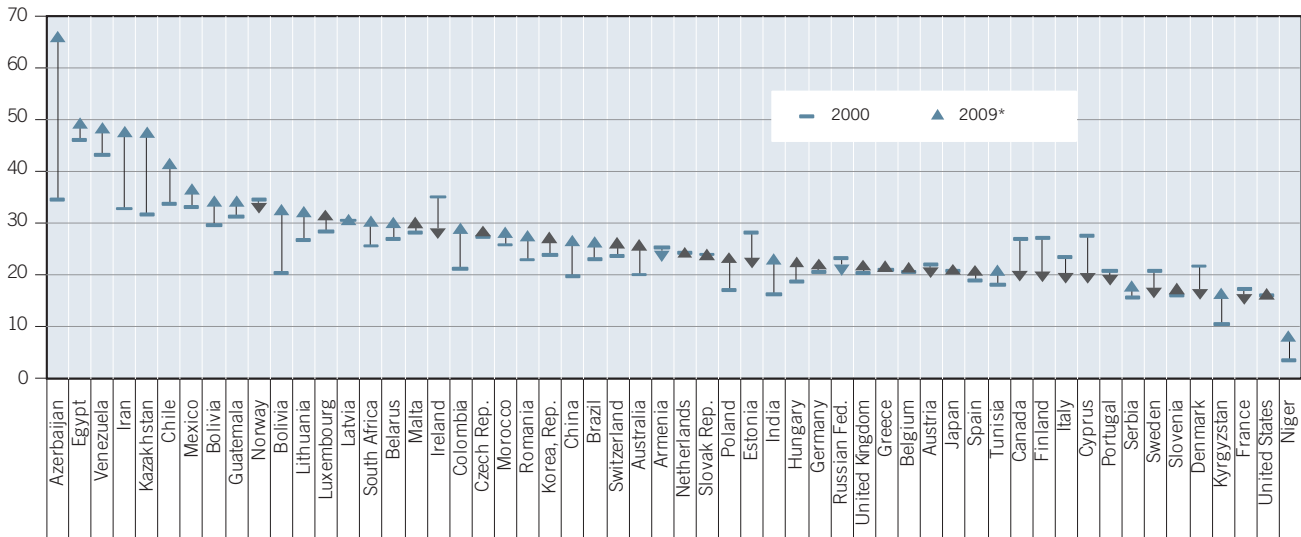
an average increase of 12 percentage points over the period 2000–2007 (15 percentage points if Egypt is excluded).

For advanced economies, Luxembourg and Norway have the highest capital shares (at more than a third of GDP), with each of Germany, Luxembourg and Poland gaining more than 5 percentage points on average. Only 7 of the 30 advanced economies (Canada, Cyprus, Denmark, Italy, Finland, Ireland and Spain) experienced declines in the capital share, most notably Cyprus (nearly 8 percentage points decline) and Ireland (3.3 percentage points).

... led by growing profits in the financial sector.

In terms of composition of the total capital share by type of corporations, the highest shares – due to their relative size in the economy – are concentrated in non-financial corporations. This is the case in both advanced and emerging and developing economies. For instance in 2007, the capital shares in non-financial

Figure 2.2 Capital share developments by country, 2000 to 2009 (percentage of GDP)

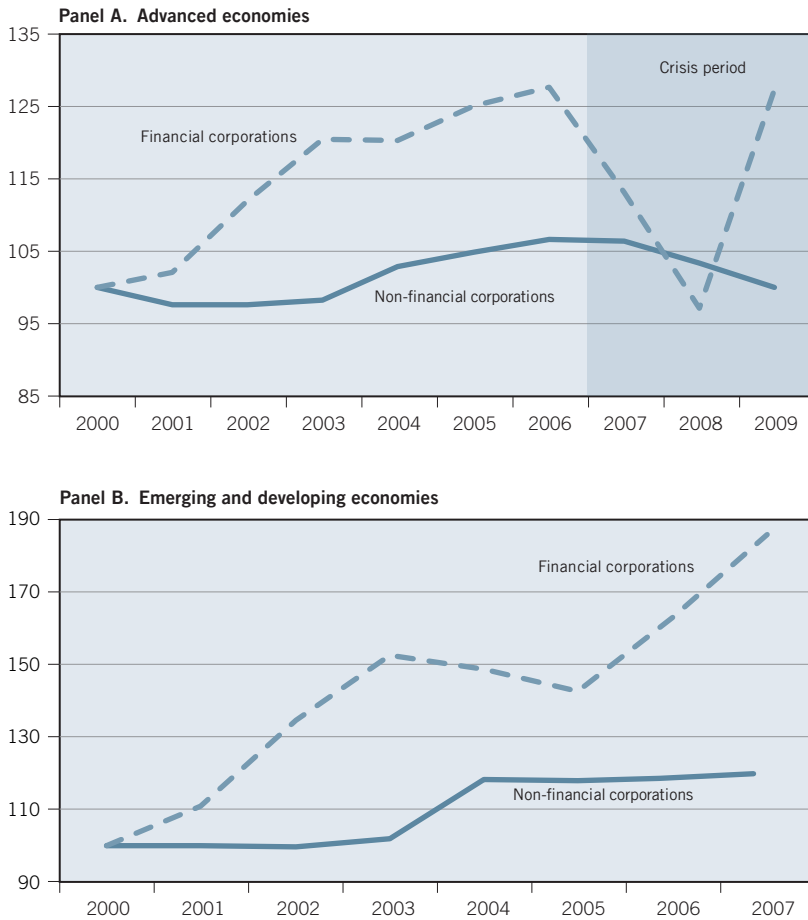


* Data for Cyprus, Japan, Malta, Switzerland, and for emerging and developing countries correspond to 2008 (with the exception of Colombia, Guatemala, Morocco and Romania, in which it corresponds to 2007; and of Brazil and Venezuela, in which it corresponds to 2006).

Note: Blue arrows refer to emerging and developing economies (grey to advanced economies).

Source: ILS calculations based on the OECD and UN National Accounts databases, national sources and IMF (2011).

Figure 2.3 Evolution of capital shares by type of corporations, 2000 to 2007/09 (2000=100)



Source: ILS calculations based on the OECD and UN National Accounts databases, national sources and IMF (2011).

corporations were 26 and 18 per cent in emerging/developing and advanced economies, respectively, compared with less than 5 per cent for financial firms. However, in both sets of economies, the rate of growth within the financial sector between 2000 and 2007 has outpaced growth in the non-financial sector (figure 2.3, panels A and B). This is especially the case in emerging and developing economies, where the capital share among financial firms grew by more than 85 per cent over this period, compared with 20 per cent among the non-financial sector. The same trend is true for the advanced group, although the difference in the growth rates is less marked.

The onset of the crisis has brought a dramatic shift in the trend and composition of capital shares in advanced economies. In 2007, with the collapse of Lehman Brothers, capital shares began to fall across sectors – with the decline being particularly acute among financial corporations. In fact, in 2008 the capital share among financial corporations fell by more than 25 per cent, erasing all of the gains of the past seven years. Yet, this fall of financial corporations was short-lived and in 2009 capital shares had already returned to levels similar to 2007. On the other hand, the decline in the non-financial sector has been much more gradual, but capital shares for this group – which account for 87 per cent of employment in advanced economies – continue to decline. This reflects the paradox that the impact of the global economic crisis of 2007–08 on the financial sector was short-lived initially – despite it being at the very origin of the downturn. Moreover, as demonstrated in Chapter 1, there are renewed concerns regarding the financial system, notably in Europe, where in some instances private sector investment is hampered by credit constraints (see section B).

Similar trends are present among a select few emerging and developing economies, i.e. Chile, Mexico and South Africa. For instance, in the period 2007 to 2009, the non-financial corporate sector was more deeply affected in these countries (a decline of 1.4 per cent in capital share) than the financial corporate sector (relatively unchanged capital share).

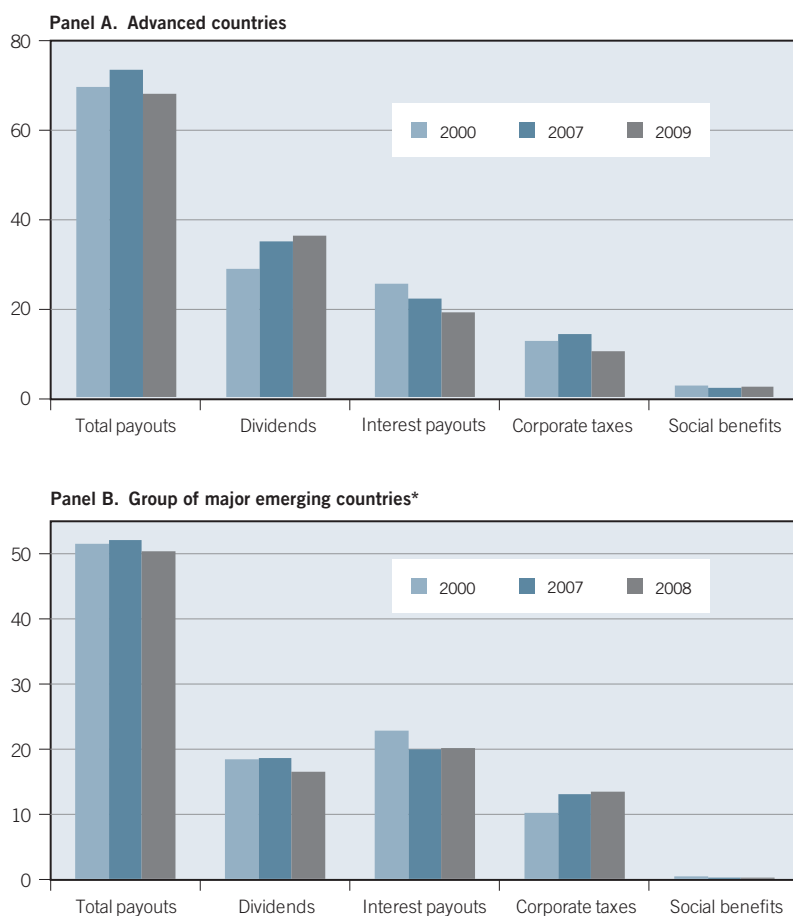
The remainder of this chapter focuses on the manner in which the higher profit shares were disbursed. In particular, section B assesses whether there has been increased recourse to corporate payouts in the form of dividends and other payouts, including an analysis of changes in income from sources other than operations and retained earnings. This includes examining the extent to which any change in resource allocation has translated into more investment, paying particular attention to various investment types. The final section discusses a number of policy considerations in light of the evidence presented.

B. Profits and productive investment of non-financial firms: Causes of a growing disconnect

First, the portion of profits distributed as dividends has grown significantly in advanced economies ...

During the period that preceded the crisis, part of the increase in capital shares in the advanced country group reflected a redistribution towards increased dividend payments (figure 2.4, panel A). In these countries, on average, the share of dividends in GOS (dividend payout ratio) rose by 6 percentage points, reaching close to 35 per cent of GOS in 2007. During that period, dividends in advanced

Figure 2.4 Payouts of non-financial corporations by type, 2000 to 2008/09 (percentages of GOS)



* The group of major emerging countries includes Brazil, Chile, China, Mexico and South Africa.

Source: ILS calculations based on the OECD and UN National Accounts databases and national sources.

economies more than doubled.⁶ Even with the onset of the crisis, non-financial firms in advanced economies continued to pay out substantial dividends. For instance, only in 2009 did actual dividends decline; however, as they fell less than GOS, the dividend payout ratio actually increased to 36.2 per cent in 2009.⁷

... but remained constant in emerging economies for which data exist, such as Brazil, China and South Africa.

In contrast, the dividend payout ratio among major emerging economies has remained relatively stable since the early 2000s, at close to 19 per cent of GOS (figure 2.4, panel B) – which is well below the dividend payout ratio in advanced

6. Dividends in advanced economies grew by 10 per cent per annum on average, compared with an 18 per cent average annual rate in a select group of major emerging economies.

7. Interestingly, however, firms decided to keep dividend payments in line with stock prices – raising the question of the financial market’s influence over the distribution of profits. Indeed, between 2007 and 2009, dividend yields (ratio of dividend to stock price) in both advanced and emerging countries remained stable (excluding an increase in 2008, which was likely due to the rapid decline in stock prices). This indicates that firms are probably more concerned about keeping dividends constant in relation to stock prices rather than adjusting dividend payouts due to fluctuations in earnings.

economies. Available information suggests that the dividend payout ratio has also remained broadly unchanged since the start of the global crisis.

With respect to the composition of other payouts, interest payments as a share of GOS fell in both groups of economies – as a result the ratio of interest to dividend payments fell after 2000. Moreover, in advanced economies, the ratio continued its downward path even during the crisis – from 71.5 per cent in 2007 to 63.7 per cent in 2009.⁸ The overall decrease in the growth of interest payments partially reflects falling nominal interest rates during the pre-crisis period 2000 to 2007. Indeed, close to 86 per cent of the countries analysed saw their nominal lending interest rates decrease during the pre-crisis period – by close to 1 percentage point in the advanced group and by 3.8 percentage points in the select group of emerging countries. This is even more evident in the advanced group, in which interest payments even declined between 2000 and 2004, reflecting falling interest rates (close to 3 percentage points over the period) and a process of deleveraging being undertaken among many non-financial firms. Leverage ratios for non-financial businesses – measured as debt to book equity⁹ – were stable or declining in most countries in the years that preceded the crisis,¹⁰ mostly thanks to growing profits and booming equity markets.

The results have been that, first, the portion of profits available for investment, so-called retained earnings, fell in advanced economies and increased in emerging and developing countries ...

Among non-financial corporations, other income represents a significant portion of GOS – and in some cases this has risen significantly since 2000. In particular, in 2007, property income and other transfers accounted for roughly 32 per cent of GOS in advanced economies, compared with 28 per cent in 2000 (figure 2.5, panel A). However, the increase in other income was not enough to offset the large increase in dividend payments as discussed above. As a result, retained earnings as a share of GOS fell between 2000 and 2007 (figure 2.5, panel B).

In contrast, in the group of emerging and developing countries – despite increases in overall payouts among non-financial corporations – retained earnings managed to grow faster than GOS, partly due to the fact that dividends in these countries remained relatively stable as a share of profits. The result was an improvement in retained earnings during the period analysed.

... and second, retained earnings of non-financial firms are less and less used to invest in the real economy in all country groups ...

Between 2000 and 2007, productive investment as a share of total resources received decreased in nearly all regions, with the exception of developing countries (figure 2.6).¹¹ There were even declines among major emerging economies, such as

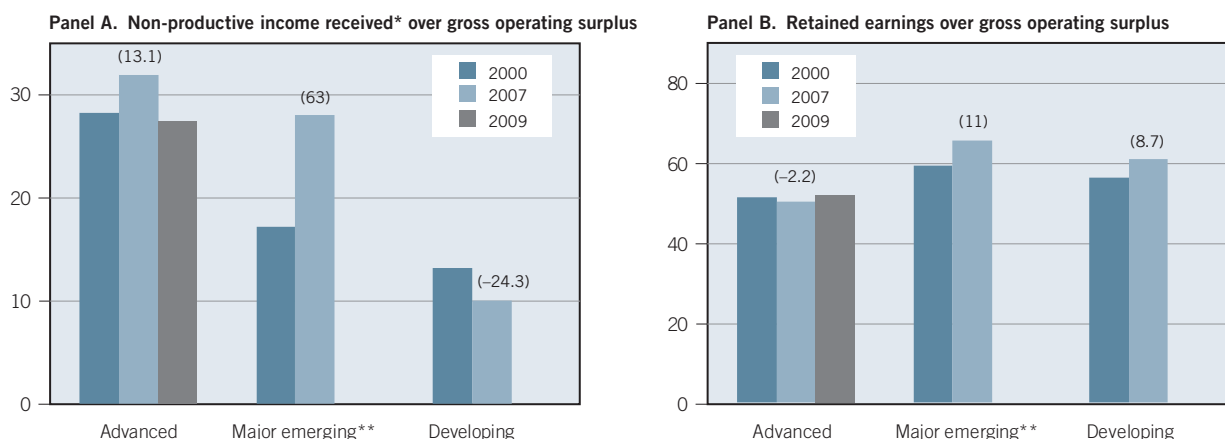
8. Only advanced countries have available national account information for 2009.

9. This ratio is available only for a number of advanced economies, namely: Canada, France, Germany, Italy, Japan, Republic of Korea, Spain, Switzerland, United Kingdom and the United States (Roxburgh et al., 2010).

10. Two exceptions stand out of this deleveraging trend among non-financial businesses, the commercial real estate sector and companies bought through leveraged buyouts (Roxburgh et al., 2010).

11. In 31 out of 50 countries with available information, productive investment as a share of total resources received decreased.

Figure 2.5 Growth of the share of non-productive income received* and retained earnings over gross operating surplus in non-financial corporations, 2000 to 2007/09 (percentages)



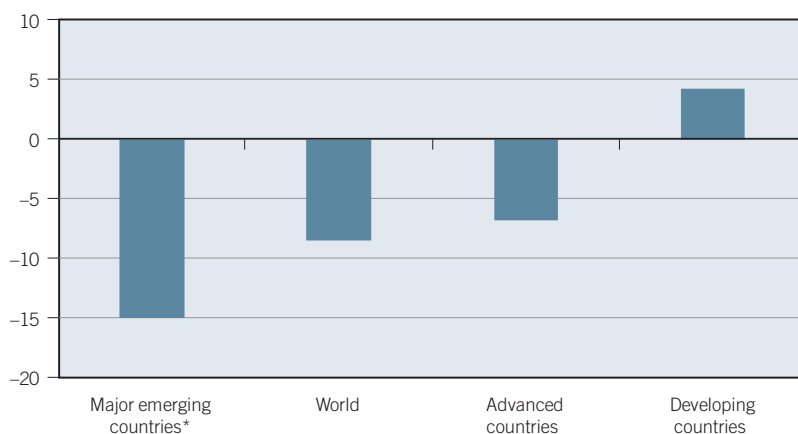
Note: Values in parentheses show the change in per cent over the period 2000 to 2007.

*Non-productive income received corresponds to all resources received other than gross operating surplus. These include: property income received, other current transfers received and social contributions and benefits received.

**The group of major emerging countries comprises Brazil, Chile, China, Mexico and South Africa.

Source: ILS calculations based on the OECD and UN National Accounts databases and national sources.

Figure 2.6 Investment over total resources received for non-financial corporations, 2000 to 2007 (percentage point change)



Note: Total resources received are gross operating surplus, property income received, social contributions and benefits received and other current transfers received.

*The group of major emerging countries comprises Brazil, Chile, China, Mexico, Russian Federation and South Africa.

Source: ILS calculations based on the OECD and UN National Accounts databases and national sources.

China. In addition, in terms of the amount of total resources allocated towards investment, similar patterns emerge across country groupings, i.e. roughly 52 per cent of total resources in 2007 among major emerging economies, compared with 46.2 per cent for advanced countries and 44.2 per cent for developing countries.

Furthermore, the recent decline in investment in research and development (R&D) among advanced economies is a worrying sign. Conversely, developing and emerging economies showed positive signs in this regard – in fact, they quadrupled their R&D spending in a little over a decade preceding the 2008–09 crisis (see box 2.2).

Box 2.2 Research and development by the private sector

R&D is a forward-looking indicator of investment as it tends to raise the potential output in the medium to long term. Recent trends show that spending on R&D has stagnated among advanced economies, while it has increased fourfold among developing and emerging economies, mostly led by China.

Among advanced economies, R&D conducted by the private sector increased from 1.5 per cent of GDP in 1995 to 1.7 per cent of GDP in 2001. It then declined over the next few years, but later trended up, reaching 1.8 per cent of GDP in 2008. In contrast, developing and emerging economies saw a fourfold increase in private sector R&D in the same period. For example, it increased from 0.27 of GDP in 1995 to 0.9 per cent of GDP in 2008, led by the private sector in China.

The 2008–09 economic crisis deeply affected business expenditure on R&D worldwide, but the impact has been varied across sectors, countries and firms. For example, in the OECD area, the crisis seems to have particularly hit R&D expenditure in the information and communication technologies sector.

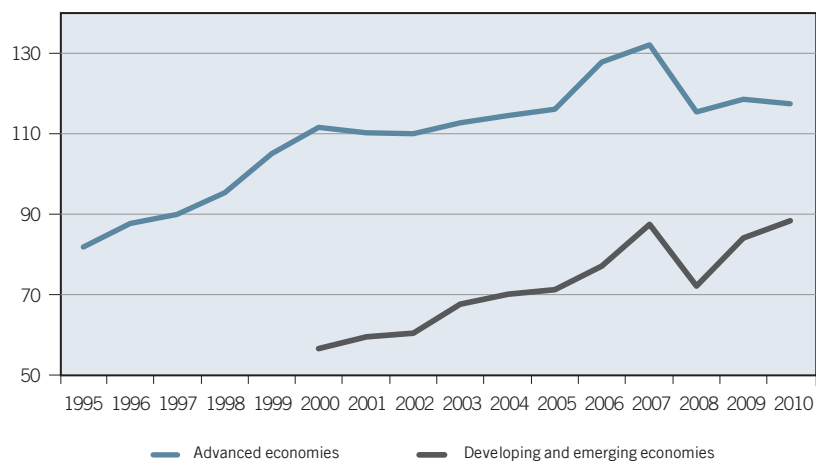
Source: Eurostat (2009) and OECD (2009).

... and more and more to invest in financial markets.

Non-financial firms have increasingly invested in financial assets at the expense of physical assets. This change in the investment behaviour of private businesses has been associated with a broader phenomenon known as “financialization”, where financial markets play an increasingly important role in the operation of the non-financial sector. This is particularly the case with firms in advanced economies, but in recent years, developing and emerging economies have started to exhibit similar trends. For example, the total financial assets of non-financial firms in advanced economies increased from 81.2 per cent of GDP in 1995 to 132.2 per cent of GDP in 2007, although it declined to 117.5 per cent of GDP in 2010 because of the financial and economic crisis (figure 2.7). Meanwhile, in the case of developing and emerging economies, the total financial assets of non-financial firms increased from 56.4 per cent of GDP in 2000 to 87.4 in 2007. It saw a slight decline in 2008 to 72 per cent of GDP, but in 2010 trended up to 88.3 per cent of GDP.

Empirical evidence shows that rising profitability in the financial sector has played an important role in drawing in investment from the non-financial sector towards the financial sector. For example, among advanced economies, the financial sector’s profitability doubled from 14.2 per cent in 1990 to 30.5 per cent in 1999. It then declined slightly, but resumed the upward trend in 2003, peaking at 36 per cent in 2006. Meanwhile, among developing and emerging economies, profitability of the financial sector declined sharply in the second half of the 1990s, which was mainly driven by the 1997 Asian financial crisis and other smaller crises in Latin American countries. But the profitability of the financial sector in developing and emerging countries started to increase in 2002, peaking at 32.1 per cent in 2007.

Figure 2.7 Total financial assets of non-financial firms as a share of GDP (percentages)



Note: Includes 28 advanced economies and 26 developing and emerging economies (weighted averages).

Source: ILS calculations based on the Economist Intelligence Unit.

Econometric evidence confirms the important role of financial policies and demand on promoting productive investment and employment in advanced economies.

An econometric analysis has been undertaken in order to carry out a closer investigation of the drivers of investment in non-financial corporations of advanced economies. The analysis, based on an extended version of the pecking order theory,¹² underlines the role of dividend policies and demand factors as follows:¹³

- A 1 per cent increase in the growth rate of dividends paid is associated with a 0.12 per cent decrease in the investment level. This result is in line with economic theory – the pecking order theory – suggesting that firms facing relatively costly external financing will first seek internal funds for investment needs. Under these circumstances, if dividends grow faster than profits, a firm’s ability to fund its own future investment is affected.
- The capacity utilization rate – calculated as the ratio of actual output over potential output – has a strong and significant positive effect on investment: a 1 per cent increase in the capacity utilization growth rate will translate into a 1.24 per cent increase in GFCF. This is consistent with the importance of demand to evaluate the profitability of new investment.

12. This theory asserts that a firm’s investment decisions are linked directly to its available internal funds and therefore the investment equation is specified by those variables that have a direct impact on the firm’s cash flow. See Fazzari et al. (1988) and Vogt (1994).

13. See appendix A for the exact specifications of the investment equation and Escudero and López (forthcoming) for a more detailed analysis of the theoretical framework from where the equations were derived and the interpretations of the results.

- Accelerated depreciation tax allowances have a positive relationship to investment and therefore have the potential for incentivizing investment.¹⁴

Based on these relationships, two scenarios were simulated to illustrate: (i) the potential impact that fostering investment growth would have on employment creation; and (ii) the potential impact that shifting resources, specifically, from dividends to investment would have on employment creation.

The first finding that arises from the model is that investment growth has a strong and positive effect on employment creation. In fact, a 1 percentage point increase in the investment growth rate would produce a 0.12 percentage point increase in employment growth. As such, the promotion of investment growth – through improved credit conditions for SMEs, for example – would yield significant gains in terms of jobs. More specifically, the simulation shows that if private sector investment had grown at the same pace as GDP during the period 2000 to 2009, private sector employment in the advanced economies would have been higher by 5.8 million in 2009 – of which roughly two-thirds is accounted for by SMEs.

The second finding reveals that the growth of dividend payouts has a significant negative relationship with employment, since it reduces a firm's capacity to invest. The model shows that a 1 percentage point increase in the growth rate of dividends would reduce employment growth by 0.013 percentage points. This means that if non-financial corporations had kept the dividend payout ratio constant – dividends growing at the same rate as GOS – private sector employment in advanced economies in 2009 would have been higher by 1.6 million.

C. Policy considerations

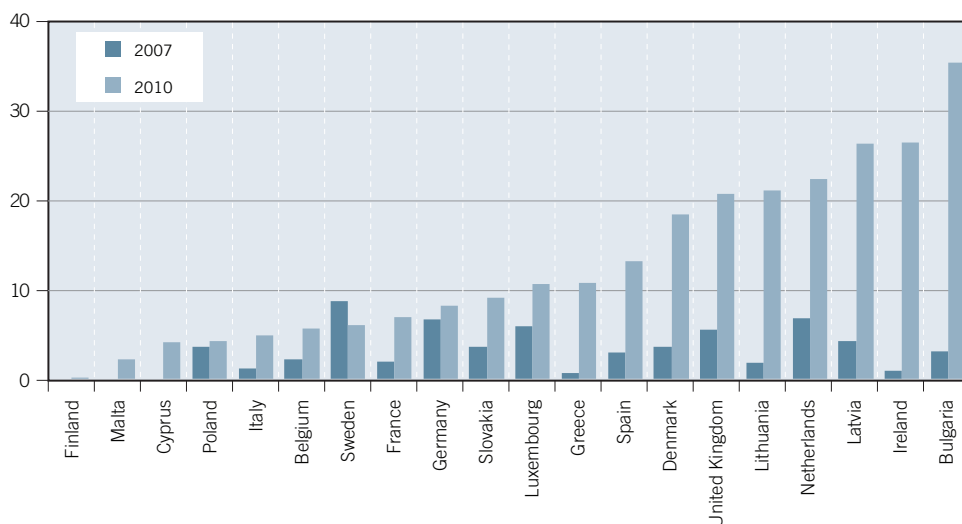
Against the backdrop of slowing employment growth and relatively unchanged investment practices, considerable – and urgent – action is needed to support job creation by prioritizing investments over payouts. Over the medium term, efforts will be needed to address a number of underlying structural issues, notably issues related to corporate governance as well as the distribution of gains and investment practices. In the near term, however, stable and sustained job creation will rely on ensuring that resources are made available to SMEs who continue to face liquidity constraints as financial markets, especially in Europe, enter a new crisis phase.

Employment creation will rely on incentivizing investment and supporting SMEs ...

Given the importance of investment in encouraging employment creation, it will be important to consider immediate measures to spur investment in the short term while also addressing structural issues related to the trend of declining investment, notably in advanced economies. First, credit conditions have deteriorated for SMEs since early 2011. For example, in the United States, the net percentage of banks reporting a tightening of lending standards for SMEs increased in the most recent quarter (Q3 2011). In addition, when firms in the European Union were asked about the most pressing problem they faced between September 2010 and

14. However, in the estimated model, the level of significance of this variable was not sufficiently high, most likely due to the technical and organizational delays in translating the allowance for depreciation into investment.

Figure 2.8 Rate of unsuccessful loan applications by small- and medium-sized enterprises (percentage of total loan applications)



Note: Only banks are included; no other credit institutions are taken into account.

Source: ILS calculations based on Eurostat.

February 2011, one-fifth of SMEs reported a lack of adequate access to finance. In fact, the rate of unsuccessful loan applications increased between 2007 and 2010 in 19 of the 20 European economies for which data are available (figure 2.8).¹⁵

Given the current climate of economic uncertainty, causing depressed demand and a difficult credit environment, countries need to address the following pressing issues:

- *Support access to credit among SMEs, thus investment and jobs:* Measures to support SMEs could include: (i) the development of credit mediators to assess credit requests denied to SMEs by banks (as exist in northern Italy); (ii) the introduction of credit guarantees, such that part of the loan is backed/guaranteed by government support (as in Brazil and Germany); (iii) the provision of liquidity earmarked for SMEs directly to banks. For instance, in the European Union, the budget for special financial instruments for SMEs is only just over EUR 1 billion, which is intended to increase access to funding for 300,000 to 400,000 SMEs by 2013. This figure is insignificant when considering that there are nearly 20 million SMEs in the EU. As such, much more effort is needed in this area, with a focus on severely-hit countries such as Greece.
- *Faster repair of the financial system:* In advanced economies, over 30 per cent of banks – representing nearly 20 per cent of bank assets – do not meet newly introduced capital requirements. This raises systemic risks and aggravates the credit crunch, affecting SMEs disproportionately. The weak tail of banks needs to be consolidated through strong government involvement.

15. Data are based on a survey covering 25,000 SMEs across the European Union and were released in connection with the “European SME week 2011”, which took place on 3–9 October in 37 European countries. For more details see: http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/4-03102011-AP/EN/4-03102011-AP-EN.PDF.

