PREPRINT EDITION
EMBARGOED UNTIL MONDAY, 3 JUNE AT 10:00 GMT

International Labour Organization

INTERNATIONAL INSTITUTE FOR LABOUR STUDIES

World of Work Report

2013

Repairing the economic and social fabric

World of Work Report 2013

World of Work Report 2013

Repairing the economic and social fabric

INTERNATIONAL LABOUR ORGANIZATION
INTERNATIONAL INSTITUTE FOR LABOUR STUDIES

Published by the International Institute for Labour Studies

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

World of work report 2013: Repairing the economic and social fabric / International Labour Office, International Institute for Labour Studies. – Geneva: ILO, 2013

ISBN 978-92-9-251017-6 (print)
ISBN 978-92-9-251018-3 (web pdf)

ISSN 2049-9272 (print)
ISSN 2049-9280 (web pdf)

International Labour Office; International Institute for Labour Studies

employment / unemployment / income distribution / minimum wage / employment policy / social implication / economic recession / economic recovery / trend / projection / developed countries / developing countries

13.01.3

ILO Cataloguing in Publication Data

First published 2013 by
International Labour Office
CH-1211 Geneva 22, Switzerland
www.ilo.org

Co-published in South Asia by
Academic Foundation,
4772/23 Bharat Road, (23 Ansari Road), Darya Ganj,
New Delhi – 110002, India
www.academicfoundation.com

This publication was produced by the Document and Publications Production, Printing and Distribution Branch (PRODOC) of the ILO.

Graphic and typographic design, layout and composition, printing, electronic publishing and distribution.

PRODOC endeavours to use paper sourced from forests managed in an environmentally sustainable and socially responsible manner.

Code: ALI-WEI-ATA

The **International Institute for Labour Studies** was established by the International Labour Organization in 1960 as an autonomous centre for advanced studies in the social and labour field.

Who are the authors of World of Work Report 2013?

The report has been prepared by staff of the International Institute for Labour Studies and is published under the responsibility of its Director. Chapter authors are

- Editorial: Raymond Torres
- Elva López Mourelo, Sameer Khatiwada and Marva Corley (Chapter 1)
- Pelin Sekerler Richiardi and Marva Corley, with contributions from Hassan Kashef (Chapter 2)
- Uma Rani, Patrick Belser and Setareh Ranjbar (Chapter 3)
- Steven Tobin, Daniel Samaan and Immo Schott, with contributions from Franz Ebert (executive pay) (Chapter 4)
- Verónica Escudero, Sameer Khatiwada and Miguel Ángel Malo (Chapter 5)

Raymond Torres edited and coordinated the Report. Judy Rafferty was production assistant for the project. The Report has also benefitted from analysis based on the Global Economic Linkages model, prepared by Vincenzo Spiezia and Stefan Kühn.

We are grateful to the ILO Deputy Director-General for policy, Sandra Polaski, for her stimulating comments and guidance.

Excellent feedback on earlier versions of the report was provided by Patrik Andersson, Peter Doeringer, Jayati Ghosh, Dominique Meda, Alison Morehead and Guy Mundlak.

Our thanks to ILO colleagues who provided very helpful comments including Nada Al-Nashif, Marie-France Auer, Peter Auer, Luigi Cal, Charles Dan, Pierre De Lame, Rudi Delarue, Dimitrina Dimitrova, Umit Efendioglu, Najati Ghosheh, Frank Hagemann, Hans Hofmeijer, Susanne Hoffmann, Mary Kawar, Sebastian Kuenzel, Eddy Lee, Malte Luebker, Philippe Marcadent, Andrés Marinakis, Cristina Mihes, Alena Nesporova, Cynthia Samuel-Olonjuwon, Diego Rei, Joaquin Nieto Sainz, Damien Roache, Daniel Smith, Jean-François Trogrlic, Mafalda Troncho, Shurenchimeg Zokhiolt.