Second, as this chapter has shown, private sector investment has become a casualty of financial sector excesses, particularly in advanced economies. Going forward, it is important to focus on incentivizing productive investments that create sustainable jobs for the future, particularly through the following policies:

- *Accelerated depreciation*: One of the policy tools immediately available is accelerated depreciation, which is commonly used to incentivize the purchase of fixed assets such as plant and equipment. Accelerated depreciation allows firms to write off the costs of assets from their taxable income more quickly and at a higher rate. Moreover, it lowers the price for the acquisition of new capital, hence encouraging more investment in equipment and machinery.¹⁶
- *Incentivizing new growth sectors with tax credits and exemptions*: Policy options include tax credits for R&D, ICT-related incentives and other country-specific exemptions and tax credits. Indeed, several countries have taken action in these areas to enhance investment and promote job creation, such as Brazil and Chile.

... and effective corporate governance ...

As illustrated by this chapter, non-financial firms are increasingly exposed to and reliant on capital market developments, and corporate interests are often more aligned with those of financiers than with the real economy. As a direct consequence, the share of profits dedicated to financing internal growth is reduced and firms are constrained by banks (Aglietta and Breton, 2001). Furthermore, non-financial firms have become more like financial companies, with a spectrum of financial services and financial investments, as shareholders increasingly demand higher dividends, leading to a decline in real investment (Milberg, 2007). Corporate governance reforms can play a decisive role in realigning the incentives of the financial sector with those of the real economy. There are numerous ways to achieve this, in particular the following:

- *Regulating executive pay*: Studies have shown that highly skewed executive pay has a detrimental impact on corporate earnings and productivity (Bebchuk and Grinstein, 2005). Furthermore, it has a depressing effect on firms' morale.¹⁷ In the light of these collateral effects of disproportional executive pay and bonuses, policies need to ensure that: (i) executives are rewarded less through equity incentives to ensure an optimal investment strategy (see the case of the United Kingdom in table 2.1)(Kim et al., 2011); (ii) bonuses are based on performance over three to five years (if compensation is based on shorter-term performance then there should be stringent clawback provisions;¹⁸ and, (iii) peer-benchmarking of executive pay – where companies benchmark their pay against that of a peer group based on corporate revenue, market capitalization and assets – could be promoted further and made more widely accepted.¹⁹

16. The potential effectiveness of accelerated depreciation depends nevertheless on the extent to which corporate income tax represents an obstacle to investment (Goode, 1955; Domar, 1953).

17. Peter Drucker has demonstrated, for instance, that the ratio of executives' pay to workers' pay can be no higher than 20:1 without company morale being damaged.

18. Based on the report by The Commission of Experts of the President of the UN General Assembly on Reform of the International Monetary and Financial System, headed by Joseph Stiglitz.

19. Regulation should ensure that peer groups are not composed solely of firms that pay their executives at above the average rate. See for example Cheng, 2011.

Table 2.1 Corporate governance reforms: Some country examples

Germany	German firms are required by law to have both a “supervisory board” and a “managerial board”. In companies made up of 2,000 employees, the so-called co-determination structure is imposed, whereby the supervisory board has to be constituted of equal numbers of shareholder-elected and employee-chosen members.
Republic of Korea	Following the 1997 financial crisis, corporate governance reforms and government-initiated corporate restructuring were implemented in the Republic of Korea. The overall aims of the reforms were to enhance the monitoring function of boards, improve the accountability of management and CEOs, protect (minority) shareholder rights and improve managerial transparency and information disclosure.
United Kingdom	In January 2010, the revised Remuneration Code came into force, which included the following: (i) at least 40 per cent (60 per cent in the case of particularly high amounts) of remuneration must be deferred, with a vesting period of not less than 3 to 5 years; (ii) all deferred remuneration is subject to reduction through a form of “performance adjustment” (in case of evidence of employee misbehaviour or material error); (iii) at least 50 per cent of any variable remuneration must be paid in the form of shares, and those shares cannot be sold or transferred for a certain period after vesting (designed to align incentives with the long-term interests of the firm); (iv) firms must not offer guaranteed bonuses unless they are “exceptional”; and (v) payments relating to the early termination of an employment contract must reflect performance achieved over time and must not reward failure.
United States	The Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) that was passed in 2010 requires shareholder “say-on-pay,” “say-when-on-pay” and “say on golden parachutes” votes. All three votes are non-binding, so the impact of a negative vote will be difficult to measure. The Dodd-Frank Act also eliminates broker discretionary voting on executive pay and bonuses matters, which will give even greater power to institutional shareholders and corporate governance activists.

Source: ILS based on national sources.

- *Improving oversight by boards of directors for corporations:* Boards of directors for private corporations need to do a better job of overseeing the investment and compensation practices of firms. Moreover, they need to ensure that the practices are in line with the medium- to long-term welfare of the organizations. For example by: (i) separating the roles of chief executive officer (CEO) and chairman within a corporate board of directors, to improve monitoring and increase the board’s independence from management; (ii) ensuring that independent directors make up at least one-third of the board, and that those directors have the relevant financial experience to staff key committees (such as the audit committee) and can have private meetings without the presence of executive management and controlling shareholders; and (iii) encouraging corporations to include social partners and employee representatives within their boards of directors, to provide a further push towards aligning the incentives of financial and non-financial corporations (see the example of Germany in table 2.1).

Box 2.3 Advantages of profit sharing

“Profit sharing refers to definite arrangements under which workers regularly receive, in addition to their wages and salaries, a share on some predetermined basis, in the profits of the undertaking, the sum allocated to workers varying with the level of profits”. This is the official definition adopted at an International Congress on Profit Sharing held in Paris in 1889 (Cynog-Jones, 1956).²⁰

Profit-sharing schemes aim to improve employees’ motivation with regards to their jobs so as to attain a greater involvement of workers in the company’s outcomes. A significant number of empirical studies have shown that profit-sharing schemes have a positive impact, increasing labour productivity and reducing monitoring costs, with mixed evidence pertaining to wage flexibility:

- Profit sharing is associated with increases in firms’ productivity (FitzRo and Kraft, 1987; Kruse, 1993). The reason for this is that such schemes are said to increase workers’ incentives, because an additional effort yields positive externalities.
- Moreover, profit sharing could reduce firms’ monitoring costs through the generation of peer pressure. Studies have shown that where there is a profit-sharing scheme, employees have an incentive to observe the actions of their peers because the behaviour of each employee has an impact on the output of the company and, therefore, on the earnings of the rest of the employees (Daneshfar et al., 2010; Kandel and Lazear, 1992).
- Profit sharing is also said to enhance wage flexibility and so makes it easier for firms to adjust their costs in response to changes in market conditions (Daneshfar et al., 2010).

... and a more equal distribution of the gains.

Other measures to ensure a fairer and more equitable distribution of gains can also lead to improved labour market conditions over the medium term. For instance, profit sharing – if well-designed – not only ensures a fairer distribution of income, but has been shown also to improve productivity and growth (box 2.3).

A number of countries have adopted profit sharing on a mandatory or voluntary basis:

- *United States*: Profit-sharing schemes, on a voluntary basis, take on several forms in the United States: (i) the cash plan, under which contributions are paid directly to employees in the form of cash or stock; (ii) the deferred plan, which works as a supplementary insurance plan, so the share that the company credits to the plan can be made effective at the retirement, disability, death, etc. of the employee; (iii) and the combination plan, under which the employee can defer all or part of the profit-sharing allocation as in the deferred plan or can use it in cash (Daneshfar et al., 2010).
- *France*: In 2009, 35 per cent of private sector companies with ten or more employees offered some kind of profit-sharing scheme to their employees – in comparison with an average of 14 per cent across Europe. Part of the

20. Note that the definition refers only to the profits of the undertaking not to equity (schemes which involve the sharing of equity are known as “employee share ownership schemes”) and as such profit sharing is not aimed at balancing the ownership of firms through the participation of employees.

explanation for this high rate lies in the fact that profit sharing is compulsory for firms with more than 50 employees and that schemes are given preferential tax treatment. Companies have to establish a deferred profit-sharing fund, from which employees can have access to an amount corresponding, at least, to the minimum established by law.²¹ In addition, companies that are not mandated to offer a profit-sharing scheme but which implement one on a voluntary basis receive the same tax-free investment benefits. There is evidence of profit-sharing schemes in France having significantly improved labour productivity (Cahuc and Dormont, 1997).

- *Latin America:* In Peru, for example, profit sharing is compulsory; the amount to be distributed ranges between 5 per cent and 20 per cent of profits, depending on the economic sector. Likewise, in Ecuador, profit sharing is supported by legislation. Ecuador's Work Charter establishes that employers have to distribute 15 per cent of their profits among their employees – 10 per cent of the profits should be distributed among all workers equally and the other 5 per cent has to be allocated depending on the number of dependants that each employee has (Banco Central de Ecuador, 2003). At the other end of the spectrum, in Paraguay, Colombia, Bolivia, El Salvador, Guatemala and Costa Rica, the distribution of profits among employees is voluntary.

To be effective, profit-sharing measures must be part of an overall wage-determination process. Otherwise, pro-cyclical measures of this nature run the risk of reducing employees' incomes in times of crisis, potentially intensifying income inequalities (Teulings and Hartog, 1998). Indeed, a comprehensive income-generation strategy for stimulating demand and consumer spending will be central to the recovery process – an issue taken up in greater detail in the following chapter.

21. This legal minimum is calculated using the formula: $((net\ fiscal\ benefits - 5\% \ of\ capital)/2) \times (wages / value\ added)$.

Appendix A

The dividends–investment–employment dynamic: An empirical analysis

This appendix explains how the investment and employment models were constructed and provides the quantitative basis for simulating the policy scenarios presented in section B. The analysis draws on a cross-sectional time-series econometric model based on a panel of 25 advanced economies²² during the period 1995 to 2009. The results of the exercise (levels of significance of variables) are presented in table 2A.2 and table 2A.3. For a more detailed explanation of the economic interpretations of these results, please refer to the body of section B.²³

The investment model

The theoretical starting point of the investment analysis presented in this chapter is an extended version of the pecking order model. This model asserts that investment decisions are linked directly to available internal funds (Fazzari et al., 1988; Vogt, 1994) and, as such, investment is influenced by cash flow component variables, such as gross operating surplus and dividends paid. In this chapter, this approach has been extended by adding a number of external variables specified in the standard approaches to investment theory – i.e. lending interest rate, stock market index, capacity utilization and consumption of fixed capital, etc. (see table 2A.1 for a description of the variables and sources used). The resulting investment equation is as follows:

$$\ln(gfcf_{it}) = \alpha_0 + \alpha_1 D\ln(div_{it}) + \alpha_2 \ln(lend_{it}) + \alpha_3 D\ln(stock_{it}) + \alpha_4 D\ln(cu_{it}) + \alpha_5 D\ln(kcons_{it}) + \alpha_6 D\ln(interest_{it}) + \alpha_7 D\ln(taxes_{it}) + \varepsilon_{it} \quad (1)$$

Where

gfcf represents investment (measured by gross fixed capital formation of non-financial corporations); *div* the dividends paid by non-financial corporations; *interest*, the interests paid by non-financial corporations; and *taxes* the corporate taxes paid. In terms of the external variables, *lend* corresponds to the lending interest rate as a measure of the cost of investment decisions – i.e. the price that companies need to pay for borrowed funds; *stock*, the stock market index, which measures the relative value of a group of stocks quoted in the main stock market of each country – this variable is used in this chapter as a proxy for the attractiveness of financial investment; *cu*, the capacity utilization – calculated as the ratio of actual value added of non-financial corporations over the potential value added; and *kcons*, the consumption of fixed capital as a measure of the depreciation of fixed capital. Moreover, the model uses the first difference *D* of the natural

22. The 25 advanced economies included in this analysis are: Australia, Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Japan, Republic of Korea, Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom and United States.

23. See Escudero and López (forthcoming) for a more detailed analysis of the theoretical considerations from which the equations were derived and for the interpretations of the results.

logarithms (\ln) of variables to ensure that variables are stationary and facilitate the interpretation of the coefficients.

Table 2A.2 shows that all coefficients are highly significant with the exception of consumption of fixed capital.

The employment model

To illustrate the effects that incentivizing investment policies could have on employment creation, a standard labour demand model – based on the assumption that firms make decisions following income maximization objectives²⁴ – has been estimated. The model assumes that:

$$G(\text{employment}_{it}) = \beta_0 + \beta_1 G(\text{lcost}_{it}) + \beta_2 G(\text{gva}_{it}) + \beta_3 G(\text{cu}_{it}) + \beta_4 G(\text{gfcf}_{it}) + e_{it} \quad (2)$$

Where

employment corresponds to the dependent employment of the private sector; *lcost*, the unit labour cost; *gva*, the non-financial corporate gross value added; *cu*, the capacity utilization; and *gfcf*, investment as measured by gross fixed capital formation. Moreover, *G* denotes that variables are expressed in annual growth rates.

With the aim of investigating the impacts that changes in specific investment components have on employment growth, equations (1) and (2) were combined and estimated through a semi-simultaneous equation model, controlled for first-order autocorrelation:²⁵

$$G(\text{employment}_{it}) = \delta_0 + \delta_1 G(\text{lcost}_{it}) + \delta_2 G(\text{output}_{it}) + \delta_3 G(\text{cu}_{it}) + \delta_4 G(\text{div}_{it}) + \delta_5 G(\text{stock}_{it}) + v_{it} \quad (3)$$

Table 2A.3 shows that all coefficients are highly significant.

24. For example, Layard and Nickell (1986).

25. This extended employment equation does not include some of the variables included in the investment model described in equation (1). Indeed, the lending interest rate, consumption of fixed capital, interest paid and corporate taxes were excluded from equation (3) because the level of significance of these variables was not sufficiently high to be meaningful for the model. Furthermore, gross value added was substituted for the output of non-financial corporation in this equation, because the latter variable yielded better goodness-of-fit of the estimated model.

Table 2A.1 Definitions and sources of variables used in the regression analysis

Variable	Definition	Source
Investment	Gross fixed capital formation of non-financial corporations	OECD.Stat
Dividends	Distributed income of non-financial corporations	OECD.Stat
Interest rate	Lending interest rate	Economic Intelligence Unit
Stock market	Stock market index	Economic Intelligence Unit
Capacity utilization	Ratio of actual gross value added of non-financial corporations to potential gross value added*	IILS estimations based on OECD.Stat
Consumption of capital	Consumption of fixed capital of non-financial corporations	OECD.Stat
Interests paid	Interests paid by non-financial corporations	OECD.Stat
Corporate taxes	Current taxes on income and wealth paid by non-financial corporations	OECD.Stat
Employment	Dependent employment of the private sector	OECD.Stat
Unit labour costs	Ratio of the compensation of employees to private sector dependent employment	OECD.Stat
GVA	Gross value added of non-financial corporations	OECD.Stat
Output	Output of non-financial corporations	OECD.Stat

* The potential gross value added was calculated by applying the Hodrick and Prescott (1997) filter to the actual gross value added.

Table 2A.2 The investment model: Regression results

	Gross fixed capital formation (<i>Ingfcf</i>)	
	Random effects	Fixed effects
Dividends paid (<i>DIndiv</i>)	-0.11 (-1.91)*	-0.12 (-1.92)*
Lending interest rate (<i>Inlend</i>)	-0.49 (-8.73)**	-0.49 (-8.67)**
Stock market index (<i>Dlnstock</i>)	-0.21 (-8.18)**	-0.21 (-8.19)**
Capacity utilization (<i>DIncu</i>)	1.24 (2.54)*	1.24 (2.55)*
Consumption of fixed capital (<i>Dlnkcons</i>)	0.12 (0.26)	0.12 (0.27)
Interest paid (<i>Dlninterest</i>)	0.31 (5.39)**	0.31 (5.39)**
Corporate taxes (<i>DIntaxes</i>)	-0.18 (-2.41)*	-0.18 (-2.41)*
Constant	12.60 (25.55)**	12.54 (119.31)**

Notes: Absolute value of z-statistics in parentheses. Significance levels: *significant at 5 per cent; **significant at 1 per cent.

Variables were logged and included in the model in first differences (with the exception of *Inlend*). All variables were tested for non-stationarity through the augmented Dickey–Fuller test and the Phillips–Perron test. In all cases the tests rejected the null hypotheses of non-stationarity at 1 and 5 per cent levels.

The model was estimated using random effects and fixed effects, but the former model was chosen following the results in favour of this type of estimator by the Hausman test. With both models, results remain highly significant (with the exception of consumption of fixed capital) with little or no variation in the estimated coefficients and z-statistics, which demonstrates the robustness of the model.

The model was controlled for multicollinearity following the VIF regress command and the collin test. Results from both tests show VIF values considerably lower than the rule of thumb of 10, implying that no further investigation is needed regarding this problem. Both cases also controlled for heteroskedasticity and autocorrelation.

Table 2A.3 The employment model: Regression results

	Growth rate of the private sector dependent employment (<i>Gemployment</i>)	
	Equation (2)	Equation (3)
Unit labour costs growth rate (<i>Glcost</i>)	-0.17 (-4.80)**	-0.27 (-6.94)**
Gross value added growth rate (<i>Ggva</i>)	-0.01 (-0.18)	
Gross fixed capital formation growth rate (<i>Ggfcf</i>)	0.11 (10.13)**	
Capacity of utilization growth rate (<i>Gcu</i>)	0.22 (7.18)**	0.10 (2.94)**
Output growth rate (<i>Goutput</i>)		0.27 (8.88)**
Dividends paid growth rate (<i>Gdiv</i>)		-0.01 (-2.80)**
Stock market index growth rate (<i>Gstock</i>)		-0.01 (-2.41)*
Constant	1.38 (8.92)**	1.02 (6.01)**

Notes: Absolute value of z-statistics in parentheses. Significance levels: *significant at 5 per cent; **significant at 1 per cent.

Variables included correspond to annual growth rates. All variables were tested for non-stationarity through the augmented Dickey–Fuller test and the Phillips–Perron test. In all cases the tests rejected the null hypotheses of non-stationarity at 1 and 5 per cent levels.

The estimation of equations (2) and (3) was done using GLS estimators to correct for groupwise heteroskedasticity (tested through the modified Wald statistic). The table shows that all coefficients are highly significant (with the exception of *gva* in equation 2).

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The labour share of income: Determinants and potential contribution to exiting the financial crisis¹



Main findings

- For several decades now, labour's share of income has lost ground to capital. The wage share – the share of domestic income that goes to labour – has declined in almost three quarters of the 69 countries for which data exist. The drop in the wage share is more pronounced in emerging and developing economies than in advanced ones. And the decline in the wage share has been much more significant for unskilled workers than for their skilled counterparts. Contrary to predictions that “wage moderation” would help create jobs, there are indications that the decline in the wage share has not been associated with lower unemployment.
- The decline in the wage share reflects global forces as well as institutional changes and labour market reforms. Increased economic integration, notably financial globalization, has been a major driver of falling wage shares in advanced economies. The decline in trade union density and in the coverage of collective bargaining, combined with growing competitive pressures on small firms, have tended to weaken the bargaining power of workers over income distribution. There is evidence that improved collective bargaining rights and

1. Excellent research assistance was provided by Paola Ballon, Federico Curci and Giorgio Presidente.

efforts to address informal employment have been effective in sustaining wage shares in some instances in Latin America.

- The chapter argues that arresting the decline in the wage share can help put the recovery from the global economic crisis on a more sustainable path. A comprehensive income-generating strategy would have expansionary effects on aggregate demand and employment, without aggravating fiscal deficits. Such a policy approach would need to take into account country circumstances. Yet, there is likely greater flexibility in applying it more forcefully in surplus countries, such as China, Germany, Japan and the Russian Federation, than in deficit countries. But beyond the crisis, more effective wage determination mechanisms are needed to promote more balanced and equitable growth.

Introduction

The wage share has been falling across most countries and regions for more than three decades – and the pace of this decline has accelerated in recent years. Indeed, as demonstrated in Chapter 2, a greater share of income has been allocated to capital in the most recent period of expansion. With that in mind, the purpose of this chapter is to shed light on the longer term trends of labour income developments.

In particular, section A examines the trends in wage shares across nearly 70 countries from the early 1970s to the late 2000s. It also discusses the impact of falling wage shares on the economy and on job creation. Section B identifies the main factors explaining changing wage shares, paying particular attention to the role of global factors, such as financial globalization, as well as changes in labour market institutions. The final section presents some policy conclusions.

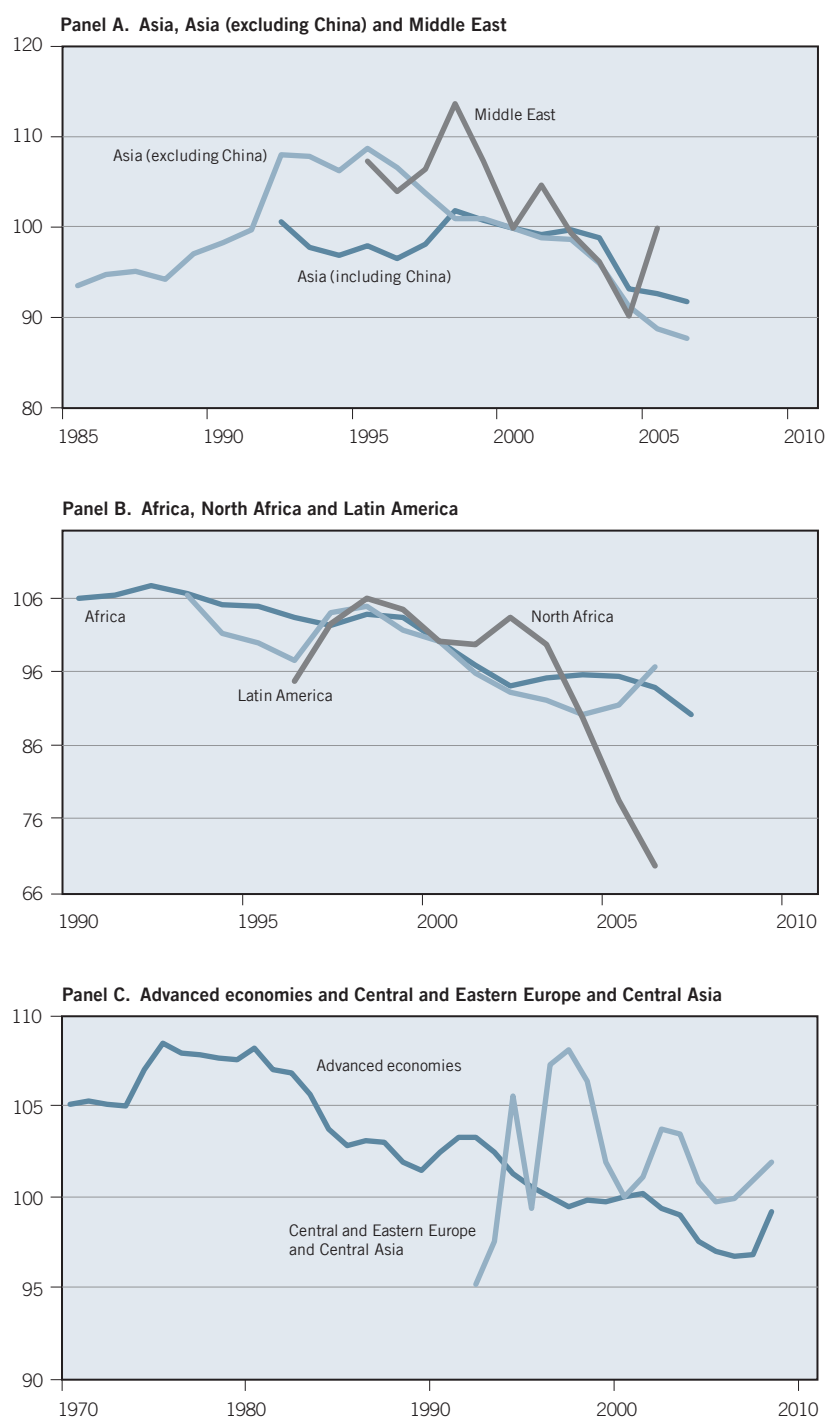
A. Wage shares: Trends and implications

The wage share has declined in the vast majority of countries...

Since the early 1990s, the wage share (see appendix A for definition) declined in nearly three-quarters of the 69 countries with available information. The decline is generally more pronounced in emerging and developing countries than in advanced ones (see figure 3.1):

- Since 1994 the wage share in Asia has declined by roughly 20 percentage points (figure 3.1, panel A). The pace of the decline accelerated in the past decade recent years, with the wage share falling more than 11 percentage points between 2002 and 2006. In China, the wage share declined by close to 10 percentage points since 2000.
- In African countries, the wage share has declined by 15 percentage points since 1990, with most of this decline – 10 percentage points – taking place since 2000 (figure 3.1, panel B). The decline is even more spectacular in North Africa, where the wage share fell by more than 30 percentage points since 2000.

Figure 3.1 Trends in wage shares (index=100 in 2000)



Note: The wage share is adjusted for changes in the incidence of self-employment when the information is available (see Appendices A and B for details). The regional averages shown in the figure are GDP-weighted averages, transformed into an index to facilitate the comparison of trends.

Source: ILS estimates (see appendices B and C).

- The decline in the wage share in Latin America is among the lowest for all the regions (figure 3.1, panel B). Since 1993, the wage share has only fallen 10 percentage points and, unlike other regions, where recent years have been characterized by an acceleration of the decline, the fall since 2000 has been limited to less than 4 percentage points. There has even been a modest upturn in the past few years.

- The wage share among advanced economies has been trending downward since 1975 (figure 3.1, panel C). The fall, however, has occurred at a much more moderate pace than among emerging and developing economies – falling roughly 9 percentage points since 1980.²
- The wage share in Central and Eastern European countries followed significant fluctuations in recent years (figure 3.1, panel C).

The empirical evidence presented is consistent with the findings of World of Work Report 2008 and the Global Wage Report 2010/11.³ Moreover, looking at France and the United States – two countries for which longer time series are available – confirms this downward adjustment of the wage share. In the United States, the wage share is now 4 percentage points below the level prevailing before the 1970s. The wage share in France has followed a similar pattern. The average wage share was 69 per cent over the 1950s and 1960s. Following a steep increase to 75 per cent in 1982, the decline that follows led to an over-adjustment of income distribution, with the average wage share dropping to 67 per cent over the 1990s and 2000s.⁴

... with the fall being particularly acute among low-skilled workers in advanced economies ...

The decline in the wage share is especially strong for low-skilled workers. In advanced economies for which data are available, the wage share among low-skilled workers fell by 12 percentage points between the early 1980s and 2005, while it increased by 7 percentage points for their high-skilled counterparts (figure 3.2).⁵

The reduction in the wage share for low-skilled workers is the result of both a volume effect and a price effect. With respect to the latter, the size of the unskilled population in advanced economies has declined. Indeed, figure 3.2 illustrates that the share of total hours worked by unskilled workers declined by 22 percentage points between 1981 and 2005. In 2005 unskilled work accounted for less than 20 per cent of total hours worked compared to 40 per cent in 1981. In contrast, the number of hours worked by high-skilled workers increased by 11 percentage points over the same period. It follows that the contribution of the declining wage share of unskilled workers to the overall decline in the wage share has – at least to some extent – been smoothed out by the relative decline in the incidence of unskilled labour.⁶

2. The trend in wage shares among advanced economies is impacted significantly by the correction for changes in the incidence of self-employment (see appendices A and B).

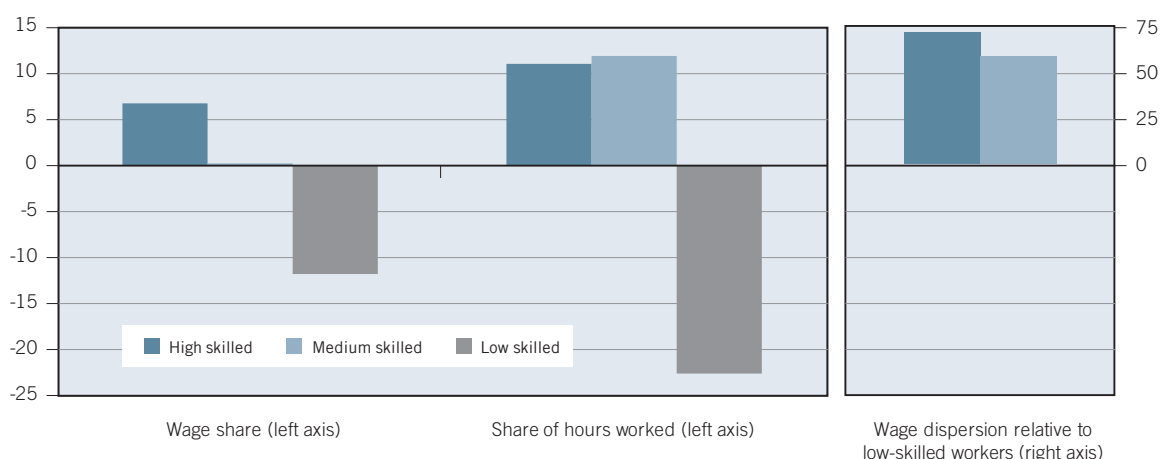
3. In some countries, the wage share recovered moderately in the immediate aftermath of the global crisis. This is not surprising given that the wage share is usually countercyclical, i.e. increasing in recessions and decreasing in recoveries. This reflects the relative speeds of adjustment of nominal wages and prices, the latter being more flexible than the former. The observed upward trend can also be explained by labour hoarding as certain firms – aided by government support – preferred to maintain employment levels in anticipation of a rebound (see ILO, 2010).

4. See Bureau of Economic Analysis (2011) for the United States and Picketty (2001) for France.

5. The diverging trends in wage shares by skill level are consistent with the findings of Jaumotte and Tytell (2007).

6. See also the methodologies developed by Solow (1958) and Young (2010) to test the effect of sectoral shifts on wage shares.

Figure 3.2 Wage shares, hours worked and wage dispersion by skill level, selected advanced economies (change between 1981 and 2005, percentage points)



Note: Wage dispersion for high-skilled (or medium-skilled) workers is defined as the ratio of high-skilled (or medium-skilled) wages to low-skilled wages. Data refer to the weighted average for ten countries (Austria, Belgium, Denmark, Finland, France, Italy, Netherlands, Spain, Sweden and United Kingdom).

Source: ILS estimates based on EU-KLEMS.

There has also been an important price effect, i.e. the earnings of high-skilled workers have increased significantly relative to earnings of low-skilled workers. In fact, the ratio high-skilled wages to low-skilled wages increased by 72 percentage points.

... as well as in the manufacturing sector.

Some authors have argued that the decline in the wage share reflects sectoral developments, notably a shift of economies towards services. Available evidence, however, does not lend support to these claims. In European Union countries, for examples, the wage share in the manufacturing sector declined by 10 percentage points – from 69 per cent to 59 per cent – between 1970 and 2007. The wage share in the service sector remained relatively unchanged over the same period, at around 49 per cent.

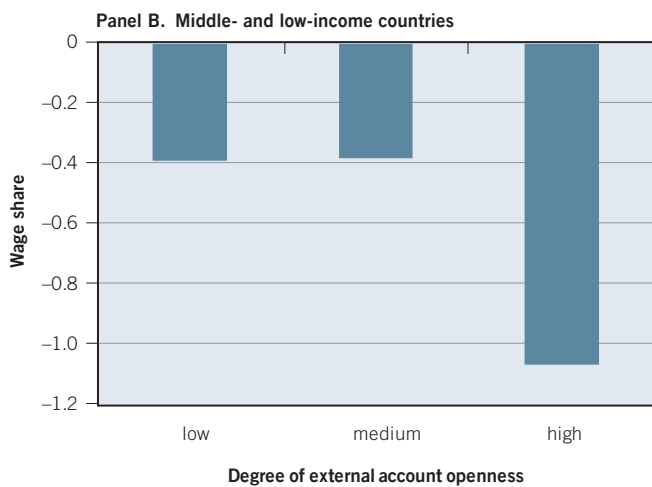
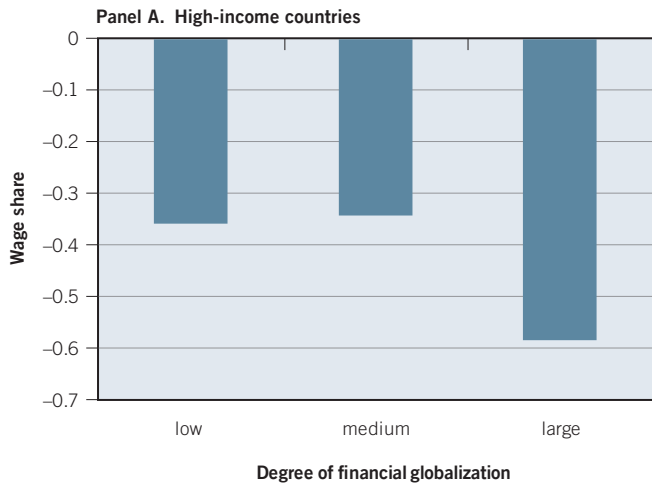
The contribution of sectoral wage share to the total wage share is a long-standing issue, which can be traced back to Kalecki (1938) and Solow (1958). Empirical tests conclude in most cases that when the wage share changes in a particular sector, the relative size of this sector in the total economy smoothes the impact on the aggregate wage share. In the United States, for instance, the drop in the wage share in the manufacturing sector is smoothed out by the relative decline of this sector in total value added (see Young, 2010). Similar results are observed for other countries and regions (ILO, 2010).

Arresting the trend decline in the wage share would support job recovery, especially in countries that have an external surplus.

Some observers have argued that the declining wage share was necessary – that the boost to profits would lift investment and, ultimately, raise employment.⁷

7. According to a former political leader “the profits of today are the investments of tomorrow and the investments of tomorrow make the employment of the day after tomorrow” (cited in Malinvaud, 1980).

Figure 3.3 Financialization and changes in the wage share, 1985 to 2005
(annual average growth, in per cent)



Note: The figure shows annual growth rate of wage share across three categories measuring the extent to which financialization has taken place. In high-income countries, financial globalization is measured as the sum of foreign assets and liabilities as a share of GDP and is taken from Lane and Milesi-Ferretti (2007). In medium- and low-income countries, financialization is measured as the degree of capital account openness (see Chinn and Ito, 2008).

Source: ILS estimates based upon national sources, OECD, ILO, IMF and UN.

However, looking at unemployment over the past three decades, it is not possible to discern any clear effect due to falling wage shares.

Moreover, there are arguments for arresting the decline in the wage share. There are generally two aggregate-demand typologies: (i) “wage-led”, when a higher wage share leads to an increase in aggregate demand through higher consumption of workers; and (ii) “profit-led”, when a lower wage share improves aggregate demand through higher profits and investment.

As Chapter 2 demonstrated, though, higher profit shares (lower wage shares) did not yield significant gains in investment. In fact, the main lesson from the literature is that the majority of countries are wage-led, including economic zones such as the euro area.⁸ In other words, wage restraint does not lead to higher economic growth. Importantly, wages constitute the main source of income underpinning private consumption and therefore the possibility for firms to make their earlier investments profitable. In this context, higher wages can also stimulate domestic demand and balance out sources of growth, especially in surplus countries.

8. See for instance Franke et al. 2006, Naastepad and Storm 2007, Hein and Vögel, 2008, Stockhammer et al 2009

B. Determinants of declining wage shares

The literature points to a number of factors behind falling wage shares, including global developments, such as financial market integration, as well as domestic factors, including minimum wage policies and changes in labour market institutions. Most of the available studies focus on advanced economies. The purpose of this section is to present the main findings of a novel empirical analysis of the determinants of falling wage shares in both advanced economies and emerging and developing countries. The analysis is presented in some detail in Appendix C.

Financialization has reduced the bargaining power of labour ...

Globalization has increased the possibilities for investment in physical or financial capital and has widened the geographical location of these investments at home or abroad. The result has been an erosion of the bargaining power of workers. In high-income countries, corporate governance has added upward pressure on firms distributing dividends to shareholders — as discussed in Chapter 2. Indeed, the relationship between financial globalization and the wage share is consistently negative across the majority of high-income countries (figure 3.3, panel A). Moreover, in a panel regression controlling for competing factors, the wage share is negatively correlated with financial globalization and is stable and consistent across different specifications (table 3C.2, Appendix C).

Similarly, in middle- and low-income countries, a higher degree of capital account deregulation is associated with a larger decline in the wage share (figure 3.3, panel B).⁹ In particular, the regression estimates that capital account openness and currency devaluation are significantly associated with a decline in the wage share in both Eastern Europe and Latin America (table 3C.4, Appendix C). One explanation behind this result is that, in emerging and developing economies, significant swings in capital flows have generated boom–bust cycles, in turn affecting wage shares. Diwan (2001) shows that currency crises are associated with sharp declines in the wage share, pointing that the cost of financial instability has fallen disproportionately on labour.

... as have other external factors.

Trade openness has also improved the mobility of capital relative to labour.¹⁰ According to some authors, this may have placed downward pressure on wages in advanced economies due to the increased competition between high- and low-wage locations.¹¹ An empirical assessment of the role of trade shows that increased

9. These results are in line with existing studies, although the financial channel is not always tested explicitly, as in Jaumotte and Tytell (2007) or Bentolila and Saint-Paul (2003). By contrast, Harrison (2002) and Jayadev (2007) test the existence of a financial channel and find a negative impact on the wage share of capital account liberalization in both OECD and non-OECD countries. Stockhammer (2009) finds a negative link between income distribution and financial globalization in high-income countries.

10. The negative link between the wage share and trade integration has been tested numerous times for developed economies (see Jaumotte and Tytell, 2007) and for middle- and low-income countries (see Harrison, 2002).

11. Ebenstein et al. (2009) show, in line with existing studies, that longitudinal wage change due to trade competition is positive. In the United States, wage losses are found to be 2 to 4 per cent amongst workers leaving manufacturing and 4 to 11 per cent among workers also switching occupations.

trade openness has a small but statistically significant impact on the wage share in the 16 high-income countries for which data exist (see table 3C.2, Appendix C). Moreover, the negative link is consistent across various specifications and is more pronounced among low-skilled workers.

Regarding medium- and low-income countries, the evidence is more mixed. In middle-income countries, notably Eastern Europe, trade openness has a clear negative impact on the labour share of income (table 3C.4, Appendix C).¹² This result may be due to the fact that this group of countries has been competing increasingly with emerging economies in the manufacturing sector. Trade openness is also associated with a lower labour share in Asian countries, but only when China is included in the sample.¹³ Conversely, in the 12 Latin American countries in our database, the correlation is positive, but is not robust to the inclusion of labour market regulation.¹⁴

There is evidence that collective bargaining supports balanced income developments without affecting jobs ...

Labour market regulation is an important determinant of the labour share of income since it affects the bargaining power of workers. There is, however, a diverse range of measures for labour market regulation, each one capturing different channels of transmission.¹⁵ With this in mind, four measures of labour market regulation are tested: union density, labour taxes, replacement wages and employment protection legislation.¹⁶ The results indicate that at the aggregate level, union density and labour tax affect positively the labour share of income (table 3C.1, Appendix C). Both coefficients are significant and stable across various estimations.¹⁷ In contrast, the replacement wage has a negative coefficient, while employment protection has no effect on income distribution.

Labour market regulation affects the wage share through two channels: (i) a price effect (wages), and (ii) a quantity effect (employment). The overall impact on the labour share of income differs according to the direction and the sign of these two effects. With respect to the price effect, labour market regulation has a positive impact on the income share of labour, for instance by sustaining the income of low-skilled workers.¹⁸ The quantity effect associated with labour market regulation is less clear, however. In most New-Keynesian macroeconomic models, labour market regulation tends to raise the wage above the equilibrium value, producing steady-state unemployment.¹⁹ Certain labour market institutions are, however, likely to generate positive macroeconomic feedbacks. For instance, Challe and Ragot (2010) show that labour market regulation, in the form of unemployment

12. This analysis includes Belarus, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russian Federation and Ukraine.

13. Owing to data limitations, the analysis for the Asian region includes only five countries, namely Hong Kong (China), India, Philippines, Sri Lanka and Thailand.

14. This analysis includes Argentina, Brazil, Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Mexico, Nicaragua, Paraguay, Peru and Venezuela.

15. See Checchi and García-Peñalosa, 2010.

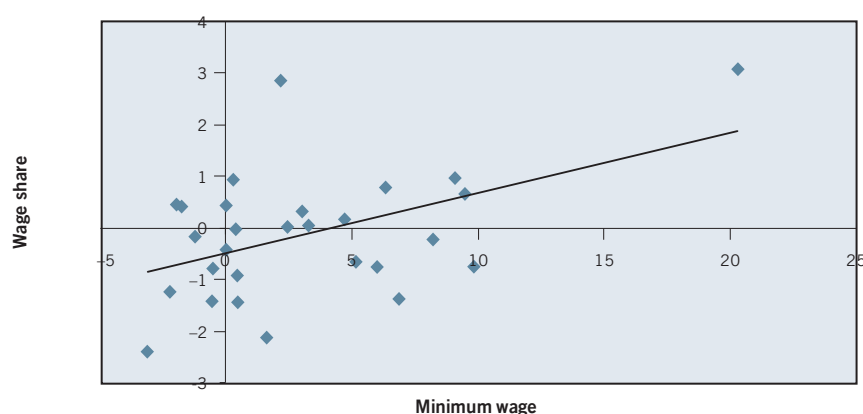
16. Since Bassanini and Duval (2006), there are six types of variable used as a proxy for labour market institutions: employment protection legislation, labour taxation, the presence and size of a minimum wage, unemployment benefits, union density coverage and the degree of centralization and coordination of wage bargaining.

17. The coefficients for union density and labour taxation are 0.029 and 0.123, respectively.

18. Checchi and García-Peñalosa (2008) refer to labour market regulations as a set of inequality minimizing institutions.

19. See Ravenna and Walsh, 2008.

Figure 3.4 Changes in minimum wages and wage shares in selected middle- and low-income countries, 1993 to 2005 (average annual growth rates in per cent)



Note: This graph shows the average annual growth rate of minimum wage and the average annual growth rate of the unadjusted labour share, over the period 1993 to 2005, for several emerging and developing countries (see Appendix C for the list of countries). The minimum wage is measured as the monthly minimum wage as a ratio of the average wage.

Source: ILS estimates (see Appendix C).

insurance, reduces the precautionary savings of households in recession and sustains aggregate demand.

With respect to skill level, union density still has a positive impact on the wage share of high-skilled and medium-skilled workers. The coefficients are very similar (0.029 and 0.035, respectively), which suggests that the effectiveness of trade unions is similar across these two skill levels. The ability of unions to raise the labour share of low-skilled workers is weaker (the coefficient is positive but not significant; see table 3C.3, Appendix C).

The replacement wage displays a strong negative effect on the labour share of income of high-skilled workers. The coefficient is -0.128 and significant. The effect of replacement wage on the labour share of income of medium-skilled workers is still negative but weaker (with a coefficient of -0.093), whereas for low-skilled workers the coefficient is positive and large (0.126).

... and well-designed minimum wages also have had positive effects in emerging and developing countries.

The impact of labour market regulation on income distribution is often difficult to assess in middle- and low-income countries due to the lack of available data. However, a new database contains three measures of labour market regulation, namely minimum wages, replacement wages and employment protection legislation between 1980 and 2005. Figure 3.4 presents a scatter plot illustrating the link between minimum wage (x-axis) and the wage share (y-axis). Despite the heterogeneity of countries, there is generally a positive relationship between minimum wages and the labour share (see table 3C.4, Appendix C).²⁰

20. Card et al. (2004) for instance find evidence that a minimum wage reduces wage dispersion.

C. Policy considerations

The chapter has highlighted the fact that the decline in the wage share is widespread, taking place across most regions and income-level groupings. Moreover, the decline in the wage share is a long-term trend which has, in many instances, accelerated in the past decade. Importantly, the decline has not yielded greater employment opportunities.

A number of factors are at play, notably financial globalization, which has been associated with larger capital flows and labour market deregulation. As such, the decline in the labour share of income has been shaped to some extent by institutional reforms and is not solely determined by mechanical forces linked with for instance technological changes and production structure. It follows that this recent trend can be undone if the right policies are put in place. In emerging and developing economies this means better management of short-term capital flows. Early evidence suggests that a number of countries which regulated such flows, such as Chile, were less affected by the effects of the global financial crisis. In high-income countries, the transmission channel between finance and functional income distribution is mainly related to new forms of corporate governance (see also Chapter 2). Firms have adopted restrictive employment and wage policies to maximize the dividends distributed to shareholders. In this perspective, high returns on financial capital constitute a disincentive to invest in productive capacities. Tax reforms might be the most appropriate tool to restore the proper incentives (see Chapter 5).

Policy-makers can also take proactive measures to improve the wage share by encouraging more effective dialogue and enhancing social dialogue in small enterprises. Moreover, effective collective bargaining can lead to improved labour market outcomes (see Chapter 6). Well-designed minimum wages – e.g. with increases at regular, known intervals and guaranteed purchasing power – can rebalance the distribution of income in favour of labour, especially in medium- and low-income countries. Here, too, effective social dialogue is central to policy design. Minimum wages can also help to sustain the incomes of low-skilled workers, whose labour share has been most affected by the trend decline.

Moving forward, what is needed is a comprehensive income-generation strategy to arrest the long-term trend decline in the share of labour income. Such a strategy will ensure that both economic and equity objectives are met.

Appendix A

Definition of the wage share

The wage share measures the share of income created that goes to workers. This is in contrast to the profit share, which measures the share of income that goes to capitalists. Income created is measured by value added, which is defined by the value of output less intermediate consumption. The share of income that goes to workers is defined by the compensation of employees. The compensation of employees is the sum of wages and salaries payable in cash or in kind and social contribution paid by employers.

$$\text{wageshare} = \frac{\text{compensationofemployees}}{\text{valueadded}}$$

Although this ratio seems to be straightforward, the definitions of labour income and value added are subject to many measurement difficulties. This has led to various attempts to adjust the definition of labour income and the definition of value added. These adjustments may deeply affect the level and trend in the wage share. Askenazy and Timbeau (2003), for instance, show that adopting different definitions of the wage share in the case of France and the United States modifies the observed trends.

The main measurement issue has to do with the share of labour income of the self-employed. The compensation of employees only captures the labour income of salaried workers. The category of self-employed can be large and is subject to significant changes over time. The income of self-employed raises an issue regarding the primary distribution of income as these agents are neither workers nor capitalists. The common strategy is to add to the compensation of employees a measure of the compensation of self-employed. There are three approaches. The first approach is to assign to the self-employed a wage, which is equal to the average wage of employees. The compensation of employees is now weighted by the size of self-employed in total employment:

$$\text{wageshare} = \frac{\text{compensationofemployees}}{\text{valueadded}} * \text{selfemploymentratio}$$

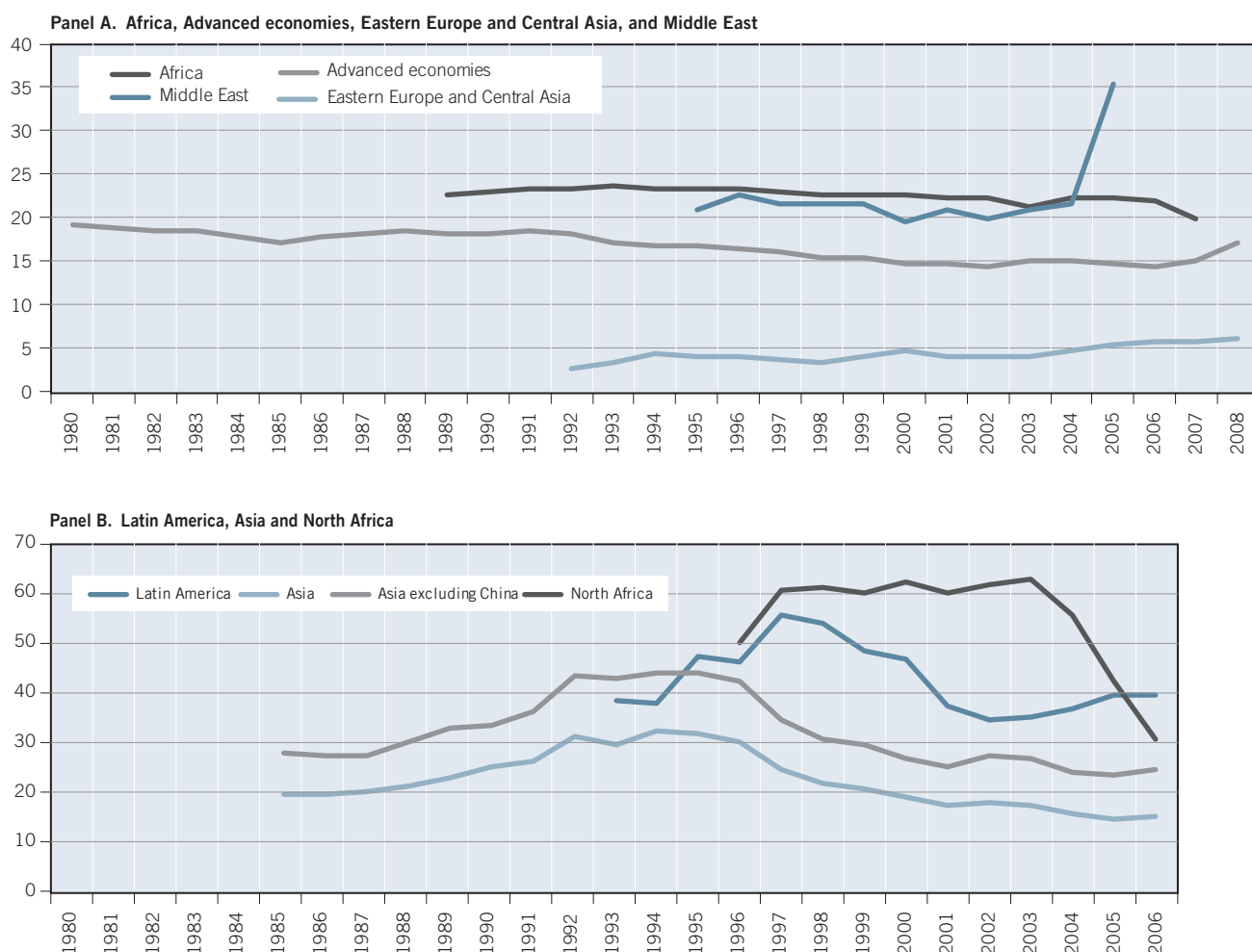
$$\text{With selfemploymentratio} = \frac{\text{totalemployment}}{\text{totalemployees}}$$

In contrast, Bentolila and Saint-Paul (2003) assume that the income of self-employed is usually less than that of employees. They assume that the fictional wage of the self-employed is two-thirds the average wage of employees.

A second approach is to impute the wage of self-employed from the wage of employees at the sectoral level.²¹ The main idea is that the income of the self-employed varies greatly at the sectoral level. In addition, the composition of self-employment fluctuates over time. In France in the 1970s, for instance, self-employed were mostly found in the agricultural sector, while self-employed were predominantly found in the service sector in the 2000s.

21. See for instance Askhenazy, 2003; Canry, 2007

Figure 3A.1 Ratio of total employees to total employment in different regions



Note: This figure shows a weighted average by regions of the ratio of total employees to total employment. This ratio is the inverse of the self-employment ratio defined above.

Source: ILS estimates.

A third approach is to rely on microeconomic data to impute the wage of the self-employed (for instance see Young, 1994). Similarly, Freeman (2011) uses households survey data for the United States and assigns the wage of employees to self-employed with the same characteristics in terms of age, education, sex and industry. This imputation method translates into an increase in the wage share by 0.03 percentage points at the aggregate level. In certain industries, such as agriculture, the correction is substantially larger.

In OECD countries, the self-employment ratio dropped from 20 per cent in 1980 to almost 14 per cent in 2005 (see figure 3A.1). In Central Asia and Eastern Europe, as well as in Africa, Middle East and North Africa, the ratio differs significantly, at around 5 per cent, 22 per cent and 55 per cent, respectively. The self-employment ratio has, however, been rather stable in these countries, with the exception of recent years. In the 2000s, large fluctuations took place, in particular in North Africa, in which the self-employment ratio halved between 2000 and 2006. In the Middle East, the self-employment ratio increased suddenly from 20 to 35 per cent between 2004 and 2005, while it was previously stable at around 20 per cent. Lastly, Asian countries (corrected and not corrected for China) and

Latin American countries are characterized by an inverted U shape. The rise in the self-employment ratio took place in the first half of the 1990s in Asia and in the second half of the 1990s in Latin America.

Appendix B

Data sources

The database on wage share was compiled by M. Charpe in 2008 and was improved and expanded in 2010 by Uma Amara Rani (amara@ilo.org). We made use of three different data sources to build the wage share. For high-income countries, we relied on OECD data to the extent that the OECD had detailed national accounts and a measure of employees in total employment. We gathered individual data from national statistical agencies for Brazil and China, given that existing data series were limited. Eventually, we relied on UN National Account data for the remaining countries.

High-income countries: Australia; Austria; Belgium; Bulgaria; Canada; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Italy; Japan; Korea; Latvia; Lithuania; Luxembourg; Mexico; Netherlands; New Zealand; Norway; Poland; Portugal; Romania; Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Turkey; United Kingdom; United States.

Latin America and the Caribbean: Argentina; Aruba; Bahamas; Bolivia; Brazil; British Virgin Islands; Chile; Colombia; Cook Islands; Costa Rica; Cuba; Dominican Republic; Ecuador; Guatemala; Honduras; Jamaica; Mexico; Netherlands Antilles; Nicaragua; Panama; Paraguay; Peru; Seychelles; Trinidad and Tobago; Uruguay; Venezuela.

Africa: Benin; Botswana; Cameroon; Cote d'Ivoire; Djibouti; Gabon; Kenya; Mauritius; Mozambique; Namibia; Niger; Nigeria; Rwanda; Senegal; South Africa; Sudan; Swaziland; Tanzania (Mainland).

Northern Africa: Algeria; Egypt; Morocco; Tunisia.

Central and Eastern Europe and Central Asia: Armenia; Azerbaijan; Belarus; Croatia; Kyrgyzstan; Republic of Moldova; Russian Federation; Serbia; The former Yugoslav Republic of Macedonia; Ukraine.

Middle East: Bahrain; Iran; Iraq; Israel; Jordan; Kuwait; Libyan Arab Jamahiriya; Oman; Qatar; Saudi Arabia; United Arab Emirates; Yemen Arab Republic (former).

Asia and the Pacific: China; Fiji; Hong Kong (China); India; Kazakhstan; Mongolia; Papua New Guinea; Philippines; Singapore; Sri Lanka; Thailand.

Labour share is adjusted for high-income countries. The wage share is adjusted for self-employment for medium- and low-income countries except for Bahrain, Benin, British Virgin Islands, China, Cook Islands, Cote d'Ivoire, Fiji, Gabon, India, Iraq, Jamaica, Jordan, Kenya, Kuwait, Libyan Arab Jamahiriya, Mozambique, Niger, Nigeria, Papua New Guinea, Rwanda, Saudi Arabia, Senegal, Sudan, Swaziland, Tanzania (Mainland) and Yemen Arab Republic (former).

Appendix C

Regression analysis

Table 3C.1 presents the results of the regression, which tests for the effects of financialization and labour market regulation on the wage share by using relevant estimation techniques and control variables. Panel A gathers the results for high-income countries and is made of both the estimation explaining the aggregate labour share and the estimation of labour share across skill levels. The details of the estimations can be found in tables 3C.2 and 3C.3. Panel B presents the results of the estimation for middle- and low-income countries by focusing on three regional areas: Eastern Europe, Latin America and Asia. Detailed presentations of the regression can be found in table 3C.4.

Table 3C.2 presents the results of the estimations carried out on a panel data of 16 advanced economies using data from 1981 to 2003. The dependant variable is the adjusted wage share as computed by the AMECO database. The explanatory variables can be gathered into three groups. The first group includes the capital labour ratio. This variable is used as a proxy for labour and capital endowment. A positive capital labour ratio implies a low elasticity of substitution between labour and capital.

The second set of variables proxy the bargaining power of capital and labour over income. Openness to trade is measured by the ratio of exports plus imports over GDP (trade open). Financial globalization (fin glob) is given by the sum of foreign assets and liabilities as a share of GDP and is taken from Lane and Milesi-Ferretti (2007). Labour market variables are taken from Bassanini and Duval (2006) and include union density (U dens), replacement wage (rep wage), labour taxation (L tax) and employment protection legislation (emp protect).

The last group of variables gathers control variables. Two control variables are used for the structure of the population: the percentage of young people in the total labour force and the percentage of old people in the total labour force. This set of variables also include: (i) the GDP per capita, to account for the degree of development of a country; (ii) the interest rate, to capture the impact of financial liberalization on the ability of government to control monetary policies; and (iii) the exchange rate, since it affects trade and financial globalization. The exchange rate is defined as U.S. dollars over domestic currency. The data source for these last three variables was Lane and Milesi-Ferretti (2007) .

To estimate our model we use generalized least squares with time dummy variables controlling for possible heteroscedasticity and correlation of the error terms. We also tested for the presence of unit roots in both the explanatory and dependent variables. The tests are performed at the panel level and not on individual countries. Fifty per cent of panel unit root tests (augmented Dickey-Fuller and Philips-Perron) show that the wage share is stationary, although the contrary is not always true when the test is done on a separate country basis (country level). Our strategy differs from that of Stockhammer (2009), who tests for unitroots at the country level. Our tests also show that among the explanatory variables, three of them (employment protection legislation, financial globalization and GDP per capita) are non-stationary. Thus, we use their first differences in our specification.

Table 3C.1 Output, employment, hours and inflation effects of policy changes under different degrees of social dialogue

Panel A. High-income countries

	Financial globalization	Trade openness	Union density	Labour tax	Replacement wage	
Skill	Aggregate	–	–	+	+	–
	High	n.s.	–	+	+	–
	Medium	n.s.	+	+	–	–
	Low	n.s.	–	n.s.	–	+

Note: This table summarizes the result of the estimations performed in tables C3.2 and C3.3, regarding the impact of different measures of financial globalization and labour market regulation on the labour share of income. The sign indicates the direction of the effect; n.s. = coefficient is statistically non-significant.

Panel B. Middle- and low-income countries

	Capital account openness	Trade openness	Replacement wage	Employment protection	Minimum wage	
Medium- and low-income countries	Eastern Europe	–	–	–	+	+
	Latin America	–	n.s.	–	–	+
	Asia	+	n.s.	+	–	–

Note: This table summarizes the result of the estimation performed in table C3.4, regarding the impact of different measures of financial globalization and labour market regulation on the labour share of income. The sign indicates the direction of the effect; n.s. = coefficient is statistically non-significant.

Table 3C.2 Baseline regression: 16 high-income countries, 1981 to 2005

	Adjusted wage shares			
KL ratio	0.245***	0.291***	0.259***	0.247***
trade open	–1.523***	–2.365***	–2.278***	–2.340***
fin glob	–0.019***	–0.019***	–0.013***	–0.012***
U dens	0.019***	0.021***	0.027***	0.029***
L tax	0.055***	0.144***	0.123***	0.123***
rep wage	–0.022***	–0.072***	–0.071***	–0.079***
emp protect	0.833***	–0.082	–0.238	–0.29
perc young	–0.989	2.479	0.93	0.125
perc old	54.239***	–72.155***	–66.460***	–65.460***
ex rate		–0.004***	–0.004***	–0.004***
GDP per capita			–0.002***	–0.002***
real interest rate				0.016
_cons	70.530***	72.260***	75.016***	75.263***
* P<0.10;** P<0.05;*** P<0.01				

Note: The estimation uses generalized least squares, time fixed effects. The error terms are corrected for error correlation. Countries are Austria, Belgium, Canada, Denmark, Finland, France, Ireland, Italy, Japan, Netherland, Norway, Portugal, Spain, Sweden, United Kingdom and United States, . Germany cannot be included since the times series for the stock of capital is missing before reunification in 1991.

Table 3C.3 Estimation across skills: 10 high-income countries, 1981 to 2005

	Adjusted wage shares			
	Aggregate unadjusted	High-skilled	Medium-skilled	Low-skilled
trade open	-1.628***	-5.966***	11.419***	-5.993***
fin glob	0	-0.002	0.004	0.003
U dens	0.083***	0.029***	0.035***	-0.005
L tax	-0.070***	0.186***	-0.151***	-0.032*
rep wage	-0.039***	-0.128***	-0.093***	0.126***
emp protect	0.224	-0.093	2.266**	-0.962
ex rate	-0.008***	-0.008***	0.006***	-0.007***
GDP per capita	-0.001***	-0.000**	0	-0.001***
real interest rate	-0.036	0.096***	0.208**	-0.203***
constant	61.533***	18.159***	29.119***	13.312***

* P<0.10, ** P<0.05, *** P<0.01

Note: The estimation uses generalized least squares, time fixed effects. The error terms are corrected for error correlation.

Table 3C.3 columns 2 to 4 reproduce the same experiment for high-skilled, medium-skilled and low-skilled wage shares. Given that the number of countries as well as the source of wage share data (EU-KLEMS) differs from the estimation presented in table 3C.2, column 1 reproduces the estimation for the aggregate wage share. The results are consistent with respect to table 3C.1 with the exception of financial globalization, which is now not significant, and with respect to labour tax, which has a negative sign (previously positive). The main explanation for the different result is the different sample of countries, as the estimations in table 3C.3 were performed on 10 rather than 17 countries. The source of data also differs: AMECO and EU-KLEMS.

Regarding middle- and low-income countries, there is a lack of evidence regarding the impact of labour market regulation on the labour share. As discussed above, the lack of data and the segmentation of labour markets impede such an analysis. This section attempts to fill this gap by making use of a new database called Labour Market Regulations in Low- Middle- and High-Income Countries (Aleksynska and Schindler, 2011).

We grouped countries according to their geographical region. The Eastern Europe region includes 11 countries, the Latin America region includes 12 countries, and the Asia region includes 65 countries and Hong-Kong (China). The panel is unbalanced and covers the period 1980 to 2005. The dependent variable is the unadjusted wage share. As underlined above, the self-employment ratio is large in economies with an informal economy, and the difference between adjusted and unadjusted wage share can be substantial. Since labour market regulation mainly affects formal workers, the unadjusted wage share seems the most appropriate measure.

In line with the specification for high-income countries, we also consider the impact of trade and financial globalization on the wage share. We also add a measure of capital account openness, which was not included in our high-income group our analysis. Capital account liberalization seems central here since deregulation took place over the time period covered. For this we use the index proposed

Table 3C.4 Estimation across medium- and low-income countries, unbalanced panel

	Unadjusted wage share			
	Eastern Europe	Latin America	Asia (with China)	Asia (without China)
Trade open	-0.039***	-0.021	-0.093***	-0.008
Fin glob	0.007	0.016	0.027***	0.014
Capital Acc open	-0.014***	-0.011***	0.012***	0.043***
Rep. wage	-0.243***	-0.165**		0.262***
Emp. protection	0.009***	-0.002***		-0.009***
Minimum wage	0.257***	0.073***	-0.582***	-0.131***
Crisis (dummy)	-0.027*	-0.025**	-0.046	-0.008
GDP per capita	0	0	0	0***
Real interest rate	0	0.000**	-0.003	-0.001

* P<0.10, ** P<0.05, *** P<0.01

Note: The estimation uses generalized least squares, time fixed effects. The error terms are corrected for error correlation.

by Chinn and Ito (2006). Additionally, we also account for the impact of currency crisis. Diwan (2001) showed that a sudden stop in capital flows leads to a large decline in the wage share. Currency collapse is proxied by a dummy variable taking the value of 1 when there is an exchange rate devaluation larger than 25 per cent.

The database related to labour market regulation contains information on minimum wage, replacement income and employment protection legislation (Aleksynska and Schindler, 2011). These three variables show low standard deviation, especially with respect to unemployment benefits and employment protection legislation. This reflects the large informal employment in these economies. Contrastingly, minimum wages exhibit relatively more variability. A shortcoming is the large number of missing values. To overcome this limitation, we use an unbalanced panel. This allows us to have a longer time series, so that changes in labour regulations can be captured, while including all available countries. The estimation procedure differs slightly from the one used for OECD countries. We still apply a generalized least squares estimator controlling only for cross-sectional heteroscedasticity. We also include time fixed effects. Minimum wage is measured by the ratio of minimum wage to mean wage. Unemployment benefits are measured by the average gross replacement rate during two consecutive years of unemployment. Regarding employment protection legislation, we consider two indicators: advance notice requirements and legally mandated severance payments.

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Investing in food security as a driver of better jobs¹



Main findings

- Given that food prices have tended to increase over the past few years, the purpose of this chapter is to examine the employment and distributional impacts of this trend in developing countries. On the positive side, higher food prices could benefit many developing and emerging economies where a large proportion of the labour force is engaged in agriculture (the “agricultural-income effect”). On the negative side, higher food prices could aggravate the income inequalities identified in Chapter 1 and poverty within vulnerable groups, such as urban net buyers and rural smallholders (the “poverty effect”).
- The chapter finds that the (positive) agricultural-income effect has been small. First, the gains from higher food prices have accrued disproportionately to intermediaries and operators in financial markets, rather than to small producers. Indeed, food commodities have become a major financial product. The amount invested in commodity funds has risen from US\$13 billion in 2003 to US\$352 billion in May 2011. The rates of return from commodity funds of seven major investors in 2011 range between 6 and 38 per cent. The total commodity return for one of the big investors rose by 84 per cent between 2003 and 2008. In general, during the same period, the prices paid to food producers increased less. For example, producer prices for staple foods increased by between 10 and 20 per cent in Brazil, Cameroon and Mali; and by between 10 and 30 per cent in Burkina Faso, Ethiopia and Kenya. Second, because food prices are so volatile, any increase in agricultural income is perceived by producers – especially small ones – as temporary. Food prices were twice as volatile during the period 2006 to 2010 than during the preceding five years. As a result, producers lack the stable horizon needed to invest the agricultural-income gains, perpetuating food shortages.

1. Excellent research assistance was provided by Eric Ballo and Adam Kahn.

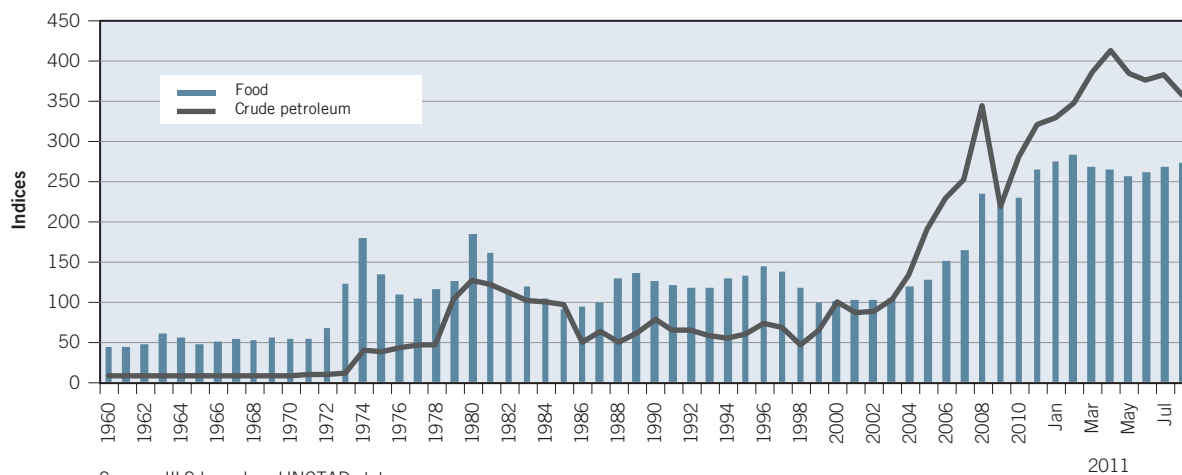
- There is significant evidence of a (negative) poverty effect associated with higher food prices. In nearly half the countries where data exist, the share of food expenditure in household income among the poorest population quintile is over 60 per cent – ranging from 38 per cent in Latin America to 70 per cent in Asia and 78 per cent in Africa. The chapter finds that a further 30 per cent increase in food prices may increase poverty rates by three percentage points in countries with chronic food shortages, such as Bangladesh, Indonesia, Malawi, Nepal and Viet Nam. Also, it is estimated that a 30 per cent rise in food prices will require low-paid workers to find one additional week’s employment every month in order to maintain their living standards.

This analysis confirms calls from other agencies, such as the Food and Agricultural Organization (FAO), to boost public investment in agriculture. But it also stresses the need for reduced volatility of food prices so as to reinforce the agricultural-income effect and thus boost market incentives to invest in agriculture. It is therefore crucial that financial speculation on food commodities is curbed, notably by regulating derivatives on commodity contracts and possibly by imposing a tax on such transactions (see Chapter 5).

Introduction

Over the past decade, food prices have increased steeply and may remain high and volatile,² thereby threatening the achievement of poverty reduction goals and affecting the development prospects of many countries. According to the FAO Food Price Index, global food prices rose by 30 per cent year-on-year – between August 2010 and 2011 – led by important staple foods. As the vast majority of developing countries are net food importers, higher prices will have adverse impacts on income and employment, as food import bills are expected to increase to US\$456 billion in 2011, which is about 25 per cent higher than in the previous year (FAO, 2011a). This is not a temporary phenomenon. Food prices (and crises)

Figure 4.1 Trends in food and oil prices (2000=100)



Source: ILS based on UNCTAD stat.

2011

have for the most part always been driven by external events, but the main drivers have shifted over the past decade and recently food commodities have become essentially a financial product.

Major global food crises in the past half century have mainly been related to wars and revolutions (see figure 4.1). For example, the Iranian Revolution in 1979 and the Iraqi invasion in 1991 triggered rises in the price of petroleum, which impacted fertilizer and transport costs of food; also the fall of the Soviet Union in 1990 triggered a significant global increase in the price of wheat. Since the early 2000s, however, the movement in food prices has become more correlated with that of energy prices. Energy is an input into agricultural production, so it is logical to expect that changes in energy prices lead to changes in food prices to some extent. But the closer correlation between energy and food prices also reflects the shift by institutional investors from traditional markets to commodities markets, including oil and agricultural commodities (Wahl, 2009).

The financialization of commodity markets has led to widespread gains for both institutions and individual investors. However, there have been adverse impacts, which are chiefly borne by net food importing developing countries and poor households. Higher food prices put a strain on public finances (in the form of increased subsidies) and allow less space for policies directed towards social protection, employment creation and rural development. The challenge for policy is to improve food security, by providing immediate assistance for those most in need, while targeting medium- to long-term measures for price stability.

The chapter is structured as follows. Section A examines the macroeconomic, labour market and social impacts of higher food prices. Section B analyses the factors contributing to the food price increases and, finally, Section C discusses key policy challenges.

A. Macroeconomic, employment and income effects of higher food prices

At the macroeconomic level the adverse impacts of rising food prices stem from the inflationary and trade consequences. The terms of trade impact is important in food importing countries – as the value of food imports rises with respect to the value of exports, there is a deterioration in the balance of payments.³ For the majority of low-income food deficit countries (LIFDCs)⁴ – many of whom also face large current account deficits with respect to their GDP and are heavily dependent on imports of staple foods such as cereals – their position is particularly vulnerable (FAO, 2009).

In this respect, higher food prices have a disproportionate effect on LIFDCs. In these countries, given the large share of food in the consumption basket, higher food prices add downward pressure on real wages – unless, of course, wages catch up to compensate for higher food prices, which is difficult to achieve in practice. Given the higher share of income going towards food, consumer spending on other goods is reduced, which can have adverse impacts on growth, employment and poverty in the medium term. In addition, in developing countries that provide

3. However, there can be offsetting effects – many food importers have benefited from the rise in the price of their non-food commodity exports, such as oil and minerals, as well as exchange rate impacts (since food commodities are denominated in US\$).

4. These are countries that have per capita gross national income (GNI) below US\$1,855 and a net import food trade position for basic staple foodstuffs.

food subsidies for the poor there is deterioration in fiscal balances. This, in turn, could lead to declining fiscal space, with potentially adverse effects on education and health programmes.

The inflationary effects have the most direct impact in many developing countries ...

The pass-through of food price increases from the international to the local food market is greater in developing economies than in developed economies. One of the reasons for this is that in developing economies the cost of staple foods makes up a larger share of the overall prices of food products. Food is less processed in developing countries and therefore, in most instances, other costs, such as labour and transportation, are much lower than in developed economies (IMF, 2011). Increases in international food prices accounted for almost 70 per cent of headline inflation in emerging economies (IMF, 2008); while contributing close to 4 percentage points to the rise in headline inflation in mid-2008, compared with only around 1 percentage point in advanced economies (Cecchetti and Moessner, 2008).

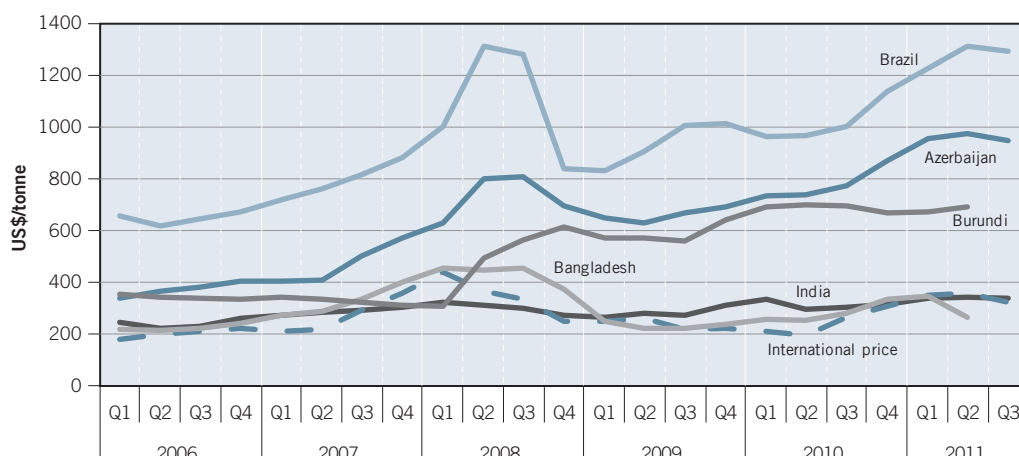
Other empirical studies support the strong pass-through impacts in developing countries. For example, Lora et al. (2011) show that the recent increases in international food prices are likely to result in an increase in domestic inflation in Bolivia, Dominican Republic, El Salvador and Guatemala of more than 10 percentage points, and of between 5 and 10 percentage points in the Bahamas, Colombia, Ecuador, Honduras, Panama and Peru.

As such, domestic prices in many developing countries tend to track closely the international price trends,⁵ as can be observed in the case of wheat prices for select developing countries, where the domestic prices generally follow the international trend (figure 4.2). However, there are periods when domestic prices are lower than the international price, and at times the rise in domestic prices outstrips that of the international price. The Asian region has experienced this phenomenon for certain commodities: for example, when global rice prices increased by 16.8 per cent between June 2010 and February 2011, domestic rice prices increased by 21.4 per cent in Bangladesh, 21.6 per cent in Indonesia and 36.7 per cent in Viet Nam (ADB, 2011).

There are, of course, other factors that affect the transmission of global food price fluctuations to domestic food prices, such as exchange rate movements, tariffs, infrastructure, government intervention (in the form of subsidies and price controls) and other market distortions (ADB, 2008a; de Hoyos and Medvedev, 2008). For instance, the low domestic prices in India during the peak of the food crisis were largely due to various commodity-based policies – such as creation of grain banks through government procurement, storage and distribution, and restrictions on international trade (Dawe, 2008) – which acted as a “stabilizer”. Additionally, intra-country variance in food prices could be quite large, affecting in particular remote areas with poor infrastructure. For example, estimates based on 30 developing countries show that populations in vulnerable geographic areas paid a 3.2 per cent premium compared with those in urban areas in 2009–10 (Ortiz et al., 2011).

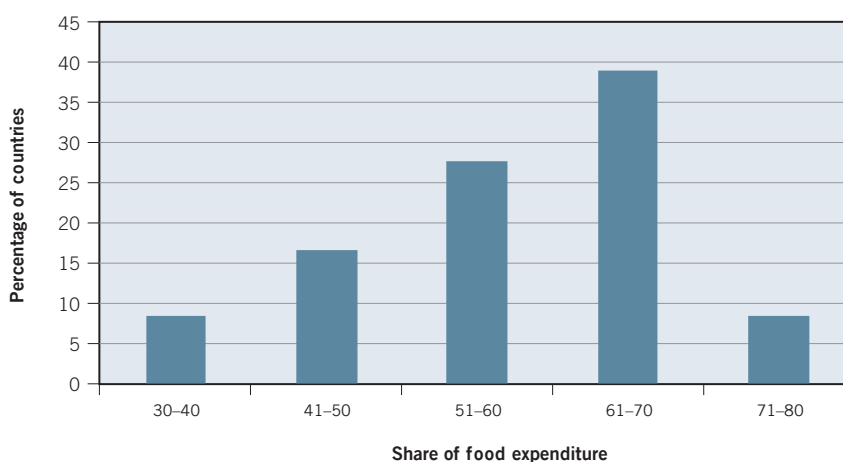
5. See for example Ortiz et al. (2011), who find a strong correlation between local and global food prices in 58 developing countries.

Figure 4.2 International and domestic wheat prices (US\$ per tonne)



Source: IILS based on FAO Food Price Data and Analysis Tool.

Figure 4.3 Share of food expenditure in total household income, developing countries



Source: IILS estimates based on Global Income Distribution Dynamics (GIDD) database,⁶ World Bank.

... hitting in particular low-income, net food buyers ...

It is obvious that low-income non-agricultural households are particularly vulnerable to increases in food prices (Barrett and Bellemare, 2011). According to estimates of the World Bank, the rise in food prices between June and December 2010 pushed an additional 44 million people below the US\$1.25 poverty line (World Bank, 2011).

An analysis of 72 developing countries using the Global Income Distribution Dynamics database has shown that the share of food expenditure in total income for the lowest quintile ranges from 38 per cent in Uruguay to 82 per cent in Laos. In about 47 per cent of the countries, the share of food expenditure among the lowest quintile is more than 60 per cent (figure 4.3). In comparison, in developed

6. For more details about the methodology of the dataset, see Ackah et al. (2008).

economies, such as the United States, low-income urban residents spend around 12 per cent of their expenditure on food (Cohen and Garrett, 2009).

The high share of food expenditure among poor households means that rising food costs often force them to change their consumption patterns. They may switch to buying food products with lower nutritional value or may consume less, which leads to hunger and malnutrition (Hossain and Green, 2011). In addition to the changes in dietary habits, households also reduce their expenditure on health and education, which has adverse long-term impacts (Ortiz et al., 2011).

... raising overall poverty rates ...

As the share of food expenditure represents a higher percentage of total expenditure among poor households, an increase in food prices represents a reduction in the purchasing power of those households. For this reason, global poverty is estimated to have increased by 3 to 5 per cent since the 2008 food crisis (Ivanic and Martin, 2008). Households who are net sellers of food grains would benefit from the price rise, but net food buyers, especially those in urban areas, and agricultural wage labourers and marginal farmers would face a decline in their welfare.

In this section, we estimate the net poverty effects⁷ that would result from an increase in food prices, in terms of the proportion of new households who would fall into poverty (figure 4.4). Since some smallholder farmers might benefit from the increase in price increases, we assume that the impact on them would be lower than for net food buyers. The poverty impacts at the household level of both a 10 per cent and 30 per cent increases in food prices for 13 developing countries in the short term were simulated using the Rural Income Generating Activities (RIGA) database.

Figure 4.4 shows the results of the analysis: the net impact of a 10 per cent food price shock would result in an increase in poverty rates in all the countries, with the net poverty impact ranging from a low of 0 and 0.04 percentage points in Albania, Nigeria and Panama to 2.2 and 2.9 percentage points in Bangladesh and Nepal. However, a 30 per cent increase in food prices has net poverty impacts ranging from 0.04 percentage points in Albania to 6.2 percentage points in Nepal. Poverty rates would triple in Guatemala, Indonesia, Malawi, Nigeria and Viet Nam, while the increases would be much more marginal in Albania and Panama.

... and reducing real wages and/or adding upward pressure on labour supply.

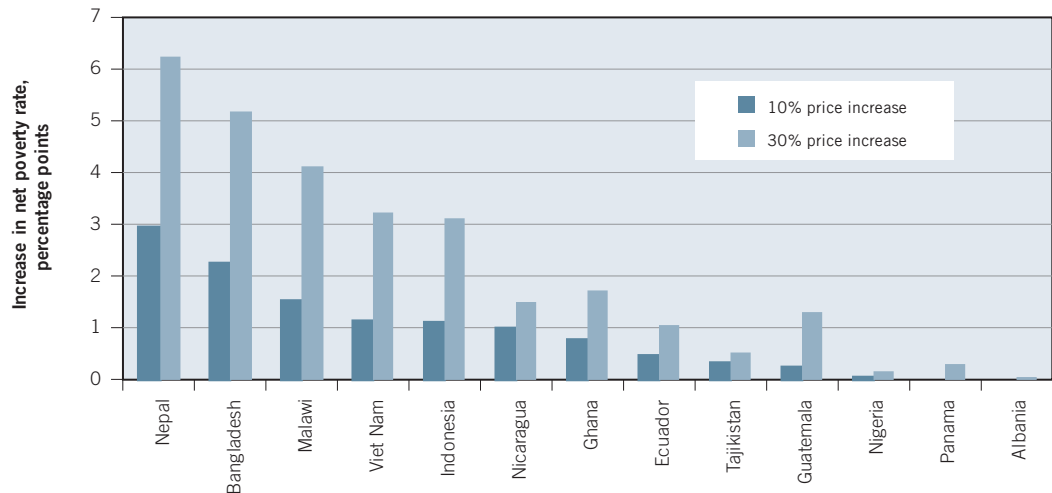
As mentioned above, a rise in food prices could also lead to a reduction in real wages. To make the nominal wage adjustments necessary to neutralize losses from price increases households might increase their labour supply, sometimes through child labour. We estimate the impacts of food price shocks on labour based on the

7. To evaluate the net poverty impacts of price changes:

$$\Delta y_i / y_i = \sum f_i (\Delta p_i / p_i) - \sum s_i (\Delta w_i / \Delta p_i)$$

where $\Delta y_i / y_i$ is the proportional change in the real attainable expenditure of household i ; f_i is the vector of shares of net sales in the total net expenditure of the household; and s_i is the shares of net factor incomes in total household expenditure. We use both the income and expenditure shares to assess the effect of changes in prices on poverty. We also consider major staple foods of the country to analyse the price effects.

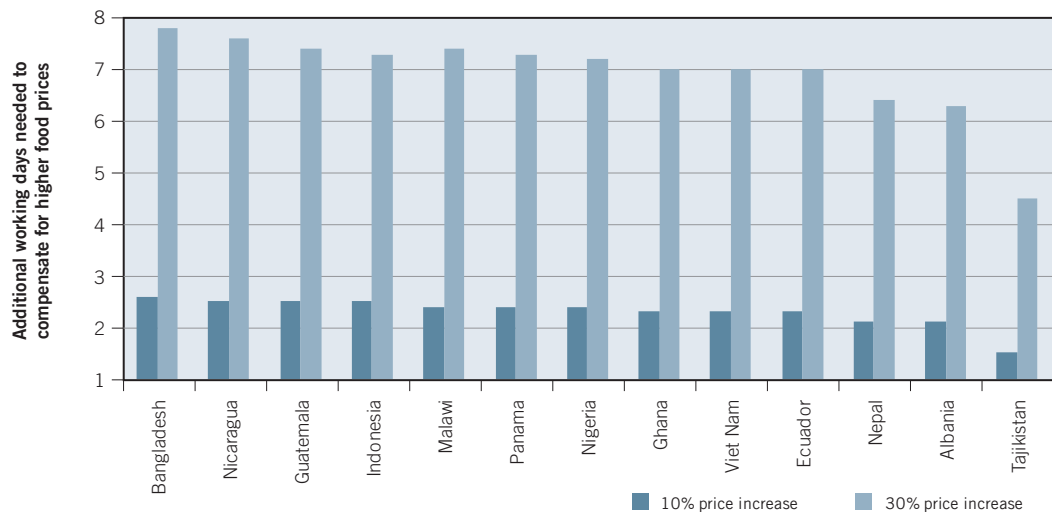
Figure 4.4 Net poverty effects of a 10 per cent and 30 per cent food price increase



Note: Poverty line at US\$ 1.25 per day. The corresponding survey years for the countries used for analysis are in parentheses: Albania (2005); Bangladesh (2000); Ecuador (2005); Ghana (1998); Guatemala (2000); Indonesia (2000); Malawi (2004); Nepal (2003); Nicaragua (2001); Nigeria (2003); Panama (2003); Tajikistan (2003); Vietnam (2002).

Source: ILS estimates based on Rural Income Generating Activity (RIGA) database⁸ provided by the FAO.

Figure 4.5 Employment impact of food price increases among low-income earners

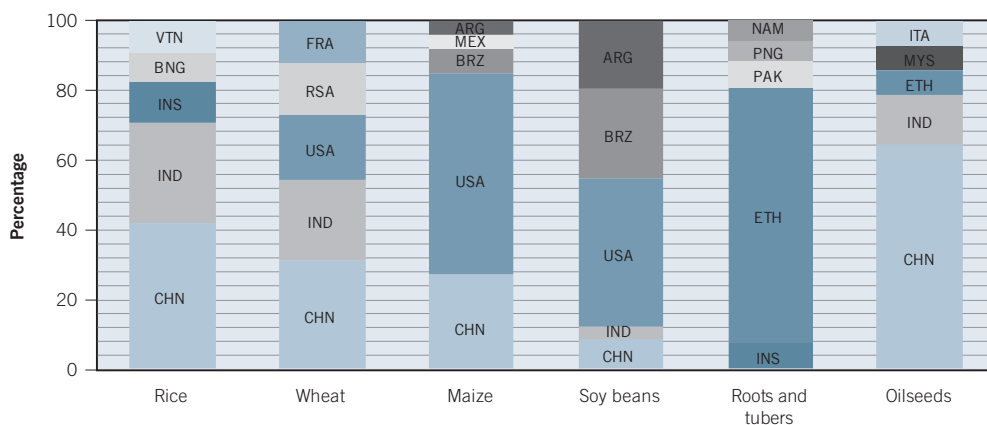


Note: The corresponding survey years for the countries used for analysis are in parentheses: Albania (2005); Bangladesh (2000); Ecuador (2005); Ghana (1998); Guatemala (2000); Indonesia (2000); Malawi (2004); Nepal (2003); Nicaragua (2001); Nigeria (2003); Panama (2003); Tajikistan (2003); Vietnam (2002).

Source: Same as figure 4.4.

8. For more details about the methodology for creating the RIGA-L database, see Quinones et al. (2009). Although the surveys were undertaken over the past decade, the results would not change even if one were to compare the results from a recent survey.

Figure 4.6 Top five producers of staple foods in 2005 (as a share of group total)



Note: ARG, Argentina; BNG, Bangladesh; BRZ, Brazil; CHN, China; ETH, Ethiopia; FRA, France; IND, India; INS, Indonesia; ITA, Italy; MEX, Mexico; MYS, Malaysia; NAM, Namibia; PAK, Pakistan; PNG, Papua New Guinea; RSA, Russian Federation; USA, United States of America; VTN, Viet Nam.

Source: IILS based on <http://www.fao.org/es/ess/top/commodity.html>.

RIGA datasets, by simulating the direct labour impact of price increases on low-income households (i.e. the bottom two quintiles) in the short term.⁹

We expect that low-income earners in both food-deficit and food-surplus countries would be most affected by the price shock as they are primarily net food buyers. Based on the real wage impacts, we computed the additional number of work days that a worker would be required to work to remain at the same real wage level as before the shock. The analysis shows that a 10 per cent increase in food prices would on average require 2.5 additional work days per month for low-income households in most of the countries (Bangladesh, Ecuador, Ghana, Guatemala, Indonesia, Malawi, Nicaragua, Nigeria, Panama and Viet Nam), while it would take 1.5 additional work days on average for low-income earners in Tajikistan to restore their income to its previous levels (figure 4.5).

A 30 per cent rise in food prices, however, would lead to more than a week's additional work per month for low-income households in the majority of countries analysed. Thus, for low-income households, an increase in food prices translates into a need to supplement current income sources through additional employment (assuming nominal wages are held constant). This phenomenon occurred in Viet Nam in the late 1990s when rice prices increased due to the liberalization of exports and imposition of internal trade restrictions. The result was an increase in child labour among net rice-buying households (Waddington, 2005).

By contrast, the gains from higher food prices mainly accrue to high-income groups ...

Higher international food prices also yield income gains for producers. Brazil, China, India and Indonesia are emerging economies which are major producers of staple foods – China, exceptionally, is a major producer of five out of the six

82 9. This assumes that no other substitution effects take place.

Box 4.1 Reduced access to nutrient-rich foods through export-oriented price distortion

The development of quinoa, the “miracle grain of the Andes”, into a major Bolivian export crop led to improved incomes for peasant farmers. However, “this success on international markets resulted in steep local price increases resulting in a highly nutritious traditional food source becoming largely unavailable to the majority of the population”. While exporting this well-rounded protein source internationally, Bolivia has been simultaneously receiving significant food aid in the form of wheat, and especially white flour, the largest single component of United States food aid to Bolivia in 2001–02.

From 1998 to 2001, the amount of quinoa exported to North American and European markets increased by nearly 60 per cent. In the Bolivian context, high-quality organic Quinoa Real (the dominant commercial variety), best grown in southern Bolivia, can sell for up to five times the equivalent quantity of soybeans, making quinoa a source of high income for rural farmers. However, in a country where 65 per cent of the population lives on below US\$2.00 per day, the development of the quinoa export market has made the crop unaffordable to the majority of the urban population.

Quinoa is highly valued in Bolivia for its nutritional content, and yet the high price is the single biggest factor affecting the diet of the poor; Bolivians note that pasta and bread are widely consumed for their role in “filling us up”. Women receive 615 to 1,025 and men 820 to 1,230 calories daily from bread, making white wheat flour the source of up to 50 per cent of daily calorific intake in Bolivia. Thus, development policies pursuing an active export market have created “a system where the most nutritious food crop available is transferred from the poorest in Bolivia to the wealthiest in the United States and Europe, arguably resulting in a decrement in dietary quality while satisfying whims and fads in wealthier countries. In exchange, Bolivians receive white flour.”

One policy consideration may be to implement price controls on the domestic market for quinoa. Although such policies have not been very successful in other countries, such as Argentina (which implemented price controls for beef in 2006), in the case of Bolivia quinoa is not widely consumed by the local population (Argentina has the largest per capita consumption of beef worldwide), and therefore should have less distorting impacts. Additional costs could also be offset by the long-term benefits of a healthier diet.

Source: Brett (2010).

staples (figure 4.6).¹⁰ Thus, higher international prices for such crops should have beneficial impacts for producers in these countries.¹¹

While there is an element of truth in this argument, evidence suggests that the gains from higher food prices mainly accrue to high-income groups. Most low-income groups – which gain little from higher food prices but are significantly affected in terms of more expensive food consumption – are net losers from higher food prices (table 4.1 and box 4.1).

10. Although staple foods vary by region, rice, maize and wheat provide 60 per cent of the world’s food energy intake and are the staple foods of over 4 billion people worldwide. Other crops, such as roots and tubers (cassava and potatoes), are an important staple for over 1 billion people in the developing world (FAO, 2011b).

11. Ng and Aksoy (2008) argue that many countries which are not primary exporters of food crops are still net agricultural or non-food commodity exporters – thus rising food prices have an offsetting impact when the rising prices of other exports are taken into consideration. In this sense, the authors note that the impact of higher food prices on developing countries is overstated.

... and have small effects on incentives to invest in agriculture.

In spite of the relatively high prices for agricultural commodities, farmers' investment decisions are primarily driven by the high price volatility. Price volatility increases uncertainty for farmers and affects their incomes, thus discouraging them from making essential investment that could have an impact on productivity and output. In particular, resource-poor farmers have not responded to price incentives in the market. For example, the supply response to recent food price increases in cereal has mainly come from large-scale commercial producers and not from small-scale farmers in developing countries. With the exception of Brazil, China and India, cereal production in developing countries actually fell between 2007 and 2008, by 1.6 per cent, as resource-poor farmers could not respond quickly to price incentives (IFAD, 2011).

Unless other measures are introduced, the recent price instability is expected to continue into the future, owing to climate change and increased speculative activity, as well as restrictive trade policies that limit access to markets in developed economies (Polaski, 2008; UNEP, 2010).

In summary, rising food prices have aggravated poverty without boosting food production or jobs.

The majority of the poor are net buyers of staple foods, thus they are the hardest hit by rising food prices. This group includes the urban poor, agricultural workers and non-farm rural workers. Even smallholders often do not produce enough staple foods for their own consumption, and only a minority of farmers have enough land and capital to produce a significant surplus to sell. For example, in Bangladesh, 80 per cent of the poor are smallholders and the majority are net buyers of food (Janvry and Sadoulet, 2008), and in Mozambique, 61 per cent of rural households are net buyers of maize, an important food staple (Boughton et al., 2006). Table 4.1 further supports the findings that the distributional impact of rising food prices on poverty and income are uneven, with net buyers being more adversely affected than net sellers, and that poverty increases are larger than poverty reductions.

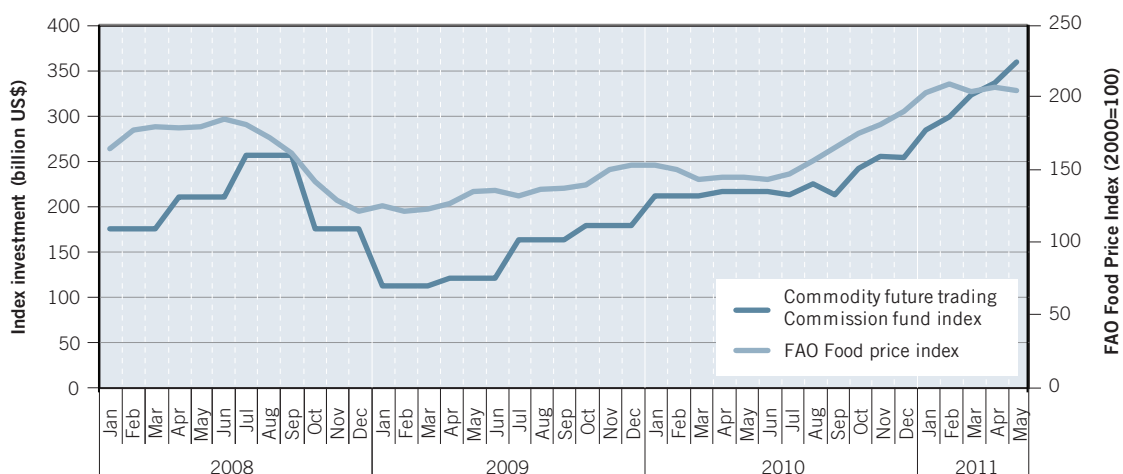
B. Factors contributing to food price increases

Food price increases over the past decade have been the result of a complex interplay of both short-term and long-term factors. The drivers of price change include weather-related supply shocks, underinvestment in agriculture, shifts towards biofuel production, land grabs and speculative activities in commodity derivative markets.

Food has become a financial product ...

The amount of money invested in commodity index funds rose from US\$13 billion in 2003 to US\$192 billion in March 2008, which means that the volume of index fund speculation increased by 1,900 per cent between 2003 and March 2008, and the holdings in commodity index funds increased from 500,000 in 2003 to almost 2.5 million in 2008 (Masters, 2008). The total investment in com

Figure 4.7 Food prices and commodity markets, in billion US\$



Source: ILS estimates based on FAO and Thomson Reuters database.

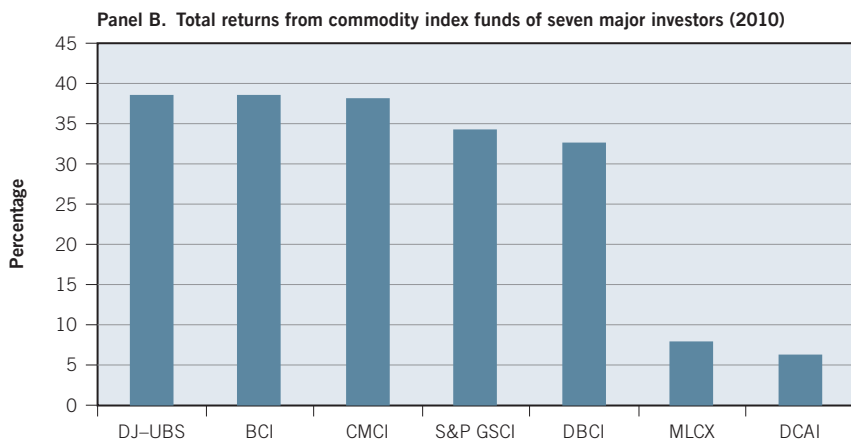
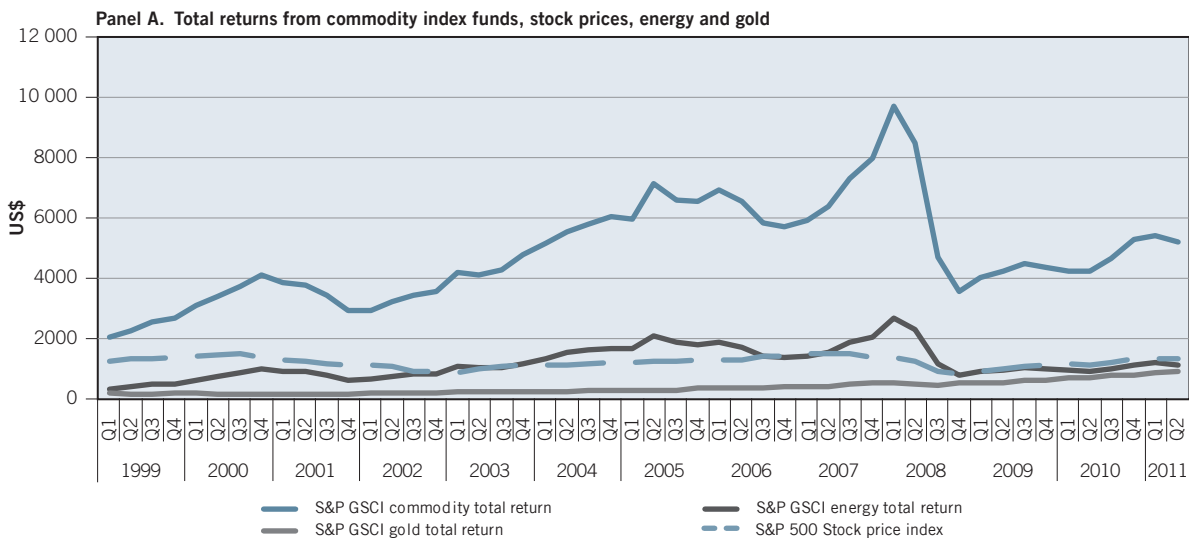
Table 4.1 Summary effects of distributional impacts of rising food prices

	Poverty effect	Income effect
Net buyers	Overall negative	Overall negative
<i>Urban</i>	10% increase in maize prices leads to 0.3% increase in poverty in Malawi ^a Poverty increased in Viet Nam ^b	10% increase in food prices leads to 2.6% income loss in Malawi ^a Income would drop by 25% if food prices doubled for 60% of the population in Ghana ^a
<i>Rural landless</i>	Poverty increased in Viet Nam ^b	10% increase in food prices leads to 1.2% income loss in Malawi ^a
<i>Rural smallholders</i>	Increase in poverty in Pakistan, Madagascar, Nicaragua and Zambia ^c 10% increase in maize prices leads to 0.5% increase in poverty in Malawi ^a	10% increase in food prices leads to 1.2% income loss in Malawi ^a 28% fall in incomes in 2009 in the United States compared with 2007 levels ^d
Net sellers	Overall positive	Overall positive
<i>Rural smallholders</i>	Reduction in poverty in Peru and Viet Nam ^e Top 20% gain from increase in maize prices in the short term ^a Gained the most from price rise in Viet Nam ^b	

Note: ^a Karfakis, et al., 2011. ^b Vu and Glewwe, 2011. ^c Ivanic and Martin, 2008. ^d Wise 2011. ^e Bryngelsson et al., 2009.

modity index funds dropped slightly in 2009 to approximately US\$240 billion due to lower commodity prices, but then increased to US\$352 billion in May 2011 (figure 4.7).

Figure 4.8 Total returns from commodity index funds



Note: DJ-UBS: Dow Jones-UBS Commodity Index; BCI: Barclays Capital Commodity Index; CMCI: Bloomberg Agriculture Constant Maturity Commodity Index; S&P GSCI: Standard & Poor Goldman Sachs Commodity Index; DBCI: Deutsche Bank Commodity Index; MLCX: Merrill Lynch Commodity Index extra; DCAI: Diapason Commodities Management Agriculture Index Fund.

Source: IILS estimates based on the websites of UBS, Dbfunds, Merrillinvest, RBS, Diapasconcm and Thompson Reuters database.

Based on the performance of the commodity index funds, stock prices, energy and gold on Standard and Poor's S&P500 for the period 1999 to 2011, the total returns from commodity index funds have been steadily rising, and at a much higher rate than for financial and other investments (figure 4.8, panel A). The total returns from these funds clearly indicate that when returns from other financial instruments declined in the aftermath of the financial crisis, commodity markets were the most attractive for financial investors.

Some of the financial investors, such as Merrill Lynch, Dow Jones-UBS, S&P Goldman Sachs and Deutsche Bank, hold 17 to 35 per cent of future contracts for agricultural products, and they roll over their positions continuously by buying calendar spreads. An analysis of 1-year returns from commodity index funds (2010) for seven major investment banks in 2011 ranges between 6 and 38 per cent (figure 4.8, panel B). Thus, it is clear that in the current commodity price environment there is growing use of commodities as investments, largely due to the high short-term gains and because they constitute an attractive vehicle for portfolio diversification. And, there is some evidence that speculative activities have

contributed to excessive fluctuations in food commodity future prices and distorted signals for expected prices (FAO, 2010). However, what is particularly disturbing is that large investment banks give price forecasts for commodities and therefore stand to benefit if these forecasts come to pass. Thus, they have a dual role as both player and driver in the market.

... contributing significantly to price volatility in some cases.

Increasingly, there is evidence that financial speculation in the commodity markets has been one of the driving factors behind rising food prices and volatility.¹² Speculation is not new to commodity markets, and purchases of agricultural commodities future contracts have classically been the means by which a limited number of traders stabilized future prices and allowed farmers to finance future crop production (Pace et al., 2008). But, what has changed is the growing number of financial investors that have entered into the market through index funds since the 2000s (Chowdhury, 2011), as investment in commodity markets has become more attractive to non-commercial investors due to the higher expected returns and negative correlation to other options, such as stocks or bonds (Hailu and Weersink, 2010). It also offers a hedge against inflation.

The increased participation of index fund investors in commodity markets represents a significant structural change, and it has also generated a wide debate among policy-makers and academics about the role of financial speculation. The problem with such investment is that trade has become de-linked from the market fundamentals of demand and supply, and instead is influenced by other factors in the financial market, most particularly profit motives.

Some studies suggest that the influx of index investors and new money into the commodity futures market have created a commodity price bubble (Hailu and Weersink, 2010; Ghosh, 2010; Wahl, 2009). The argument is countered somewhat by other studies, which find no link between investment by index funds and commodity price changes; there is a weak evidence for a link between index-based investment and grain prices (Gilbert, 2009) and no effects over long-horizon regressions (Irwin and Sanders, 2010). But based on a recent survey of commodity market participants, UNCTAD (2011a) finds that the role of financial investors has become more important in recent years and that they can move prices in the short term.

Underinvestment in agriculture

The underinvestment in public goods in agriculture has been pertinently raised in a number of studies and reports (World Bank, 2008a; FAO, 2009), as official development assistance to agriculture declined in real terms by nearly half between 1980 and 2005 (Cabral, 2007). It fell from about 17 per cent in the early 1980s to about 3 per cent in 2005. While aid flows have increased by 4 per cent per year

12. Among recent studies in this area, see for example: Chowdhury, 2011; Jomo, 2011; Ghosh, 2010; and Wahl, 2009.

in real terms following the Monterrey Conference¹³ in 2001, a large aid shortfall still remains.

Public expenditure on agriculture has also declined in most developing countries, even in areas where public investment has produced high returns, such as agricultural research and development. According to Fan and Saurkar (2006), the share of agricultural expenditure in total government spending dropped from 11 per cent in 1980 to about 7 per cent in 2002, based on an analysis of 44 developing countries.

In many developing countries, structural adjustment loans were promoted in the agricultural sector in the 1980s and 1990s with the aim of removing agricultural input and output subsidies and downsizing agricultural sector agencies. Some authors argue that the IMF and World Bank initiatives in many of these countries resulted in a decline in government expenditure on agriculture (Akroyd and Smith, 2007). Baviera and Bello (2009) found that the productive capacity of agriculture in sub-Saharan Africa was eroded in the 1980s because governments were pushed to completely dismantle the elaborate systems of public agencies that provided farmers with access to land, credit, insurance inputs and cooperative organization.

There is evidence which show that increases in government spending or aid in agriculture would lead to both agricultural growth and reduction in poverty in rural areas.¹⁴

Land grabs and foreign acquisition of agricultural land

While there has been a decline in public investment and official development assistance to agriculture over the past two decades, the past decade has also seen an increase in foreign private investment in agriculture. In many of the less-developed countries this investment has been in the form of land leases and land transfers to resource-rich countries. Between 2004 and 2009, the proportion of land acquired varied from 0.8 per cent in Mali to 2.3 per cent in Madagascar¹⁵ (Cotula et al., 2009). Globally, about 15 to 20 million hectares of land have been leased or transferred since 2000¹⁶ (HLPE, 2011). The land deals occur at multiple levels, involving national governments, foreign governments, private investors and multinational companies. These large-scale investments have been lauded by some as new engines of economic growth, having the potential to increase capital flows to agricultural development and rural development. However, their adverse impacts on smallholders, food production (and its domestic availability) and employment are not made explicit (Graham et al., 2011).

13. The first United Nations-hosted conference to address key financial and development issues was held in March 2002 in Monterrey, N.L., Mexico. The purpose of this meeting was to discuss about aid effectiveness and to increase aid. The international community agreed to increase its funding for development during this meeting but also acknowledged that aid alone is not enough but there is a need for more commitments from Governments towards development objectives.

14. See for example Fan et al. (2007) for some of the country cases.

15. This is based on in-country systematic inventories of areas involved in large-scale land investments.

16. These estimates are largely based on media reports, so it might be an overestimate as some of the land deals either have not turned into reality or have been recalled.

A recent report by the High Level Panel of Experts¹⁷ (HLPE, 2011) argues that these investments involve a complex interlocking of global systems of interest, both direct and indirect. The direct players include companies that plan to grow food and animal feed, while the indirect players – such as pension fund managers, real estate groups and finance capital – consider land as an additional asset within a broader portfolio. However, it is very difficult to provide evidence or an estimate of how much of this land investment is “speculative”. Land leases and transfers in Africa seem to be motivated by high commodity prices, food security concerns and biofuels; while in Latin America and the Caribbean they are driven by the demand for natural resources (FAO, 2009; HLPE, 2011).

The private investors who are approaching many of the Asian and African governments for land acquisition often accept these deals immediately as they create a fresh flow of foreign capital to build infrastructure and upgrade storage, but the extent to which these resources are utilized effectively is questionable. Investments have also been made in countries where land laws are weak (HLPE, 2011). International investment in agriculture in developing countries is largely concentrated among a few players – Saudi Arabia, the Gulf States, some Asian players (China, India and South Korea) and the United Kingdom – principally to secure their food supplies (Cotula et al., 2009) or for biofuel production. Interestingly enough, all of these countries are relatively more food secure than the host countries. Some of the regional blocs also seem to have an influence on these investments, such as the European Union through its directive on biofuels (which makes it mandatory that, by 2020, 10 per cent of the fuel used in transport must be biofuel) (HLPE, 2011).

C. Policy challenges and the way forward

Insufficient investment in the agriculture sector, coupled with the increasing number of land grabs (for biofuels, cash crops or intercountry investment), is chiefly responsible for the worrying food security situation. While these issues are crucial, it is also important to tackle the excessive price volatility associated with the growing financialization of commodity markets. This issue was recently placed at the centre of the G20 debate. The first meeting of the G20 agriculture ministers was held in June 2011, following a number of regional ministerial meetings in Africa and Asia. The agriculture ministers agreed to support for smallholders and women farmers, and long-term investment and productivity, but passed on the financial issues to the November G20 finance ministers’ meeting at Cannes, where the International Organization of Securities Commissions will investigate and report on key issues affecting short-term price volatility.

Addressing trading in commodities based on purely financial motives

In the short term it is important to reduce speculation on food commodities by increasing the oversight and regulation of both the futures markets and over-the-counter trading. Additionally, more transparency with regard to agricultural information and traders and their volumes will limit risk taking and improve identification and overall commodity market efficiency.

17. The UN Committee on World Food Security (CFS) has set up this High Level Panel on experts on food security and nutrition for getting credible scientific and knowledge-based advice for policy formulation.

Box 4.2 Regulations on commodity speculation in India

In considering how best to design policy to reduce volatility in wheat prices, the Indian Government undertook an analysis of the links between commodity speculation and the domestic price of wheat (Dasgupta et al., 2011) using historical data pertaining to wheat prices with and without bans on futures trading. They found that “banning wheat futures lowers domestic wheat prices, and drives a better wedge between international and domestic wheat prices, and therefore, regulatory mechanisms should be used to either regulate the domestic commodity futures better, or even to ban them outright in times of high or volatile global commodity and wheat prices”.

These results led the Government to conclude that there is a need to regulate commodity futures in wheat much more strongly (and even to ban them during excessive international prices) and to rely less on outright export bans, which remain a weak and likely ineffective or blunt instrument. Thus, India has continued its ban on a commodity futures market since the onset of the food crisis.

Improved oversight of the market is needed to detect irregularities in trading and to help reduce price volatility. Of course it is important to find the right balance between regulation and market liberalization, but in its present form the market is tilted towards too much of the latter and is not functioning based on the principles of demand and supply. This impairs the hedging function of the exchange needed for trade efficiency (UNCTAD, 2011b).

There are a number of recommended actions that could be taken to improve the regulatory function of markets. First, position limits could be imposed on commodities traders. Such limits are currently under review in both the United States and the European Union. In any case, an interim solution could be the introduction of a position management system, whereby once a trader reaches a predetermined limit they would have to provide further information before being allowed to go forward (UNCTAD, 2011b; Chilton, 2011). This could be particularly useful during periods of external shocks that have been shown to impact on price movements, such as energy or exchange rate shocks. Additionally, to reduce excessive risk taking, a progressive tax system could be introduced – so that as the price of the commodity moves outside a specific range, the tax rate on profits increases.

Second, an outright ban on speculation in the commodity market could be introduced – as is being practised in some cases (see box 4.2). Indeed, Ghosh (2010) argues “the resolution of the world food crisis requires specific controls on finance, to ensure that food cannot become an arena of global and national speculation. These controls should include very strict limits (indeed bans) on the entry of financial players into commodity futures markets.” In the event of such an occurrence, there are indeed other alternatives to commodity markets that can stabilize the future income streams of farmers and provide crop security, such as mutual insurance among farmers and state-guaranteed prices.

Third, the timeliness, reliability and coordination of agricultural data – currently obtained from a wide variety of sources – could be improved. Improved transparency would also help to reduce reliance on price forecasts by large investment banks, which have a vested interest in market outcomes – because most of the undisclosed data available refer to privately held stocks. The recent proposal by the G20 agriculture ministers for an FAO-based Agricultural Market Information System (AMIS), to encourage major agri-food players such as Archer Daniels Midland, Bunge, Cargill and Louis Dreyfus (who collectively are responsible for

75 to 90 per cent of global grain trade) to share data and promote cooperation, is a welcome step (Murphy, 2011). However, the AMIS is unlikely to be sufficiently far reaching – the need for such a system highlights the fact that international markets are not working and require further regulation.

It is imperative to have new regulations that address financial commodity price volatility because speculative activity yields stark consequences for millions of people across the developing world.

Tackling supply-side constraints through increased agricultural investment and productivity

There are also important domestic measures that governments can take to stabilize commodity prices, such as building up commodity reserves. Holding stocks for emergencies has been a controversial policy action, but countries that hold stocks on a significant scale, such as China and India, have managed to mitigate the worst price increases (Ghosh, 2010). Grain reserves can work in a similar way to strategic oil reserves, and can be used both for food security and for signalling to the market.

For the medium and long term, however, the neglect of the agriculture sector must be addressed through improving the ratio of food crops to cash crops (including biofuels) and by increasing investment and productivity growth. This will not only improve food security, but will also contribute to improved agriculture wages and much-needed employment growth. This apart, the past decade has observed an increasing number of land grabs (for biofuels, cash crops or inter-country investment), which clearly calls for a definitive policy direction to ensure that food insecurity is not increased in already food insecure countries. The issue of productive investments in rural development for reducing poverty, improving food security and enhancing employment growth was also part of the discussion at the ILO's Governing Body Meeting in March 2011 (ILO, 2011).

Policies and programmes to lessen poverty and food insecurity and to enhance equity and sustainability of incomes and livelihoods must seek to achieve an agriculture-led broad-based economic development. To do this requires according the highest priority to smallholder farmers, as they are vital for agriculture and the rural economy. Furthermore, increased capital formation, along with expansion of irrigation techniques, is needed in the agriculture sector as it has been declining in a number of regions.

Investment in the expansion of irrigation, and also in the maintenance of existing irrigation structures, is critical for ensuring food security and also for generating productive employment for the poor and low-income agricultural households in rural areas. Along with government efforts to reduce price distortions and address water shortages and climate change, there need to be incentives for farmers to switch from non-food to food crops and to increase productivity. For example, smallholders often have little choice but to participate in inefficient markets with several layers between the producer and the consumer.

There is an increasing trend for big private agri-business and multinational companies to work in partnership with smallholders in food production. These partnerships provide the smallholders with access to technology, credit and expertise and help them to raise their incomes, but the balance of power is often skewed towards the big businesses. The smallholders will often lack the leverage and organization needed to engage their partners in collective bargaining or social dialogue. Efforts therefore need to be made to improve the bargaining power of

these smallholders or to empower them so that they can better manage their position with regard to the growing risks and opportunities in the international agricultural markets.

Unequal access to land has also had an impact on smallholder incomes, and the land grabs and transfers over the past decade in sub-Saharan Africa have put a further strain on smallholders. In Guatemala, government access-to-land programmes for beneficiaries with little or no land and no off-farm opportunities were found to be important for poverty reduction in the short term (Bandeira and Sumpsi, 2009). In rural Mozambique, increases in landholding size were found to reduce poverty when combined with inputs such as labour, fertilizers and animal traction (Cunguara, 2008). As land laws are often very weak, the legal and technical advice for the governments and local communities should be enhanced and strengthened (HLPE, 2011).

Providing well-designed social protection

Recent food price shocks have actually led to nearly a billion people facing hunger, and each year more than 3.5 million children die from malnutrition (FAO, 2010). Therefore, in addition to addressing short- and longer-term market issues, there is also a need to focus on immediate assistance for the poor and vulnerable. In this regard, the expansion of social safety nets and assistance programmes is crucial. An option for mitigating both the poverty and nutritional effects of food price increases and shocks in the short term could be the provision of cash transfers along with micronutrient supplementation – targeted at poor women and young children (Glassman, 2011).

These programmes can also be relatively cost-effective and can help to reduce the risk of poor families selling productive assets for food, discontinuing their children's education or, more importantly, reducing their food consumption. In this respect, the social transfers could play an important role in combating the impact of food insecurity. For example, to strengthen the safety net programmes for the most vulnerable population, Cambodia instituted the National Task Force for Emergency Food Assistance and provided compensatory consumption support, including the provision of free food to selected families and to those enrolled in the food-for-work programme (ADB, 2008b). To encourage children from poor households to continue at school during the food crisis and to discourage child labour, school feeding programmes were introduced in Brazil, Burkina Faso, Cape Verde, China, Honduras, Kenya, Mexico, Mozambique and Philippines (World Bank, 2008b).

Support programmes such as food stamps or vouchers can also help to shore up consumption while also meeting immediate food needs, particularly during times of crisis. However, while food subsidies can help to mitigate social unrest in the short term, they are relatively less cost-effective. Thus, during a crisis, a social protection floor can play a very important role in providing income security to vulnerable individuals and families. Simultaneously, efforts should be made to ensure that minimum wages are implemented for all workers and that minimum wage adjustments are made to reflect the changes in food prices.

Ensuring the global commitment to food security

Because of concerns about underinvestment in agriculture, a number of commitments were made in the past decade to increase aid to developing countries.¹⁸ However, few donors seem to have met their stated commitments to scale up aid (OECD, 2008). Furthermore, there was a global recommitment to ensure global food security in L'Aquila, Rome, in 2009. It was clearly expressed that food security is closely connected with economic growth and social progress. It was also recognized that the present food crisis was indeed due to the longstanding underinvestment in agriculture, and that this would not only increase the number of hungry poor, but would also jeopardize the progress towards meeting the UN Millennium Development Goals.

The ILO, which has been part of the United Nations High Level Task Force on the Global Food Security Crisis since June 2009, has been given the important task of promoting and coordinating a comprehensive response to the challenge of achieving food security as part of its Decent Work Agenda. One of the major items of the 312th Session of the Governing Body in November 2011 will be to carry this agenda forward.

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Tax reform for improving job recovery and equity¹



Main findings

- Given the shift in public discourse from stimulus to consolidation, the purpose of this chapter is to present an overview of government revenue measures that could be taken to support the reduction in the debt while making room for pro-employment programmes and moving towards more equitable growth patterns. Following the global crisis, increased expenditures coupled with the fall in revenues pushed fiscal deficits to 5.2 per cent in advanced countries and 3.7 per cent in developing countries in 2009. Additionally, tax systems have become less progressive, placing a heavier burden on real investment and employment than on other activities, such as financial revenues or property.
- The chapter finds that the tax structure in both advanced and developing countries has changed considerably over the past decade or so. Particularly since the global crisis, there has been an increasing reliance on indirect taxes and social contributions for revenue generation. This creates an extra burden on poor households and workers, while at the same time a declining trend has been observed in top personal income tax and corporate tax rates in at least the past decade:
 - forty-three per cent of countries decreased top income tax rates during 2000 to 2008; while 70 per cent of countries decreased corporate tax rates during the same period;
 - thirty per cent of countries increased value added tax during 2000 to 2008.

1. Excellent research assistance was provided by Sébastien Fontenay and Anna Akinshina.

- The analysis confirms the need to expand tax revenue by considering more innovative options as a means of financing pro-employment programmes. If properly designed, the implementation of taxes such as property and environmental taxes could serve to redistribute income towards workers without adversely impacting the productive base; while financial transaction and activities taxes could help to stem some of the excessive risk taking that has led to market volatility, particularly in the commodity market (see Chapter 4).
- However, international cooperation is needed to improve compliance and reduce the risk of tax evasion and avoidance. Illicit capital flows linked to tax evasion are estimated to be around US\$700 billion in emerging countries and US\$355 billion in Europe per year. This is an issue that is expected to be addressed as part of the G20 process.

Introduction

The previous chapters highlighted the need for pro-employment programmes and policies to increase productive investment (Chapter 2), including in the rural sector (Chapter 4), and bring about more efficient and equitable wages (Chapter 3). These fiscal measures are important in order to address the underlying structural issues in the global economy while also addressing the more immediate need of supporting recovery and averting another global recession. However, with debt-levels at near unsustainable levels in many countries, some governments have been contracting their fiscal spending in an attempt to rein in deficits. There is concern that this might seriously affect the already fragile and uneven recovery described in Chapter 1 and also depress growth and decent work prospects in the medium term. Such is the case in both developed and emerging economies.

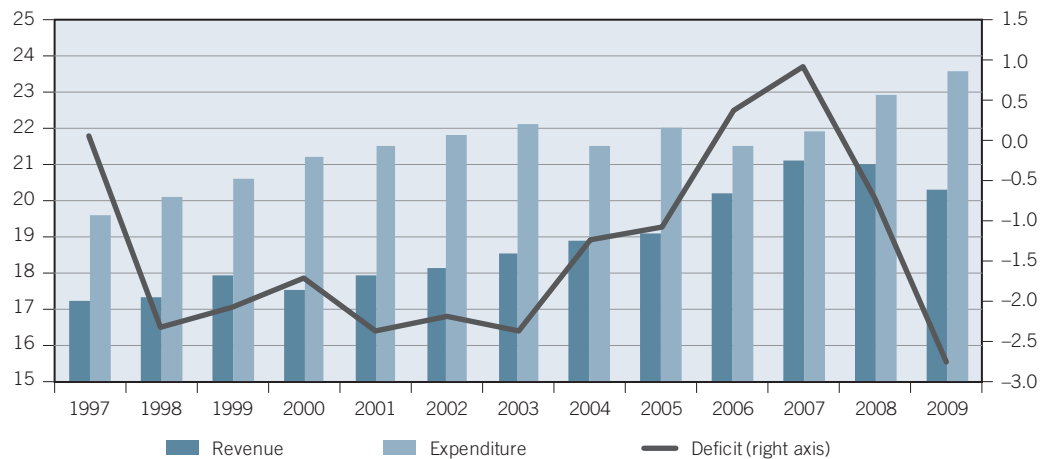
The argument must, therefore, properly reflect on how to couple expenditure on employment-friendly programmes with a medium-term fiscal consolidation plan. The purpose of this chapter is to present an overview of government revenue measures that could be taken to support medium-term fiscal consolidation while making room for pro-employment programmes and moving towards more equitable growth patterns. The starting position is illustrated in figure 5.1 and figure 5.2. In advanced countries, the improvement in the fiscal position before the global crisis was due mainly to consolidation on the expenditure side, while in emerging and developing economies it was mainly the result of gains in revenues. Increased expenditures in the wake of the crisis coupled with the fall in revenues pushed fiscal deficits to 5.2 per cent in advanced countries and 3.7 per cent in developing countries in 2009. There is also some evidence that, overall, tax systems have become less progressive and that taxation of real investment and employment is relatively heavy vis-à-vis taxation of other activities, such as financial revenues or property (Landais et al., 2011).

Figure 5.1 Government revenues, expenditures and deficits in advanced countries (weighted averages, percentage of GDP)



Source: ILS calculations based on IMF (2011), OECD.Stat Extracts and World development indicators (2011).

Figure 5.2 Government revenues, expenditures and deficits in emerging countries (weighted averages, percentage of GDP)



Source: ILS calculations based on IMF (2011) and World development indicators (2011).

With this mind, the chapter will discuss the role of taxation in helping a job-rich recovery and averting a double dip. Section A discusses the structural changes in revenue patterns in the past decades in relation to their progressiveness and employment impacts. Section B examines the issue of tax burden and employment. Section C looks at innovative ways to expand tax revenue along with lessons learned from specific country examples.

A. The evolution in tax structure

The trend in government revenues in advanced and emerging countries prior to the crisis requires a better understanding of countries' different sources of revenue. Thus, this section analyses the structural changes in tax revenue across five broad categories (see Appendix A for definitions) at the international level and provides country-level examples.²

In advanced countries, revenues from taxes on goods and services, personal income and social contributions represent over two-thirds of total revenue and have remained fairly stable over the past decade ...

In advanced countries (figure 5.3, panel A), three sources of taxes (taxes on goods and services, individual income tax and social contributions) each contribute over 20 per cent to total revenue. For the most part, taxes on goods and services (mainly valued added taxes (VAT)) and individual income taxes have remained fairly stable over the past decade. But, social security contributions declined, falling from 25 per cent of total revenue in 1995 to 23 per cent in 2007.

The other three sources of revenue each contribute less than 10 per cent to the total. While property taxes and international trade taxes have both remained rather stable, corporate income tax revenue has risen considerably. The contribution of corporate income tax rose from less than 6 per cent in 1995 to over 9 per cent in 2007.

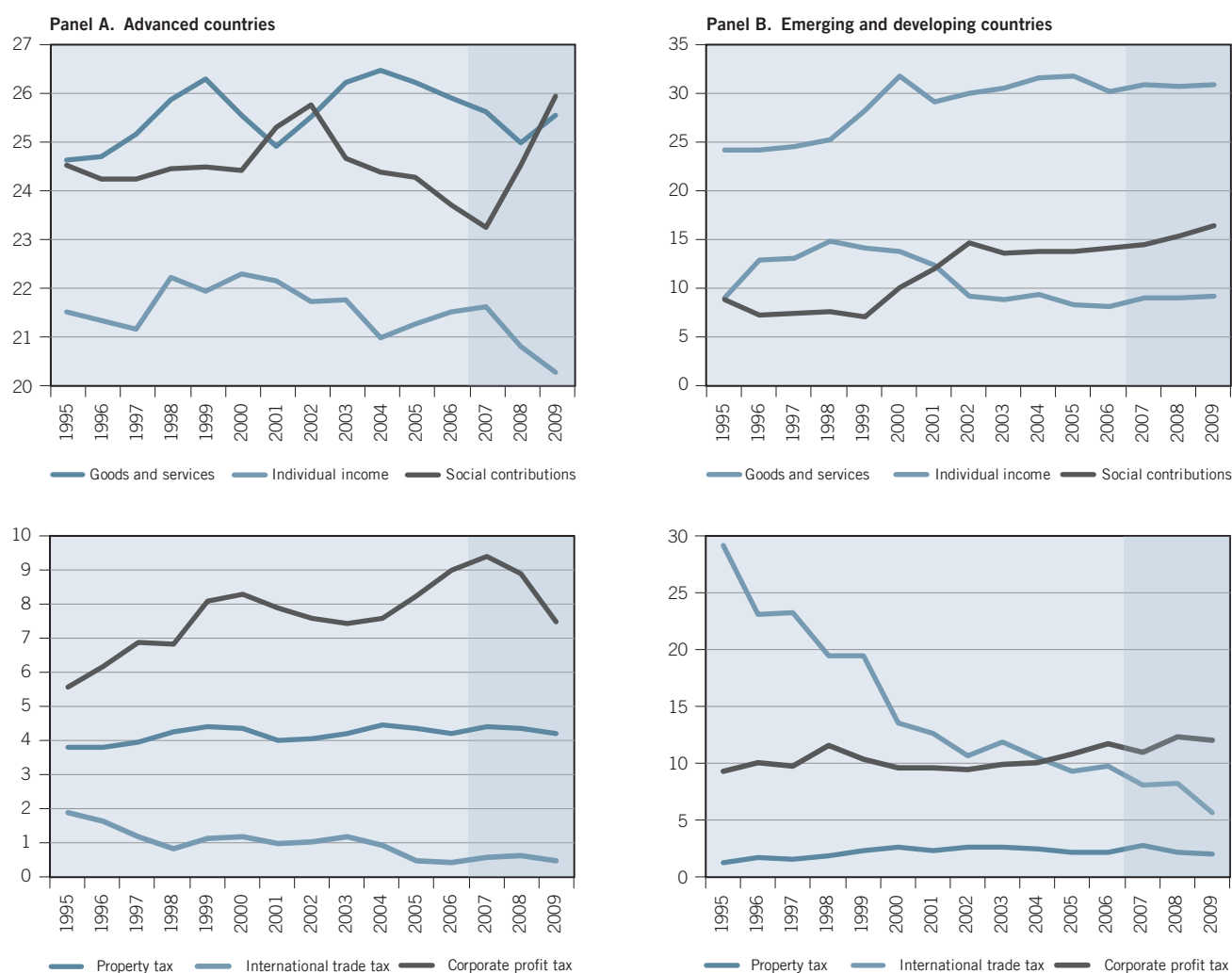
The financial crisis brought about two shifts in structure. First, there has been a spike in the contribution of goods and services taxes to government revenue (which increased by 1 percentage point between 2008 and 2009). Second, there has been an important decrease in the contribution of taxes on income and profits, linked to the decline in corporate income during the crisis. The decline in income tax was partially compensated by increases in VAT, as well as higher social contributions – however, this was not sufficient to keep total revenues from falling significantly as VAT revenue decreased in absolute terms in most of the advanced countries.

... while the major sources of revenue in emerging and developing countries have shifted.

The tax structure in emerging and developing countries (figure 5.3, panel B) has undergone considerable change over the past 15 years as a result of structural transformation and economic liberalization. First, the sum of these tax sources represented over 81 per cent of total revenue in 1995, but by 2007 had declined to around 75 per cent. This was due to the increasing importance of other sources of government revenue (including grants and aid given by foreign governments or multilateral institutions and income derived from State activities). Second, there was a very large net decline in the share of revenues from international trade taxes (mainly as a result of trade liberalization and elimination of tariffs), from close to 30 per cent of total revenues in 1995 to only 8 per cent in 2007. Finally, there has been a significant increase in revenues from goods and service taxes (from 24 per cent total tax revenue in 1995 to 31 per cent in 2007).

2. Individual income taxes and corporate income taxes are analysed separately in this section although they belong to one broad group.

Figure 5.3 Sources of revenue (percentage of total government revenue)



Source: ILS calculations based on the IMF (2011), and OECD.Stat Extracts.

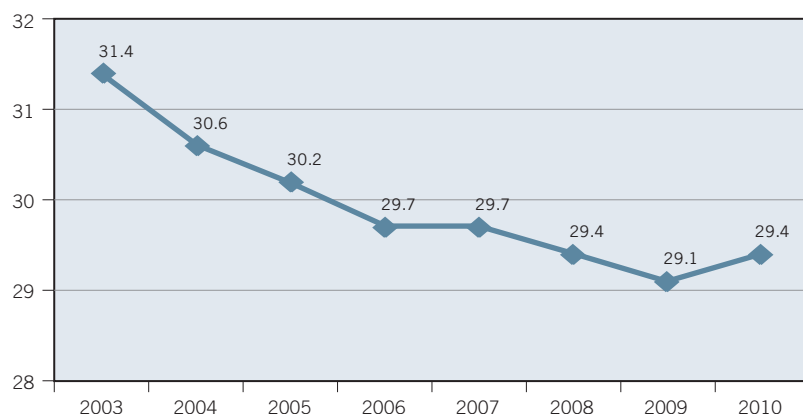
Social contributions and corporate tax revenues are also increasing in importance, but the contribution from income tax has been fairly stable at around 10 per cent of total revenue, and the contribution of property tax is negligible at 2 per cent of total revenue. In general, the increase in government revenues is mainly linked to the increase in the tax base, improvements in tax collection efficiency, more strict compliance, increases in tax rates and new forms of taxation.

The broad trends mask a number of changes: first, top personal income tax rates have tended to decline...

Top personal income tax rates have declined globally, from 31.4 per cent in 2003 to 29.1 per cent in 2009 (figure 5.4), as many governments decreased the top income tax rates due to the cyclical boom during the late 1990s and the subsequent improved budgetary positions leading into the 2000s (Hemmelgarn and Nicodeme, 2010). Even as individual income tax revenues started to decline, the top tax rates were not increased.

In the advanced economies, it has been shown that substantial revenues can be generated by relatively small tax increases for higher income groups (Atkinson et al., 2010). For example, in the OECD countries, the richest 10 per cent of the

Figure 5.4 Top personal income tax rate — world average (percentage)



Source: ILS calculations based on KPMG (2010).

population pay on average 31.6 per cent of the total government taxes (OECD, 2008a); while in the United States the top earners contribute 45 per cent of total taxes, or 70 per cent of all federal income tax (Tax Foundation, 2010).

Governments in developed and developing economies have started to increase the top personal income tax rates, owing to the considerable revenue loss due to the financial crisis (e.g. France, Greece, Ireland, Jamaica, Mexico, Portugal and the United Kingdom, among others). However, some countries maintained their top personal income tax rates; while some countries (such as Denmark, Hungary and Malaysia) even decreased the rate as part of demand-stimulus policies.

... second, corporate tax rates have tended to decline as well ...

On average, corporate tax rates – both statutory and effective – have exhibited a decreasing trend, from 29.5 per cent in 2003 to 25 per cent in 2010 (figure 5.5). Some analysts argue that this trend reflects attempts to improve the business climate, improve competitiveness and attract foreign capital (Zodrow and Mieszkowski 1986). Other authors (Genschel and Schwarz 2011), however, find that high taxation does not necessarily discourage foreign direct investment (FDI) – such as in Denmark (where public infrastructure, access to new technology, a well-educated labour force and social and political stability play an important role). With this in mind, some emerging economies have ended the practice of granting favourable tax treatment for foreign firms by unifying tax rates – through the lowering of domestic rates and increase of foreign rates. China, for example, has introduced a unified corporate tax rate of 25 per cent (see box 5.1).

... third, VAT has become a major source of tax revenues, notably in emerging and developing economies ...

The importance of VAT in generating government revenue is higher in emerging and developing countries (35 per cent of total tax revenues) than in advanced countries (26 per cent), and these values have remained stable over the past ten years. However, the world average VAT rates have been decreasing since the beginning of the 2000s. In 2005 it was around 16 per cent, which decreased to 15.4 per cent in 2009.

Figure 5.5 Trends in corporate tax rates (percentage)

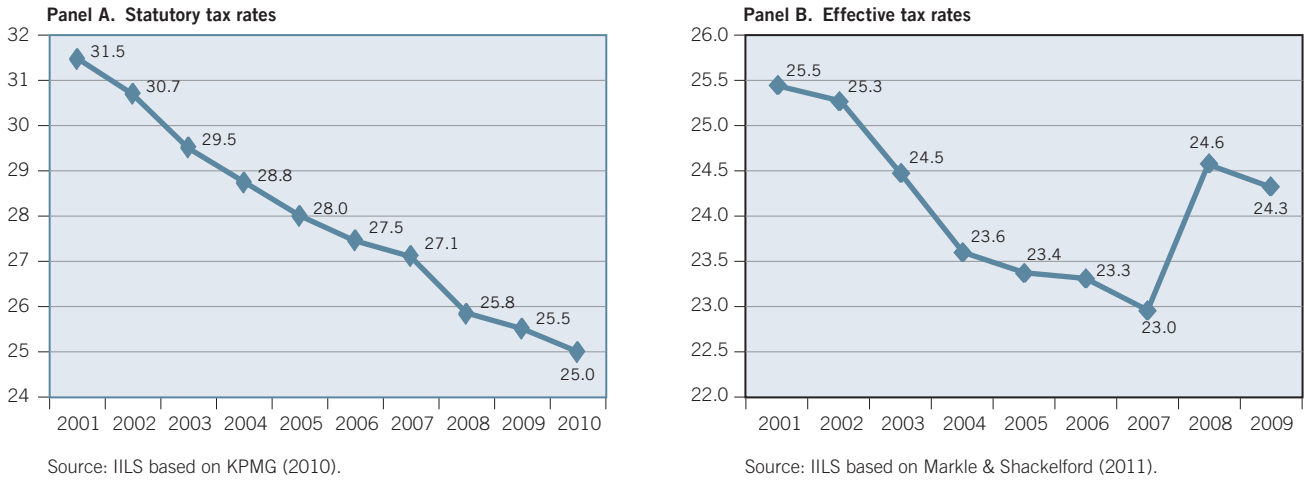
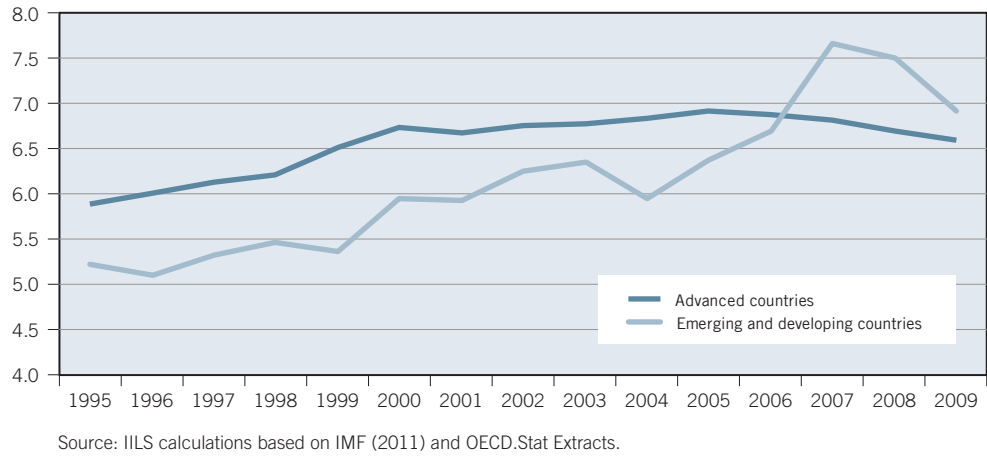


Figure 5.6 VAT revenue (percentage of GDP)



As a percentage of GDP, VAT revenue has also been increasing in both advanced and emerging countries (figure 5.6). It represented 5.9 per cent of GDP in advanced countries in 1995, increasing to 6.9 per cent in 2007, but slightly decreasing to 6.5 per cent in 2009 as result of the financial crisis. In the emerging and developing countries, it represented 5.2 per cent of GDP in 1995, increasing to 7.7 per cent in 2007 (surpassing the advanced countries), but declining slightly in 2009 to 7 per cent.

A principal issue with regard to VAT is that of progressivity. Since, VAT is normally passed on to the consumer through price increases, some argue that the poorest are hit harder than the rich in terms of its incidence, and therefore it is a regressive tax.³ There have been attempts by some countries to deal with this regressivity by eliminating or lowering VAT rates on basic consumption items, which are generally consumed by the poor, while luxury items are surcharged (see box 5.2). Such a multiple-rate VAT may be difficult to implement and monitor in some emerging and developing countries, therefore in these countries it might be

3. This is because the VAT increase may be passed on to the consumer through price increases. For example, Viren (2009) shows that two thirds of the VAT is borne by the consumer.

Box 5.1 China's tax revenue supported by foreign companies

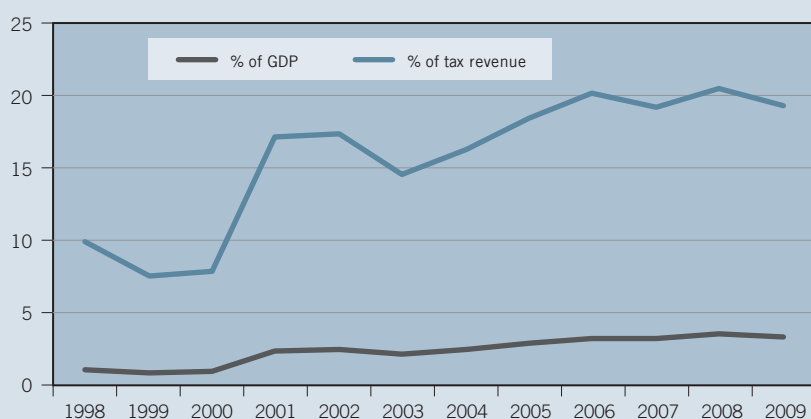
China has played an important role in international tax competition. In the late 1970s, when it opened to the world market, basic legislation was created in order to attract and maintain foreign investment. The government provided foreign invested enterprises with more favourable tax treatment than domestic enterprises in the form of lower rates (15 per cent, instead of 33 per cent for domestic enterprises), tax holidays and exemptions. During this period, FDI increased from less than US\$500 million in 1982 to nearly US\$160 billion in 2007. The inflow of FDI has had a positive effect on economic growth by providing additional capital and improving employment. Accordingly, in China the large FDI has helped foster the country's economic development.

Such inequitable tax policies, however, also led to unfair competition and provoked evasive tactics, such as the phenomenon of "fake foreign capital", whereby domestic invested enterprises transferred their capital to other countries and reinvested it in China to obtain preferential treatment. At the same time, corporate tax revenue was becoming an increasingly important component of total tax revenue (see figure 5.7). Indeed, it is estimated that almost one-third of total FDI in China was provided by domestic companies registered abroad (van der Hoek et al., 2008), mainly in Hong Kong (UNCTAD, 2007), but also tax havens such as the Cayman Islands, Samoa and the United States' Virgin Islands.

Due to pressure from the World Trade Organization and domestic enterprises the country has begun to address these issues. In 2008, corporate tax rates for domestic and foreign companies were unified to one rate of 25 per cent and most of the earlier preferential treatments were eliminated,⁴ essentially making China's tax laws more in line with international standards (Garnant, 2007).

It is still too early to determine the effects of these developments, but the policy should go some ways in reducing tax avoidance and tax evasion. With regard to FDI, it is possible that the inflow of foreign capital may be shifted towards more innovative sectors, such as high and new technologies, which are supported by the Chinese Government and still receive a preferential tax rate. Ultimately, this may positively affect the growth rate of the Chinese economy (van der Hoek et al., 2008). It should also be borne in mind that there are also other non-tax factors which keep China as an attractive destination for FDI, such as the growing domestic market, low labour costs and the availability of trained workers, which can ensure the continuity of foreign capital inflows despite the increase in tax rates.

Figure 5.7 Corporate tax revenue as percentage of total tax revenue and GDP



Source: China Statistical Yearbook 2010.

4. However, this tax rate can be reduced to 20 per cent for small, low profit enterprises and to 15 per cent for some enterprises involved in the industries supported by the government such as high and new technology enterprises. There are also some incentives for infrastructure, agriculture, environmental protection and energy saving industries (Huang and Mou, 2007).

Box 5.2 A more progressive (or less regressive) consumption tax: Lessons from Canada

Background

On 1 January 1991, Canada implemented the Goods and Services Tax (GST), a multi-stage tax similar to the value added tax (VAT). The GST replaced the Manufacturers' Sales Tax (MST), a single-stage tax which had been criticized for its regressivity and for its "cascading" effect (items were taxed repeatedly as they moved from production to final retail sale) (Bird and Gendron, 2009). The GST is complemented by provincial consumption taxes. Initially, the GST rate was 7 per cent, but it was eventually reduced to 5 per cent in 2008. The combined tax rate varies from 5 per cent in the province of Alberta to 15 per cent in Nova Scotia. Despite its complexity, the Canadian GST presents the features of an innovative tax as it reduces the burden for low-income households.

"GST package"

In an attempt to increase the progressivity of the GST, the Canadian federal Government has included in the design of the consumption tax an exemption for certain items and implemented a refundable tax credit to compensate low-income households for the increase in prices of goods and services:

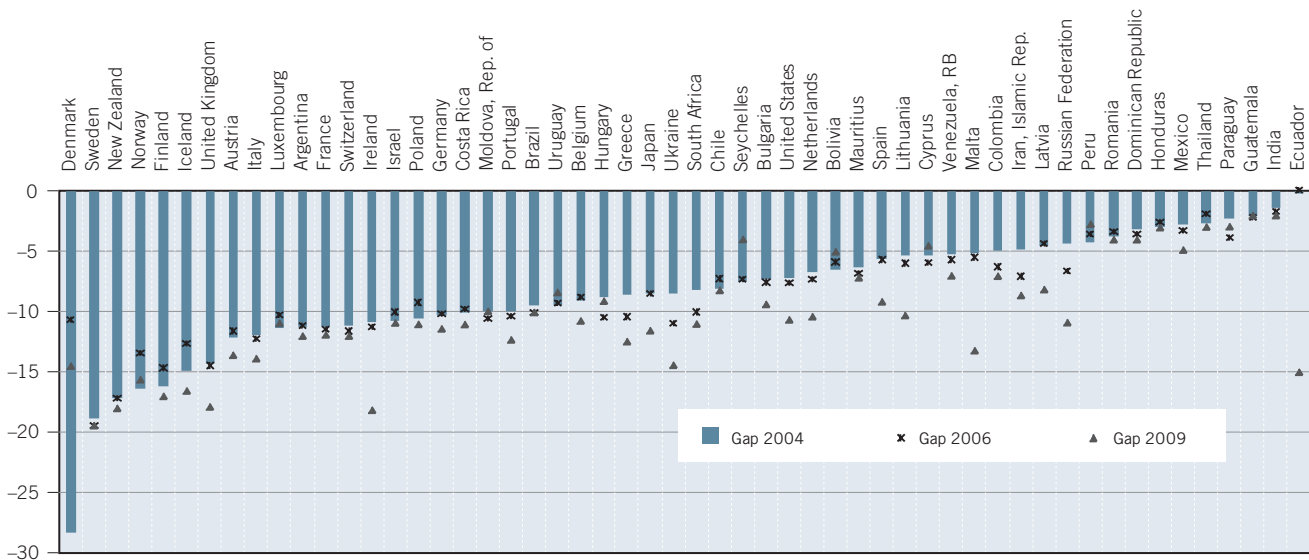
- The GST does not apply to basic groceries, health and medical care, education, day care, legal aid services, residential rents, financial services, municipal services and passenger ferries. This approach makes the GST more progressive because the tax exemption is targeted at products that represent a large share of low-income households' budgets.
- The Canadian Government has implemented a refundable tax credit, which is a quarterly payment that helps low- and lower middle-income households offset all or part of the GST that they pay. In other words, the Government pays eligible households a cash rebate for their GST, so that households at the subsistence income level pay no net consumption tax, but the rate of the rebate reduces as household income increases. (Auerbach and Hassett, 2005). In 2010, the GST credit was C\$258 for an eligible adult and C\$133 for each dependent child. To be eligible for the tax credit, net income should be below C\$40,681 for a single person and C\$48,401 for a family with two children. In addition to the federal GST credit, some provinces provide tax credits for their own consumption tax.

Distributional effect

By including the tax credits in the analysis, Grady (1990) demonstrated that the GST was progressive for families with incomes under C\$35,000 per year and proportional for those with higher incomes. Those results were supported by a more recent study by Curtis et al. (2010), which showed that families with net incomes below C\$30,000 ended up with tax credits that outweighed the increase in expenditure necessary to maintain their welfare level.

Thus, the tax credit has proved to be not only a good instrument to relieve the burden of indirect taxation for lower-income groups (especially when coupled with tax exemptions for necessary products), but also a redistributive tool.

Figure 5.8 Financing gap of social expenditures (percentage of GDP)



Source: ILS calculations based on the IMF (2011) and World development indicators (2011).

Figure 5.9 Average effective tax rates in OECD countries for a single person with no children (percentage)



Source: ILS based on OECD.Stat Extracts.

more efficient to implement a single-rate VAT, which would allow governments to use the widest base possible and thus maximize tax revenue.

... and fourth, social contributions play an increasingly important role in government revenues ...

Social protection spending (healthcare, old-age pensions, unemployment benefits, child/family allowances, social assistance to low-income households) is either financed through general tax revenue or through a tax generally paid by employers or employees (may also include self-employed). Since 2007, there has been a sharp increase in the importance of social contributions to government revenue in advanced and emerging countries. However, the importance relative to GDP, in the advanced countries (in spite of considerable fluctuations over the period), remained at 8.9 per cent of GDP in 1995 and in 2007. Owing to the financial

crisis, it sharply increased to 9.3 per cent in 2009. As for the emerging and developing countries, it increased steadily from 2.8 per cent of GDP in 1995 to reach 4.8 per cent in 2009.

The financing gap for social expenditures also increased dramatically, as expenditures outpaced revenue enhancements. Between 2004 and 2006, the financing gap declined or remained stable in the vast majority of countries with available data (figure 5.8). But, following the financial crisis, the gap increased from 8.6 per cent of GDP in 2006 to over 10 per cent in 2009. There are significant intercountry variations, but for the most part the emerging and developing countries have higher financing gaps.

... raising the issue of tax progressivity.

The average tax burden, including social security contributions, for all groups of the population can be shown by calculating the average effective tax rate by income group. In general, the average tax burden has declined across all income groups (see figure 5.9). However, the social security contribution rates for each group remained relatively stable over the 2000 to 2010 period. The rates are around 12 per cent of income for the lower and middle class earners and 10.5 per cent for the upper income earners. This shows that the decline in tax burden has been driven by a decline in income tax, rather than social contributions, particularly at lower income levels, where the social contribution tax rate is indeed almost as high as the income tax rate. For higher income groups, the social contribution is less than half the income tax rate. This diminishes the progressivity of taxes and has led some countries to revisit financing strategies for social protection.

In general, there is a strong relationship between social security contributions and employment. Social security contributions are an additional tax burden on workers and employers. This in turn affects employment levels, as will be discussed further in Section B. Lowering social security contributions for workers (and employers) would certainly lower the tax burden, but alternative means of financing would be needed to keep the system solvent.

B. Tax burden and employment

There is an extensive literature on the employment impacts of taxation ...

In light of the growing unemployment issues in many advanced countries, there is intense debate on the effects of tax policy on growth and employment. It is often argued that taxes (progressive taxes in particular) have a depressive effect on economic growth and that a more equitable tax structure can only be obtained at the expense of a loss in economic growth and employment. This imposes a trade-off between equity and efficiency objectives.⁵ Based on this argument, it would be better to first stimulate earning incentives for high-income earners and then let the returns trickle down to low-income earners.

But, such an argument would be premature, since it is indeed difficult to assess the impact of tax reforms on employment. First, a change may affect several factors at the same time, some having positive effects and others having negative effects. Second, the existence of other policies or institutions (such as a minimum

5. See for example Browning and Johnson (1984); Røed and Strøm (2002) and Li and Sarte (2004).

wage or trade unions) could affect the outcome (OECD, 2010a). Finally, different taxes may have different macroeconomic impacts after a policy change.

- It is argued that *personal income taxes* impact employment from the supply side, by adversely impacting on a worker's decision to participate in the labour force or on their determination of hours worked (Bovenberg, 2006; Sandmo, 1983). However, much depends on the alternative options available for labour market participants, including the generosity of the country's benefits. Additionally, empirical evidence suggests that for the most part, for a majority of workers, labour supply is almost inelastic (Salanié, 2003; Røed and Strøm, 2002).
- *Corporate income taxes*, are also purported to have an adverse impact on investment decisions since they increase the cost of capital and reduce the after-tax return (OECD, 2010a). Moreover, corporate income taxes are either borne by workers, consumers or owners of capital (shareholders). Thus, an increased burden on these groups might affect employment through a reduction in output or productivity or an increase in factor substitution (resorting to cheaper labour) and a reduction in wages (Bettendorf et al., 2007). But other studies show that corporate tax rates represent only a small part of investment decisions and are much more related to growth of demand (Gerson, 1998) and (Jackson, 2008).
- *Value added taxes* and various consumption taxes have important repercussions on employment since they are mainly transferred to workers and consumers. For example, it is estimated that these taxes increased the tax burden on workers by 8 per cent in OECD countries (OECD, 2010a). Therefore, any increase would lead to a decrease in real disposable income, which could have adverse impacts on aggregate demand and consequently the demand for labour.
- It is argued that *social contributions* (for employers) increase the cost of labour and therefore discourage firms from hiring, thus increasing unemployment (see box 5.3). By reducing this cost (through employer tax credits), firms may be given the incentive to hire more workers (or at least not to lay off workers during downturns). Additionally, a reduction in employee social contributions can increase employment and therefore – by increasing the disposable income of workers – ultimately increase aggregate demand and stimulate further employment gains.

... but, studies show that a more progressive tax structure can be obtained without a loss in employment and efficiency ...

Numerous studies have shown the fallacy of the “equity over efficiency” argument, from both theoretical and methodological perspectives (Røed and Strøm, 2002). Moreover, empirical evidence shows that growth and progressive taxation can coexist. A good example is the “Glorious Thirty”, the period after the Second World War until the mid 70s. During this period marginal rates were very high in many countries, but growth was also strong. Based on more recent data, there is also no evidence that progressive taxation has an adverse impact on growth or employment (see figure 5.11).

Assuming that low-income earners have a higher marginal propensity to consume than do high-income groups, a more progressive tax system fosters greater

Box 5.3 Unemployment and labour taxes

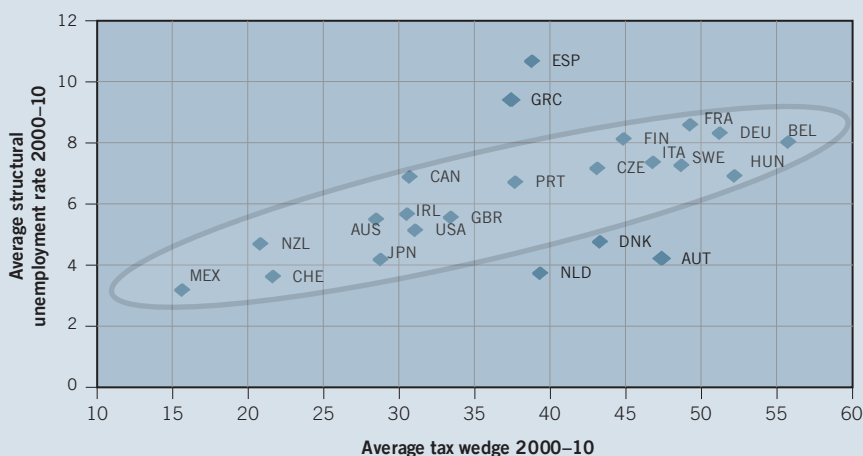
It is argued that high labour tax wedges – defined as the sum of personal income tax and employee plus employer social security contributions together with any payroll tax less cash transfers, expressed as a percentage of labour costs (OECD, 2007a) – are one of the causes of higher unemployment rates in some OECD countries. The rationale behind this is that a higher tax wedge reduces the demand for labour because it increases the cost of hiring a worker.

The empirical literature on the subject shows a strong link between unemployment and labour taxes. Daveri and Tabellini (2000), for example, observed that the 14 percentage point rise in labour taxes between 1965 and 1995 in the European Union translated into a 4 percentage points increase in unemployment. García and Sala (2008) found that not only the level of tax wedge matters, but also the composition of this wedge. They showed that in continental European countries, the more labour taxes are supported by employees, the higher is the unemployment rate. In addition, the employment effect of labour taxes is not the same between low-skilled and high-skilled workers. Kugler and Kugler (2003) analysed the effect of labour tax increases in Colombia over the period 1980 to 1990 and found that it affects more negatively employment levels for low-skilled workers than high-skilled workers.

Using OECD data for the period 2000 to 2010, figure 5.10 shows that countries with a higher labour tax wedge have in general higher structural unemployment. The latter is measured by the rate of unemployment consistent with constant price inflation (non-accelerating inflation rate of unemployment; NAIRU). The rationale for measuring structural unemployment comes from the argument that in the long run there is no trade-off between inflation and unemployment, and that unemployment depends solely on structural variables (e.g. demographic changes or tax wedge), while inflation is a purely monetary phenomenon (OECD, 2000). It also neutralizes the cyclicity of crises.

Figure 5.10 shows the average tax wedge in selected OECD countries (all income categories, households without children) and the average structural unemployment rate for the period 2000 to 2010. The upward trend supports the argument that higher labour tax is linked to higher structural unemployment. There are five countries outside the coloured area, namely Austria, Denmark, Greece, Netherlands and Spain. At the top, Greece and Spain have very high structural unemployment rates, which clearly reflect the impact of other structural variables other than the tax wedge. At the bottom, Austria, Denmark and Netherlands have relatively low structural unemployment rates, which may be the result of their comparatively flexible labour market.

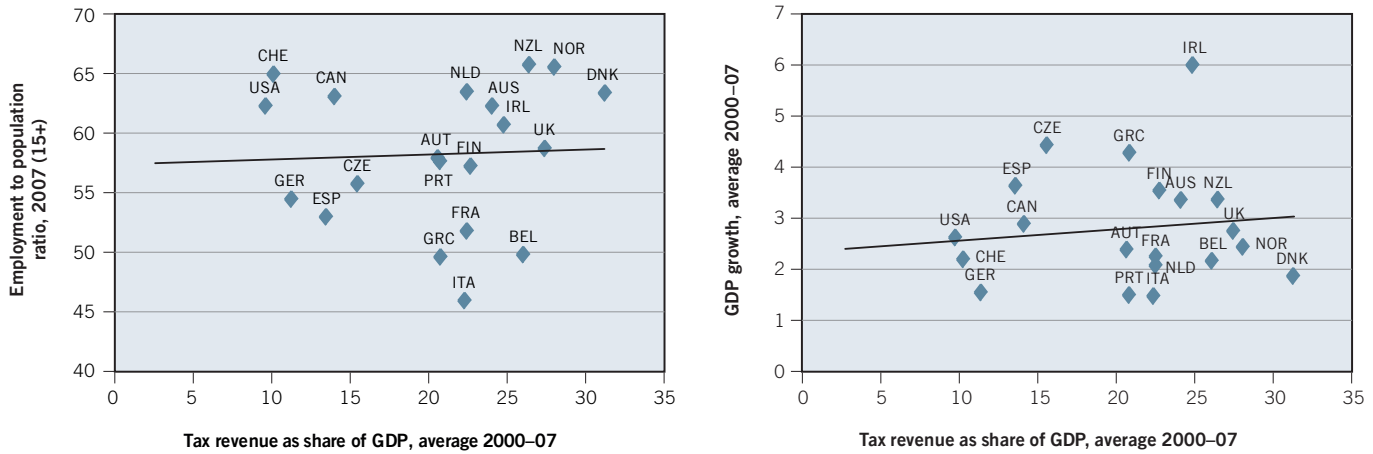
Figure 5.10 Tax wedge and structural unemployment in OECD countries



Source: ILS calculations based on OECD.Stat Extracts.

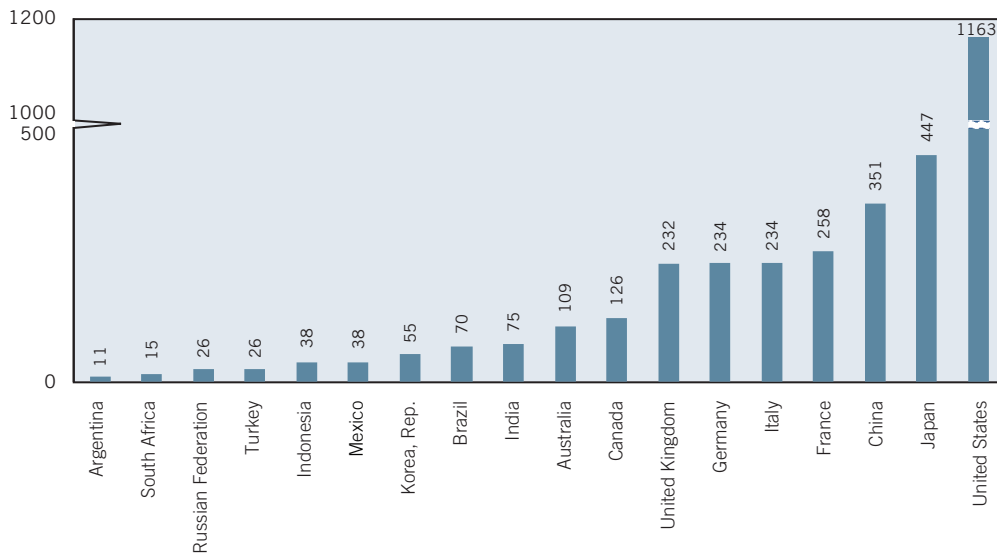
Following this analysis, countries (notably those in the top right corner of the graph) should pursue reforms aimed at decreasing labour tax wedges in order to reduce structural unemployment. With many of these countries facing high deficits in the aftermath of the crisis, the reduction in labour taxes should be compensated by other revenue-raising reforms. Heijdra and Ligthart (2009) showed that cutting labour taxes and increasing income tax so as to keep the marginal tax wedge constant would effectively reduce the unemployment rate while increasing public revenue. The argument for financing social protection from general taxation instead of labour taxes has also been put forward by the OECD in its recent Employment Outlook (OECD, 2011). It would allow countries to switch to a larger tax base and would at the same time reduce the tax wedge on formal labour, which may in turn encourage formal-sector job creation (OECD, 2007a). This has already been done with success in Brazil and South Africa.

Figure 5.11 GDP growth, employment and tax revenue as a share of GDP



Source: ILS calculations based on World data Bank.

Figure 5.12 Revenue generation with a 3 per cent wealth tax, 2010 (US\$ billions)



Source: ILS calculations based on Shorrocks et al. (2010).

demand and helps render the economy more dynamic. Particularly during slumps in the business cycle, a progressive tax might act as an economic stabilizer since it reduces fluctuations in after-tax income and consumption (Weller and Rao, 2010). Moreover, by redistributing income, progressive taxation may act as an implicit credit market – workers who cannot easily obtain credit are provided with extra resources through higher after-tax income, alleviating credit market distortions (Bovenberg, 2006).

C. Broadening the tax base: Selected options

Given the complexity of dealing with many of the main tax sources mentioned above, and the consequent employment impacts, it has been suggested that alternative sources of taxation should be explored. Although each of them on their own represents a small percentage of tax revenue, countries may want to give consideration to some of these options as a means of financing pro-employment programmes and reducing the tax burden on workers. Additionally, the tax sources outlined here would not only serve to redistribute income towards workers without adversely impacting the productive base, but could also help stem some of the excessive risk taking that has led to market volatility.

Wealth and capital gains taxation

Individual income taxes do not take into account the wealth or assets of an individual. It has been shown that the introduction of a wealth tax – or a small percentage increase in the rate where such a tax already exists – would generate substantial revenues for governments. For example, data show that the richest 10 per cent of households own over 70 per cent of the global wealth (Davies et al., 2010) – and a temporary 3 per cent wealth tax on these individuals (similar to recent proposals in Europe) would generate US\$4 trillion in global revenue in 2010. In the G20 alone, US\$3.5 trillion could be generated, with the bulk coming from the United States (figure 5.12). This additional revenue would have a significant impact on debt reduction, with few adverse employment effects. For example, the United States would generate US\$1.2 trillion (its public debt level is around US\$9 trillion), Indonesia would generate US\$38 billion (while its public debt is US\$18.4 billion) and France would generate US\$258 billion (with a public debt of US\$1.8 trillion). Additionally, a wealth tax would be progressive and so could serve as a good redistributive instrument.

Yet, very few countries have wealth taxes. France, India, Norway and Switzerland have some form of a tax on wealth – however, it varies considerably between the countries. Most recently, Hungary introduced a wealth tax in 2010, while Spain is planning to reintroduce one. An even greater number of countries have all but abolished such taxes, including Austria, Denmark, Finland, Germany, Greece, Iceland, Italy and Sweden (Ristea and Trandafir, 2010).

Capital gains tax (CGT), though somewhat controversial, can also be seen as a good option to increase public revenues. In many countries the tax, which is generally payable on the gains from the sale of assets (such as financial assets or property), is levied at a flat rate that is lower than the income tax rate. The rationale for this is that a tax on capital gains acts as a disincentive to investment and can lead to lower capital gains (Hungerford, 2010); in this respect, lower CGT favours entrepreneurial activity and capital formation by diminishing the cost of raising capital for investors. However, empirical evidence does not fully support this idea as fluctuations in the tax rate have only a limited effect on gain realization decisions in the long term (Gentry, 2008). Additionally, the argument suggests that gains realized due to tax cuts are reinvested, which is not necessarily the case. Indeed, the decrease in or abolition of CGT creates opportunities for tax evasion since it might encourage the tax payers to convert ordinary taxable income into capital gains (OECD, 2010a) and to make risky investments for tax benefit reasons.

Also, as it is generally the case that higher income households receive more capitals gains, instituting such a tax would make the tax system fairer and more

progressive. For instance, in the United States, “over half of the assets that can generate taxable capital gains are owned by the richest 5 per cent of households” (Hungerford, 2010).

Estimates of revenue generation from implementing or increasing the CGT rate have been high. In 2009, it was estimated that the introduction of a broad-based CGT in New Zealand would raise NZ\$9 billion (US\$7 billion) a year.⁶ In the United States, it was projected that an increase in capital gains and dividend tax rates by 15 to 20 per cent would bring in an additional US\$5.4 billion in 2011, US\$12.2 billion in 2014 and US\$19.9 billion in 2019.⁷ It should also be noted that revenues generated by CGT could also be used to finance the gap in social security schemes or to decrease the burden on labour income. For example, in France capital gains are subject to social contributions, and the rate has been increased from 12.3 per cent to 13.5 per cent in 2011.

Taxation of financial transactions and activities

In the aftermath of the crisis, taxing the financial sector has gained support in both political and academic spheres. Such taxes could pursue a wide range of objectives, including correcting for negative externalities stemming from the activities of the financial sector (e.g. excessive risk taking, existence of too-big-to-fail institutions) while providing governments with an additional source of revenue to compensate for the fiscal cost of the crisis.

There is a dual economic rationale underlying the implementation of a financial transactions tax (FTT). First, it would help fight excessive short-term speculation in the stock and commodity markets, which produces price volatility, and second, it would allow governments to raise substantial revenue with a relatively low rate since the potential tax revenue would be large. Moreover, the tax would be imposed on a relatively small number of actors, making it very easy to administer.

Many countries (especially within the G20) currently have some sort of financial tax (*ad valorem* tax), which raises revenue of around 0.5 per cent of GDP (Matheson, 2011). For example, the sale or buying of company shares is taxed in China, India, Indonesia, Italy, the Republic of Korea, South Africa and the United Kingdom (see Box 5.4). Most countries have tended to decrease such taxes overtime in an attempt to decrease the cost of capital and increase the competitiveness of the domestic financial sector. For example, the United States dropped its stock transaction tax in 1966, Germany in 1991 and Japan in 1999, while France dropped its share transaction tax in 2009.

If the tax were to be implemented globally and cover a wide range of financial transactions, it would provide governments with a fairly large amount of revenue. Although, studies have found that the tax would lead to a decline in financial trading, Schulmeister (2011) found that a general FTT of 0.05 per cent for the world economy as a whole would amount to 1.1 per cent of nominal world GDP. The revenues would be even higher in North America and Europe, at between 1.5 per cent and 1.8 per cent of GDP.

Another proposal is the implementation of a financial activities tax (FAT) that could be levied on the sum of profits and remuneration of financial institutions,

6. See <http://www.stuff.co.nz/national/politics/5238989/Goff-not-commenting-on-capital-gains-tax>

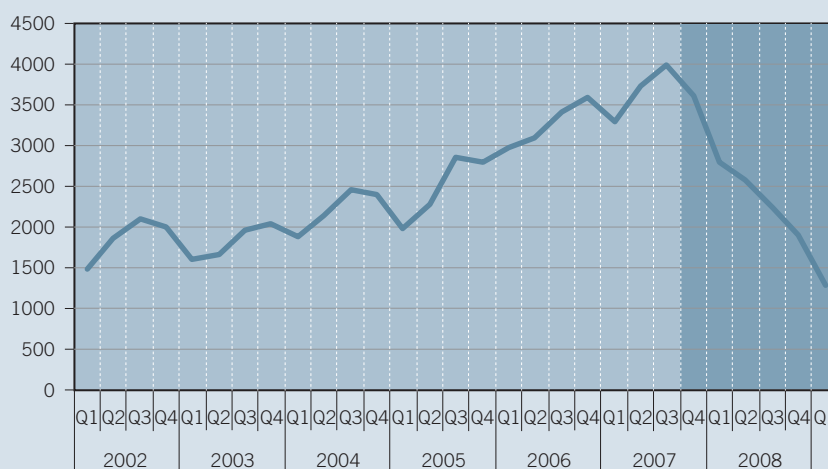
7. See http://www.huffingtonpost.com/2009/02/26/obama-wants-higher-capita_n_170237.html

Box 5.4 The United Kingdom stamp duty

The United Kingdom's stamp duty is a tax on the registration of ownership of a financial asset. The name originates from the official stamp that was applied to financial instruments when transferred from one owner to another. The Stamp Duty Reserve Tax (SDRT) is levied at a rate of 0.5 per cent on electronic share transactions at the London Stock Exchange and is chargeable on shares from United Kingdom companies, foreign companies with a share register in the United Kingdom and on options to buy shares.

In general, the duty is a very effective way to raise revenue for the Government, notably because the tax is imposed on a relatively small number of actors, making it relatively easy to administer. The collection of the SDRT is done via the securities settlement system operated by Euroclear called CREST and the tax is automatically levied on every transaction.

Figure 5.13 Stamp duty revenue (£ million)



Source: ILS based on HM Treasury – UK National statistics.

The United Kingdom's inland revenue service reports that the tax on share transactions is administratively the most efficient tax to collect. Its cost is less than 0.05 per cent of the revenue collected. By comparison, the administrative cost of collecting the income tax is more than ten times as high, at 0.7 per cent of revenue collected (Baker, 2010). The experience of the United Kingdom with its stamp duty contradicts the often-repeated claims that financial taxes would be difficult to administer.

Stamp duty revenues are a function of share prices, but also of share quantity and turnover. Thus the revenue is very dependent on the development of the stock market. As shown in figure 5.13, revenues from stamp duties have increased since 2002 and the United Kingdom Government collected about £4 billion (US\$6 billion) in 2007. But with the 2008 financial crisis, stamp duty revenue decreased drastically and in the first quarter of 2009 it amounted to only £1.3 billion (US\$2.1 billion).

Over the long term, one possible threat to the United Kingdom's stamp duty is the growing importance of financial derivatives, which are not subjected to the tax (Schulmeister et al., 2008). The United Kingdom's treasury could solve this problem by broadening the tax to include all financial transactions. The potential revenue from a general FTT in the United Kingdom would be extremely high due to the traditionally strong position of the London marketplace. Schulmeister (2011) calculated that a general FTT in the United Kingdom would amount to roughly 8.6 per cent of GDP (US\$193.9 billion). Moreover, if the FTT was introduced in other European countries at the same time as in the United Kingdom, notably in Germany, the second most important financial centre, it would avoid a significant "emigration of trading" (Schulmeister, 2009).

i.e. the tax would apply to the value added of the financial sector. The design of the FAT could vary according to the objectives pursued. If governments decided to include all remunerations and profits, the FAT would effectively be a tax on value added. As such, it would help offset the tendency for the financial sector to be too large (IMF, 2010). But if governments designed the tax to include only remunerations and profits above a certain level, the FAT would become a tax on “excess returns in the financial sector” (IMF, 2010). Thus, it would help in mitigating excessive risk-taking by the financial sector (IMF, 2010).

Using IMF data for a sample of 15 European Union countries, the European Commission (2010) found that the implementation of a FAT with a relatively low 5 per cent rate would generate between €11.1 billion (US\$15.8 billion) and €25.9 billion (US\$37 billion) in tax revenues depending on the design. However, the implementation of a FAT would need to be coordinated with existing regulations across countries, especially for closely integrated markets in order to avoid tax and regulatory arbitrage and at the same time promote a level playing field (IMF, 2010).

Environmental taxes

Environmental taxes are generally levied on the consumption of energy-intensive goods as a means of discouraging environmentally harmful activities. It also seeks to change behaviour by encouraging polluters to develop and adopt cleaner, more efficient technologies, and thus pay a lower tax.

However, in addition to the direct environmental impact, such taxes were also conceived with another purpose in mind. In the 1990s, when environmental tax reforms were implemented in some European countries (such as Denmark, Germany, the Netherlands and the United Kingdom), the main idea was to shift the tax burden from labour to the users of natural resources. Although the tax in this sense is revenue neutral, it generates additional revenues through an increase in the tax base, which makes it possible to reduce taxes on income and social security contributions. The result is therefore a double dividend, as the tax has a positive effect on both the environment and employment.

Revenues generated from environmental taxes reached 2.3 per cent of GDP in OECD countries in 2008. However, there is considerable space for improving revenue generation in some countries. For example, the European Environment Agency estimates that if Ireland were to apply environmental tax rates similar to those in Denmark and Norway, it would generate up to US\$6 billion in revenues in 2014. Additionally, in the United Kingdom additional revenue of US\$3 billion is expected due to the recent rise in the tax rate on oil producers from 20 per cent to 32 per cent.⁸ And although empirical studies carried out in Germany and the United Kingdom show that the impacts on employment have been small, there were no adverse employment effects (IILS, 2011; OECD, 2007). Additionally, the implementation of the tax succeeded in reducing the tax wedge and, more importantly, carbon dioxide (CO₂) emissions in a number of countries (see box 5.5).

Finally, the redistributive impact of environmental taxes may be called into question – since environmental taxes may constitute a greater burden on poor households. Indeed, electricity and water taxes are among the most regressive taxes as industries often benefit from special tax provisions while private consumers do not. Additionally, although private energy consumption is taxed more heavily

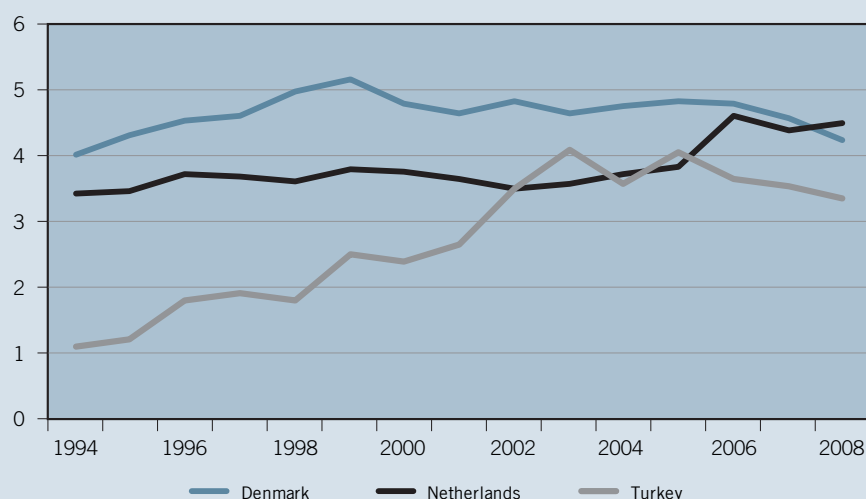
114 8. <http://www.hmrc.gov.uk/budget2011/tiin6133.pdf>.

Box 5.5 Environmental tax design

The revenue from environmental taxes has grown markedly in Turkey, from 1.8 per cent of GDP in 1998 to 3.3 per cent of GDP in 2008, reaching nearly 15 per cent of total tax revenue (OECD, 2010b). This places Turkey third, behind the Netherlands and Denmark, among OECD countries in terms of revenue from environmental taxation as a percentage of GDP (See figure 5.14). This strong growth in revenues can be explained by an increase in excise taxes on fuel and motor vehicles, which together represented 96.5 per cent of Turkey's total environmental revenue in 2007 (OECD, 2008b). The country has indeed the highest tax rate on petrol in OECD countries (OECD, 2010b) – but as most low-income households in Turkey do not own a car, the high tax rate on petrol has a progressive impact on overall income distribution (OECD, 2008b).

In Turkey the main purpose of the tax seems to have been revenue generation and not the protection of the environment. For instance, fuel tax rates do not necessarily encourage consumers to use more environment-friendly products since in some cases lower rates are applied to higher polluting fuels (Celikkaya, 2011 and OECD, 2008b). Moreover, between 1990 and 2005 Turkey's total emissions of greenhouse gasses increased by 84 per cent (from 170.1 million tonnes to 312.4 million tonnes).

Figure 5.14 Revenues from environmental taxes (percentage of GDP)



Source: OECD (2010b).

In contrast, the Netherlands not only generates revenues from its environmental taxes, it has also met many of its environmental objectives during the past decades: several sectors, such as the manufacturing and construction sector and agriculture, have made progress in reducing emissions of CO₂ – by 18 per cent and 28 per cent, respectively, between 1990 and 2007. Moreover, to tackle the issue of CO₂ emissions in transportation sectors, the Dutch Government is about to implement a new tax plan for cars, which will take effect in 2012: drivers will have to pay per kilometre to drive.

In Denmark, revenues from environmental taxes are also very high, and have significantly increased over the past decades: by 161 per cent between 1990 and 2009. While generating revenues, such taxes also contributed to the reduction of pollution. During the past decade, a substantial decline has been observed in both CO₂ to GDP ratios and CO₂ emissions per person (IILS, 2011). Moreover, in Denmark revenues from environmental taxation were actively used for shifting the tax burden. The amount of environmental tax revenue used to reduce labour income taxes was equivalent to over 6 per cent of total tax revenue in 2002 (while it was only 0.5 per cent of total tax revenues in the Netherlands in 1999), one of the highest amongst the European countries that undertook environmental reforms (OECD, 2007b).

than industrial activities, the latter pollute more (in Europe, about 80 per cent of total CO₂ emissions originate from production processes). This concern can be addressed by introducing tax exemptions for households (IILS, 2011) and reducing tax provisions for several industries. In this way, the main objective of implementing these taxes, which is the sanctioning of polluters, would also be respected.

Tax compliance and international coordination

Any tax reform will not achieve its potential unless tax compliance and regulation are strengthened and coordinated across countries. Tax evasion is a significant issue in both developed and developing economies, and has been at the origin of significant capital flows, especially from developing countries, thus significantly reducing tax revenues in those countries. It is estimated that illicit financial flows out of developing economies are between US\$850 billion and US\$1 trillion per year (Kar and Cartwright-Smith, 2009).⁹ This phenomenon is almost equally harmful for developed countries, as the European Parliament estimates that tax evasion costs Europe between €200 billion and €250 billion (US\$280 billion and US\$350 billion) every year.¹⁰ The most worrying concern is that this trend keeps growing: a study shows that “non-resident deposits, which are highly correlated with tax evading offshore deposits, grew at a compound annual rate of 9 per cent (in real terms) between June 1996 and June 2009” (Hollingshead, 2010).

Tax avoidance, as opposed to tax evasion (which is typically illegal), encompasses the numerous legal ways to substantially reduce tax costs. One of the techniques commonly used by multinational companies is transfer pricing or mis-invoicing, by which multinationals adjust their internal prices so that they can transfer profits offshore to low-tax jurisdictions, and shift the costs onshore where they benefit from tax deductions (Shaxson, 2011). It is estimated that transfer pricing alone costs the United States up to US\$60 billion annually (Gravelle, 2010).

Countries around the world are now attempting to implement stricter rules for tax compliance and are initiating international tax information exchange in view of increasing revenue. These are important steps for improving the transparency of the system.

To reduce tax avoidance in the European Union, in March 2011 the European Commission announced a project – the Common Consolidated Corporate Tax Base – that aims to harmonize the calculation of taxable incomes in the EU-25 area. The Commission estimates that such an agreement would reduce compliance costs by two-thirds and boost economic growth.¹¹ Nevertheless, the system is envisaged to be only optional and as such it may become another means for companies to reduce taxes.

Such examples show that international cooperation and mandatory schemes remain essential for policies to be effective. The G20 Finance Group provides such a forum for the implementation of measures, which can further fight tax evasion and tax avoidance.

9. Only one-third of this amount comes from criminal activities, two-thirds of it being cross-border transactions linked to tax evasion.

10. European Parliament resolution of 8 March 2011 on innovative financing at global and European level.

11. www.rte.ie/news/2011/0316/tax.html

Appendix A

Definitions of various taxes

Income, profits and capital gains taxes

Includes taxes on:

1. wages, salaries, tips, fees, commissions, fringe benefits and other compensation for labour services;
2. taxable portions of social security, pension, annuity, life insurance and other retirement account distributions;
3. interest, dividends, rent and royalty incomes;
4. capital gains and losses, including capital gain distributions of investment funds;
5. profits of corporations, partnerships, sole proprietorships, estates and trusts.

Property tax

Property tax includes taxes on the use, ownership or transfer of wealth. The taxes may be levied at regular intervals, one time only, or on a change in ownership. Taxes on property are divided into four categories:

1. Recurrent taxes on immovable property: Imposed on the use or ownership of immovable property (land, buildings and other structures), levied either on proprietors, tenants or both.
2. Recurrent taxes on net wealth: Taxes levied regularly on net wealth (value of a wide range of movable and immovable property).
3. Estate, inheritance and gift taxes: Taxes on transfers of property at death and on gifts.
4. Taxes on financial and capital transactions: Taxes on change of ownership of property, except those classified in (3). Included are taxes on the issue, purchase and sale of securities, taxes on checks and other forms of payment and taxes levied on specific legal transactions.

Taxes on goods and services

Taxes levied on the production, extraction, sale, transfer, leasing or delivery of goods and rendering of services. This includes: value added taxes; general sales taxes, whether levied at manufacture/production, wholesale or retail level; single-stage taxes; and cumulative multistage taxes, where “stage” refers to stage of production or distribution.

Taxes on international trade

These taxes include customs and other import duties and taxes on exports.

Social contributions

As described in Chapter 3, social contributions are actual or imputed receipts either from employers on behalf of their employees or from employees, self-employed or non-employed persons on their own behalf that secure entitlement to social benefits for the contributors, their dependants or their survivors. Social contributions are levied as a function of earnings, payroll or the number of employees. Social contributions have two elements:

1. Contributions to social security schemes (pension schemes): Employee contributions are either paid directly by employees or are deducted from employees' wages and salaries and transferred on their behalf by the employer. Employer contributions are paid directly by employers on behalf of their employees.
2. Other social contributions: Include actual and imputed contributions to social insurance schemes operated by governments as employers on behalf of their employees that do not provide retirement benefits. These may include health insurance, dependant or family allowances, loss of income for not being able to work (or unemployment insurance), death of main income earner, housing subsidies and education expenses.

Source: Based on IMF Government Finance Statistics Manual 2001.

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Effective employment policy under tight fiscal constraints¹



Main findings

- Countries have stretched their fiscal space in dealing with the consequences of the global crisis. In G20 advanced economies, public debt reached, on average, 79 per cent of GDP in 2011, compared with 56 per cent in 2007. In emerging economies, the figures are 40 per cent and 36 per cent, respectively. Ensuring fiscal consolidation has therefore become a major medium-term priority for a number of countries. At the same time, however, it is crucial for advanced economies to boost employment, and for emerging and developing countries to support quality jobs and social protection. These employment policies may require some fiscal spending in the short term, but the chapter shows that, if well-designed, employment policies will boost the recovery while at the same time supporting fiscal goals over the medium term. When complemented with an adequate tax base, as identified in Chapter 5, employment programmes are a crucial component of a strategy for sustainable recovery.
- The chapter is based on four simulations produced by the Global Economic Linkages model. First, it is shown that spending cuts that lead to an increase in unemployment will tend to erode the tax base, exert upward pressure on social budgets and thus significantly reduce – and in some cases entirely eliminate – the fiscal savings associated with the spending cut.
- Second, so-called active labour market policies (ALMPs) – which effectively support job searching among unemployed workers – can boost labour market participation. It is estimated that an increase in spending on ALMPs by only 0.5 per cent of GDP will increase employment by between 0.2 per cent and 1.2 per cent over the medium term, depending on the country. This result arises

1. Important contributions were made by Slim Bridji and excellent research assistance was provided by Federico Curci (IILS).

because ALMPs have a double benefit in terms of both stimulating demand and improving matching between jobseekers and any vacancies which may arise as a result of increased demand and output.

- Third, carefully designed unemployment benefits can provide much-needed income support, keep workers attached to the labour market and, if combined with active measures such as training, prevent skills erosion. As such, benefit measures of this nature can speed up the employment recovery and lower unemployment over the near term. In addition, over the medium term, early support in times of crisis pays off through both a reduced risk of labour market exclusion and gains in productivity. At the same time, such passive and active labour market policies typically come at a moderate fiscal cost, often below 2 per cent of GDP, even in countries with well-developed income support systems.
- Fourth, the quality of social dialogue matters. In particular, efficient collective bargaining helps to improve the employment reaction to macroeconomic measures – the impact on employment is up to twice as high as in situations without effective social dialogue. This is because in certain circumstances worker and employer organizations can help improve the design of employment measures while also ensuring social support for a pro-employment strategy – which is central to addressing issues related to social unrest raised in Chapter 1.

Introduction

Safeguards to limit the fallout in the financial sector and stimulus packages to prop up aggregate demand have pushed up public debt in most advanced economies, and in some emerging economies. Many countries are facing rapidly worsening sovereign debt problems, with potentially large negative spillover effects on private investment and job creation. Resolving both pre-crisis and crisis-related imbalances, however, takes time, perpetuating labour market challenges and making crisis exit more complicated. Nevertheless, the current policy space within which further action can be taken to spur job creation and place the global economy on a stable recovery path is limited – and deteriorating.

This is particularly problematic given that, as Chapter 1 highlighted, there are risks of an employment double dip. Already, in the majority of countries employment growth is slowing – and in some instances is negative. In a situation of tight fiscal space and large central bank balance sheets, policy actions have to be assessed carefully with respect to both their employment and budgetary impacts. This chapter demonstrates the employment creation potential of cost-effective policy measures as advocated in the ILO's Global Jobs Pact.

The first part of this chapter presents a brief overview of the fiscal challenges faced by governments around the world. The second part examines the employment potential inherent in the adoption of core policies of the ILO's Global Jobs Pact, taking the limited fiscal space available into account.

A. Fiscal challenges

Debt levels have increased dramatically ...

Governments across the globe reacted quickly and decisively to the abrupt downturn in world GDP growth at the end of 2008, stimulating their economies with between 2 per cent and 5 per cent of GDP in government spending and tax cuts. Despite recent efforts to rein in spending and to reduce budget deficits, government debt levels have increased significantly in advanced economies (table 6.1). In contrast, the rise in debt levels in emerging economies has slowed, or even reversed, in the past year.

... leading to widening interest rate spreads and increased debt burden.

Increased debt levels, budget deficits and worries about the future of the euro area itself have also led to a deterioration of borrowing conditions as government bond spreads with respect to German bonds have widened considerably. While borrowing conditions for Greece, Ireland and Portugal have been dire for some time, large economies such as France and Italy, and even countries such as the Netherlands, have seen widening risk spreads in the past months. Conversely, non-euro countries, such as the United Kingdom and the United States, have seen lowering spreads vis-à-vis German bonds. Higher interest rates increase not only the cost of new debt, but also the cost of rolling over existing debt, thus placing large costs on highly indebted countries.

As a consequence, most advanced economies lack fiscal space, be it either for political reasons (as in the United States) or due to increasing borrowing costs. Unfortunately, with a double dip in employment looming ahead for the world economy, countries will require every bit of fiscal space available. Thus, both spending and tax instruments need to be redesigned to maximize their impact on employment while having a minimum impact on the budget deficit.

Table 6.1 Public debt dynamics in G20 countries

	Emerging non-EU	Advanced non-EU	Emerging EU	Advanced EU
2008	43.5 (40.6)	93.3 (75.6)	38.6 (28.9)	65.8 (55.5)
2009	46.2 (41.5)	109.3 (86.9)	43.8 (38.0)	76.2 (64.0)
2010	44.4 (39.0)	114.3 (89.8)	48.9 (42.7)	81.9 (70.0)
2011	42.2 (37.1)	122.0 (94.4)	50.1 (45.0)	85.0 (74.8)

Note: The table presents the GDP-weighted (unweighted) average gross government debt as percentage of GDP.

Country groupings: Emerging non-EU: Argentina, Brazil, India, Indonesia, Mexico, Russian Federation, Saudi Arabia, South Africa and Turkey; Advanced non-EU: Australia, Canada, Japan, Republic of Korea and the United States; Advanced EU: Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and United Kingdom; Emerging EU: Czech Republic, Latvia, Poland, Slovak Republic and Slovenia.

Source: IMF World Economic Outlook, September 2011.

B. Employment policies under tight fiscal conditions

Chapter 5 presented various measures that countries can introduce to broaden their tax base and increase their tax revenue – as opposed to relying excessively on spending cuts. Indeed, this section demonstrates that ill-conceived spending cuts will increase unemployment, decrease the tax base and increase expenditures on programmes related to inactivity. The net effect is a further erosion of the fiscal position.

With this in mind, this section presents policy measures to be taken in the face of a limited fiscal space and slowing job creation. There are two criteria for successful policy measures in this context: (i) they should have a significant impact on employment; and (ii) they should take into account the available fiscal space. Such an approach is possible by strengthening labour market institutions and through the implementation of both active and passive labour market policies. Labour market institutions have been weakened by the crisis, while labour market policy spending has been underutilized by government. The *World of Work Report 2010* (Chapter 3) shows that the composition of fiscal stimulus measures in G20 countries has been biased toward tax measures and infrastructure spending, which account for 28 per cent and 32 per cent of the total package size, respectively. Contrastingly, active and passive labour market spending accounts for 2.5 per cent and 2.1 per cent of the total package size, respectively.

To address the twin challenges of spurring job creation under constrained budgets, the Global Economic Linkages (GEL) model has been extended to include detailed accounts of labour market flows and assessments of various potential policy responses (see Appendix A). The GEL modelling platform is used to discuss four important labour market features: (i) spending cuts; (ii) active labour market policies (ALMPs); (iii) unemployment benefits; and (iv) social dialogue.

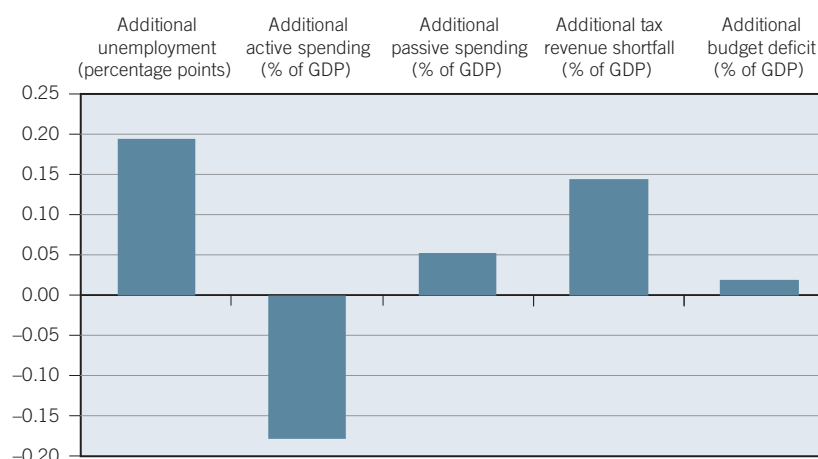
Ill-conceived budget cuts affect employment and complicate the achievement of fiscal goals in the medium term ...

Poorly designed spending cuts can in fact worsen the fiscal balance and have a negative impact on the economic outlook. This occurs through three main channels. First, budget cuts negatively affect aggregate demand. Second, when targeted towards investment and employment, reduced spending may adversely affect the productive capacities of firms. Third, the recessionary effect of spending cuts leads to a reduction in the tax base and an increase in automatic spending. In the case of cuts to spending on ALMPs, the net fiscal effect can be negative, with adverse effects on unemployment also.

Indeed, simulations with the GEL model show that a cut in ALMP spending will actually cause a further increase in the budget deficit as well as a rise in unemployment (figure 6.1). More specifically, the baseline scenario assumes a recession that increases unemployment by 2 per cent, which increases unemployment benefit payments and erodes the tax base. In addition, if the government were to cut active labour market spending in response to the increased deficit, unemployment would increase a further 0.2 per cent, thereby increasing the unemployment cost of the recession by 10 per cent.

Moreover, increased unemployment erodes the tax revenue even further, by 0.15 per cent of GDP, as well as requiring increased spending on unemployment benefits of 0.05 per cent of GDP. Thus, the net effect on the fiscal deficit of a cut

Figure 6.1 Employment and fiscal impact of a budget cut



Note: The GEL model is subjected to a productivity shock leading to a 2 per cent increase in the unemployment rate. The graph shows the effect of cutting active labour market spending by 0.18 per cent of GDP. Passive spending (on unemployment benefits) and revenues from labour tax income fall further by a total of 0.2 per cent of GDP, thus causing a net negative effect on the fiscal budget.

Source: GEL with active labour market policies, Bridji and Charpe (2010a).

in ALMP spending will be negative, while at the same time unemployment will be increased.

This example shows that budgetary cuts have to be carefully considered with respect to their direct and indirect effects. Of course, the indirect effects of a spending cut will be much smaller in countries with a low reliance on labour taxes and with small automatic stabilizers. In such countries, the costs of a spending cut will be borne directly by households.

... whereas increased emphasis on active labour market policies would yield positive output and employment gains ...

Traditional fiscal tools such as tax cuts and infrastructure spending aim to stimulate the economy, taking it for granted that employment creation will follow. In contrast, ALMP spending targets the challenge of unemployment more directly, for instance by providing job-search support and skills upgrading. As such, it is potentially more powerful than traditional fiscal tools.

ALMPs take various forms, such as public employment services or training provision. Empirical evidence on the efficiency of ALMPs is mixed. Studies sometimes point to the perverse effects associated with these measures, such as the locking-in effect which reduces the search intensity of unemployed workers. It seems, however, that ALMP spending yields positive outcomes when the empirical studies control for the various forms of this spending. In particular, labour market training and public employment services are more effective than subsidized jobs (see Boon and van Ours, 2004).

Case studies also underline that the way these measures are implemented in practice is a key component of their success. The effectiveness of training programmes and job-search assistance depends on the resources at the disposal of public employment services. The staff to client ratio fluctuates between 1:75 and 1:150 across countries. These policies also have to target disadvantaged workers, rather than entire groups, to limit deadweight costs. For instance, training programmes for youth workers have often disproportionately benefited high-skilled workers rather than more disadvantaged young workers.

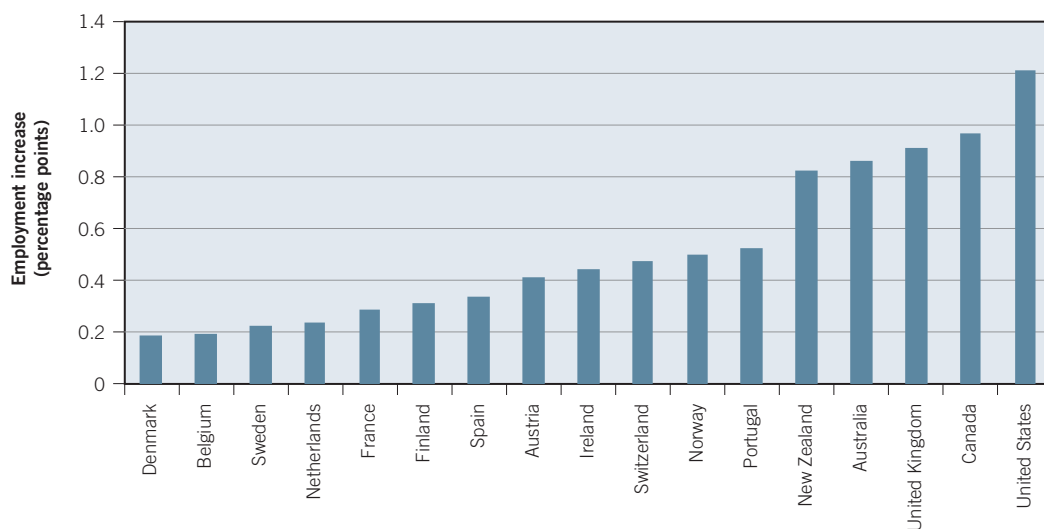
... with minimal impact on fiscal balances in the short term ...

The value added of the analysis presented here is that the benefits of ALMP spending takes into account the general equilibrium effects, while existing studies only consider partial equilibrium effects. The approach therefore considers both the positive supply-side effect of increased efficiency of the labour market and the negative impact on the private sector financing these measures. Indeed, the model reveals that ALMP spending is associated with large increases in production and employment. In particular, figure 6.2 demonstrates that the employment multipliers associated with ALMP spending are positive, and in some cases quite large. The figure presents the percentage increase in employment two years after an increase in ALMP spending equal to 0.5 per cent of GDP, as it takes time for some measures to become fully effective. The multiplier ranges from 0.2 in Denmark to 1.2 in the United States. The multipliers are typically larger when countries currently spend relatively little on ALMPs (decreasing returns to scale), thus lowering the costs of job creation. For instance, as many as 1.7 million jobs could be created in the United States and 262,000 in the United Kingdom.

In terms of policy recommendations, countries with the lowest ALMP spending to GDP ratio are likely to harvest the largest benefit from conducting such policies. This also implies that countries not yet engaged in ALMPs will be able to reap large benefits from introducing such programmes. It is important to keep in mind, however, that the design of programmes is equally important in terms of policy effectiveness.

ALMP spending facilitates the matching of unemployed workers to vacancies within firms on the labour market. The greater efficiency of the labour market then leads to higher levels of employment by firms. Moreover, where there is a low spending to GDP ratio, the output effect is sufficiently strong that it completely overcomes the crowding-out effect on consumption and investment associated with the spending's use of resources. In these circumstances, consumption and investment are crowded in by fiscal intervention. It therefore follows that the multiplier can be

Figure 6.2 Efficiency of active labour market spending



Note: The graph displays the increase in employment expected two years after an active labour market spending programme equivalent to 0.5 per cent of GDP.

Box 6.1 Reinforced public employment services: The case of Germany

In an attempt to improve the ratio of unemployed persons to caseworkers, Germany's first two stimulus packages announced measures to recruit, on a short-term basis, 1,000 and 4,000 additional staff. The efforts to recruit additional staff are an attempt to improve the effectiveness of service delivery to unemployed persons. A new law states that the ratio of staff to clients among longer-term unemployed should be reduced to 1:75 (for persons under 25) and 1:150 (for persons 25 and over). Currently, the ratio is 1:85 for youth and 1:158 for adults.

Meanwhile, the public employment service (PES) in Germany allocated €1.12 billion in 2009 for training purposes – of which €200 million was targeted to re-employ temporary workers (in the same firm) and another €770 million for the extension of a re-education programme for older and low-skilled workers. Moreover, the federal Government, through loan provisions and grants, has ensured that the PES can run a deficit during times of crisis. This means the PES can function as an automatic stabilizer, i.e. there is no disruption in benefits and programmes or increases in contribution rates during downturns.

Source: ILO, 2011a.

larger than 1. Thus, ALMP spending has a high employment effect for small spending increases, making it the ideal instrument in a situation of limited budgetary scope.

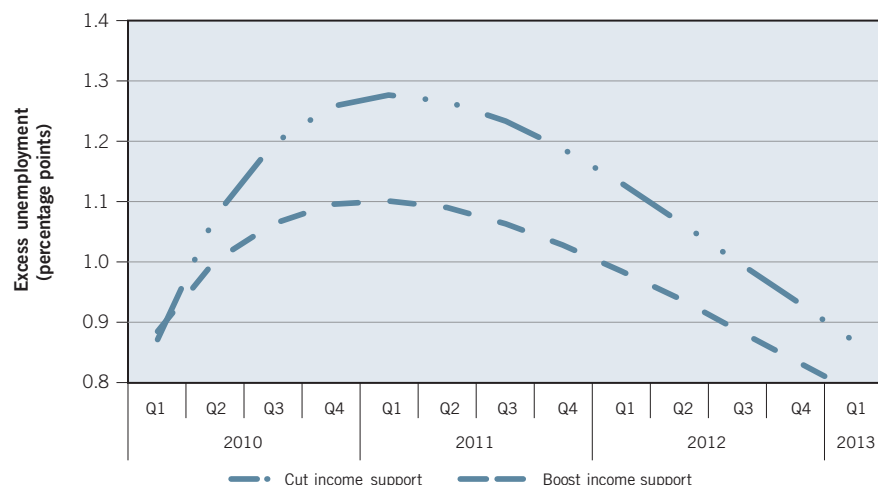
A few countries have engaged in ALMPs since the beginning of the crisis. Germany has reinforced its public employment services (box 6.1). Chile has enacted additional training measures, for a total cost of 0.1 per cent of GDP. Japan has relaxed the eligibility criteria for the employment adjustment subsidy programme and set up a training programme for the elderly – these measures, in addition to others, amount to 0.15 per cent of GDP.

Policies of this nature, however, have been implemented by only a few countries, and those which have been introduced are limited in scale. Moreover, the expected increase in labour market spending in OECD countries shows that most of the increase is linked to automatic stabilizers, and that the share of active over passive labour market spending is forecast to drop from 0.9 in 2007 to 0.5 in 2010. To boost jobs in a sustainable manner, greater emphasis will have to be placed on employment measures of this nature.

... and if complemented by income support measures would stimulate job creation further.

A major obstacle to higher employment creation is the response of households and businesses to economic uncertainty. For example, households that fear the loss of their income through unemployment engage in precautionary savings and limit their consumption spending, which depresses aggregate demand. Similarly, given the rather volatile and uncertain economic environment, banks restrict new credit to firms, which depresses investment, reduces intra-firm activity and, ultimately, limits their hiring capacity. Passive labour market spending, in the form of higher income support measures for unemployed workers, can positively affect the expectations of households. The existence of a public insurance against unemployment risk reduces the need for households to save excessively – the subsequent increase

Figure 6.3 Additional unemployment rate under different degrees of income support measures



Note: The graph displays the development of the unemployment rate during the recovery process after an adverse shock that increased unemployment by 0.9 per cent. With larger countercyclical income support measures the recovery proceeds more quickly.

Source: GEL with passive labour market policies, Challes et al. (2011).

in private consumption is a critical factor in generating output and employment growth.² It also allows workers to continue to look for jobs that are commensurate with their skills profile – thus positively affecting productivity and individuals’ earnings profiles over the medium to long term.

With this in mind, figure 6.3 shows how the unemployment rate is sensitive to whether income support measures are pro- or countercyclical. Two alternative policy options are presented in reaction to an increase in the unemployment rate caused by a shock. In the first option, “Cut income support”, income support measures are reduced by 1.6 per cent of real wages following the shock. In the second option, “Boost income support”, income support measures are extended by an equal amount. The difference in fiscal spending between the two scenarios is limited to around 0.2 per cent of GDP.

As figure 6.3 illustrates, a cut in income support measures during a crisis will exacerbate the increase in unemployment. Conversely, extending income support measures during a crisis will limit the increase in unemployment and accelerate the recovery process.

This model variant is based on the hypothesis that labour demand and output decisions are constrained by available credit, not productive capacity. Firms are subject to credit rationing, which sets a ceiling on employment opportunities. However, firms can get around credit rationing by selling assets they have previously accumulated. In the model, liquidity hoarding takes the form of government bonds. The government issues public bonds to finance income support measures. Firms accumulate these bonds and thereby relax their credit constraint. Firms then expand labour demand, which hastens economic recovery. During the crisis, however, very few countries have strengthened income support. Some exceptions include Japan, which has widened the coverage of unemployment benefits, and Canada, which has extended the maximum duration of unemployment insurance by five weeks.

2. In the GEL model it is assumed that a share of households consume all their income, therefore their consumption patterns are strictly a function of the level of income support.

Table 6.2 Output, employment, hours and inflation effects of policy changes under different degrees of social dialogue

Panel A. Fiscal policy				
	Output	Employment	Hours	Inflation
Efficient social dialogue	1.83	0.10	1.92	0.09
Restricted social dialogue	1.56	0.05	1.70	0.08
Relative performance (%)	17	109	13	10
Panel B. Monetary policy				
	Output	Employment	Hours	Inflation
Efficient social dialogue	2.92	0.18	3.06	0.14
Restricted social dialogue	2.76	0.15	2.92	0.13
Relative performance (%)	6	19	5	5

Note: The tables display reactivity of output, employment, hours worked and inflation in response to fiscal (panel A) or monetary (panel B) expansion under extended and restricted social dialogue.

Source: GEL with social dialogue, Bridji and Charpe (2010b).

Moving forward, however, the implementation or extension of any public unemployment benefit or insurance scheme must be done in a way that does not distort the incentives structure of the labour market. This implies that eligibility criteria have to be designed carefully.

The dual employment and fiscal goals are best achieved through effective social dialogue.

The GEL model of the labour market includes an element which assesses the effect of bargaining between workers and employers. Two types of social dialogue institutions are considered: (i) “efficient social dialogue” – bargaining between employers and workers over wages and hours; and (ii), “restricted social dialogue” – bargaining which is limited to wages, while hours are set by firms freely. The model simulations show that joint bargaining over wages and hours worked, i.e. efficient social dialogue, can significantly improve the efficiency of government spending and monetary policy on employment creation and output (see table 6.2, panels A and B). In fact, policy effectiveness is greater under an extended degree of social dialogue than when firms retain the right to manage the average number of hours worked. Output reactivity is 17 per cent (6 per cent) higher under extended social dialogue for fiscal (monetary) policy.

With respect to the labour market, employment reacts much more vigorously under an efficient bargaining process than otherwise as consistently more vacancies are created throughout the duration of the policy intervention. In addition, average hours worked per employed individual increase more strongly, at least in the initial periods after the impact of the shock, raising total hours worked more than in the case of restricted social dialogue. As a consequence, output increases faster. The model predicts that the changes in labour input (total hours worked) implied by spending and monetary shocks are mostly adjusted along the intensive margin, but also that extended social dialogue significantly enhances the use of the extensive margin.

In part, the two-speed recovery of labour markets in the G20 can be related to the different degrees of social dialogue in the different countries. Indeed, during

the crisis, several governments have strengthened incentives for firms to hoard labour by reducing the average number of hours of work, instead of cutting jobs, following the advice given by the Global Jobs Pact (paragraph 11(3)). The intention was to maintain jobs and labour income while retaining the skills within firms, in order to speed up the economic recovery. This strategy has started to pay off, as countries which incentivized labour hoarding indeed seem to be faring better during the recovery than others, dissipating the fears of job misallocation that some observers have warned would result from such a policy. Moving forward, collective bargaining institutions can play a key role in determining the effectiveness of policy interventions and should, therefore, play a central role in building a sustainable, job-rich recovery.

C. Policy considerations

The global economic outlook has deteriorated significantly since 2010, signalling that the policies implemented to date have failed on a number of fronts. First, despite the significant and coordinated efforts of governments, the boost to economic activity was short-lived. Second, the modest gains in output, notably in advanced economies, have not yielded sufficient job creation. Third, against the backdrop of weak private sector demand, governments have now come under pressure by financial markets, limiting their ability to address persistent and emerging challenges, particularly as regards job creation. Fourth, efforts to curb public spending have been poorly designed – cuts to employment-friendly programmes have exacerbated labour market conditions and are likely to worsen fiscal conditions.

As long-term unemployment rises and workers begin to leave the labour market entirely, the window for taking decisive action is closing. Urgent action to place employment creation at the centre of the recovery plan is necessary. Moreover, as this chapter has shown, the right policy interventions can meet employment objectives while also being consistent with the need to rein in government expenditure. Indeed, the budgetary impacts of labour market measures are limited, while large spending cuts lead to a worsening of the budget deficit. Placing the emphasis on active and passive labour market policies – introduced through effective social dialogue – will have positive fiscal, output and employment effects, all of which are badly needed given the current employment crisis. It is not too late to prioritize jobs over financial markets.

Appendix A

Model mechanisms

This appendix gives a short overview of the model mechanisms underlying the three variants of the GEL model presented in section B of this chapter. The GEL model is a dynamic stochastic general equilibrium (DSGE) model extended with search and matching function on the labour market. The model variants used in the chapter present different modifications to this baseline model. These modifications allow studying the effects of various alternative policy measures.

GEL with active labour market policies

Both the simulation of budget cut effects as well as the simulation concerning the effectiveness of ALMP utilize the GEL with active labour market policies. This model variant introduces an additional type of government spending: public spending to improve the process of matching job vacancies and unemployed workers (e.g. through an increase in the staffing ratio of public employment services). The model assumes an elasticity of matching to public spending of 0.1. The elasticity of matching to vacancy (or searching unemployed workers) is 0.5. Labour market spending improves total employment and output. At the same time, the negative wealth effect on private consumption that results from increased government debt tends to counterbalance any positive public spending effect. In this respect, active labour market spending programmes allow the balance to tip in the positive direction. This occurs through the additional supply-side effect of more efficient functioning of the labour market and hence a reduced aggregate cost of job-search activities. However, even in this case, higher public spending still has a negative displacement effect on private expenditure, suggesting the existence of an optimal spending level (see Bridji and Charpe, 2010a).

GEL with social dialogue

The GEL model with social dialogue additionally considers price rigidities to allow for inflation dynamics and an inflation–unemployment trade-off along a (New Keynesian) Phillips curve. In addition, government activity is introduced through (fully tax-financed) general spending, following an autonomous, pre-set path. Monetary policy is also being considered through the lenses of a simple interest rate rule that influences the user costs of capital for firms.³ Together, both government spending and monetary interventions will influence the dynamics of aggregate demand, but it cannot influence the extent to which firms would rather hire more workers instead of increasing the number of hours worked per employee.

Key to the dynamics of the model is the form that the bargaining process over wage and hours worked per employed worker takes. The GEL with social dialogue considers two widely used types of bargaining patterns: 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 entirely to the firm. In the second form, workers and firms negotiate over

3. The interest rate rule follows the so-called Taylor rule, a weighted average between (past) inflation, inflation expectations and the output gap.

both average hours worked and average pay. 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. Only in the second case a maximum number of new job vacancies can be guaranteed: when firms keep the final word over the number of hours worked, they tend to impose more hours than socially optimal and hence there are fewer job openings. As a consequence, not only will social welfare depend on the type of social dialogue institutions, it will also affect the extent to which government interventions can help to create new jobs (see Bridji and Charpe, 2010b).

GEL with passive labour market policies

Besides their important role in preventing job seekers from falling into a poverty trap, unemployment benefits in the set-up of this model also allow aggregate demand to be strengthened, thereby fostering a faster recovery of job creation. This requires the introduction of an additional element that has not been sufficiently covered in the preceding model variants: cross-sectional income dispersion, i.e. income and consumption inequality between households. The GEL with passive labour market policies model variant allows for such household heterogeneity by assuming that job seekers have only limited access to credit markets and are not allowed to take out loans in order to insure themselves against this adverse shock. In other words, private unemployment insurance is ruled out. Instead, households can only rely on government interventions, alleviating their economic situation through (public) unemployment benefits that are levied through taxes from employed households. At the same time, firms suffer from credit constraints during downturns, which limit their capacity to hire new workers as the recovery sets in. Only when the recovery is well under way will the credit constraint gradually be relieved and allow for more forceful employment creation (see Challes et al., 2011).

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The following issues are examined:

- The impact of the economic slowdown on jobs and likely prospects for the next few years.
- The risk of growing social unrest and how this is related to labour market developments and perceptions that the burden of the crisis is not shared in a fair manner.
- Policies which, at little or no fiscal cost, can encourage investment in the real economy and a closer connection between wages and productivity, thus reducing the risk of an employment double-dip – and how such policies can be implemented in different countries.
- How tackling financial speculation on food commodities can enhance private-sector incentives for farmers investing in agriculture, thereby alleviating the food crisis and supporting decent work opportunities in developing countries.
- The importance of pro-employment programmes in boosting recovery while meeting medium-term fiscal goals, and the role of a broader tax base in this respect.

This report shows that a sustainable, job-rich recovery is possible – provided that the factors that led to the crisis are tackled.

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