Finally thanks to Institute colleagues and excellent research assistants who provided invaluable support to the following chapters: Kristina Deighan (box 1.1, Chapter 1); Laura Ravazzini (main research assistant), Rengin Gunaydin, Valentine Henrard, Arnaud Künzi, Anwar Deen Lawani, Rachel Medin, Wiktoria Urantowa and Franz Ebert (Chapter 3); Charlotte Carel, Kristina Deighan and Munan Du (Chapter 4); Simisola Obatusin (Chapter 5).

Table of Contents

FIGURES

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

TABLES

Chapter 1

Chapter 3

Chapter 4

Chapter 5

BOXES

Chapter 1

Chapter 2

Chapter 3

Chapter 4

Chapter 5

Overview of employment trends and projections

1

Main findings

- Five years after the global financial crisis, the global employment situation remains uneven, with emerging and developing economies recovering much faster than the majority of advanced economies. Employment rates (the proportion of people of working age who have a job) exceed pre-crisis levels in 30 per cent of the countries analysed. In 37 per cent of the countries, employment rates have increased in recent years, but not enough to return to the pre-crisis situation, while in the remaining 33 per cent of countries, employment rates have continued to decline. Based on current trends, employment rates across emerging and developing economies will return to pre-crisis levels in 2015; while employment rates in advanced economies will only return to the pre-crisis situation after 2017.
- At the global level, the number of unemployed people will continue to increase unless policies change course. Global unemployment is expected to approach 208 million in 2015, compared with slightly over 200 million at the time of publication.
- Key labour market weaknesses that preceded the crisis have remained acute or worsened, even in high-growth economies. For example, over the past 5 years, the incidence of long-term unemployment (the share of unemployed persons out of work for 12 months or more) has increased in 60 per cent of the advanced and developing economies for which data exist.
- In addition, many workers have become discouraged and are no longer actively looking for a job. Labour force participation rates decreased between 2007 and 2012 in more than half of the countries analysed. In those countries where labour force participation rates declined by a full percentage point or more, on average around one-quarter of the decline was due to cyclical effects and the remaining three-quarters to structural changes in the population. If the people who made up the cyclical decline in the labour force participation rate were

currently in the labour force and counted as unemployed, the unemployment rate would now be significantly higher.

- These trends have fuelled social tensions in advanced economies and some developing countries, notably in southern Europe, South Asia and the Arab region. The risk of unrest has receded in Latin America, Sub-Saharan Africa and parts of Asia. Chapters 2 to 5 discuss the consequences of policy inaction and examine policy levers that could be used to put a more even recovery in motion.

Introduction

Almost 5 years after the global financial crisis, the global employment situation remains uneven. There are encouraging signs of recovery, which started to materialize in some countries in 2010, but global labour market indicators have still not recovered to their pre-crisis levels. In emerging and developing economies, labour markets have started to recover – in some cases quite rapidly. Yet, even these countries face the challenge of ensuring that enough decent jobs are created to accommodate the strong growth in the working-age population.

In advanced economies, unemployment spells have lengthened and more workers are becoming discouraged and dropping out of the labour market altogether. This not only has adverse consequences on individuals and their families, but also can weaken previously stable societies, as opportunities to advance in a good job and improve one's standard of living become the exception rather than the rule.

Projections for overall economic growth raise additional concerns for the future. Projections by the IMF and UN-DESA have been revised downward.[1] For instance, UN-DESA forecasts GDP growth in 2013 in advanced economies to be 0.7 percentage points lower than was forecast in June 2012, to the now estimated 1.1 per cent. According to UN-DESA, growth is also slowing in emerging and developing countries, albeit to a lesser extent. The near-term economic outlook is especially bleak in euro area countries. In 2012, GDP growth in the euro area declined by 0.6 per cent, and recent projections suggest a contraction of 0.3 per cent in 2013 instead of an expansion of 0.1 per cent as previously projected.[2]

This chapter presents an overview of the key labour market trends that have been shaping the world of work since the global economic crisis, from both global and regional perspectives. Section A presents trends in employment and unemployment as well as projections. Section B analyses structural changes in the labour market; while section C links these changes with a social outlook, as measured by the social unrest index. Section D lays out the structure of the remainder of the report.

1. IMF (2013a); UN-DESA (2013).
2. IMF (2013b).

A. Labour market performance and projections

At the global level, employment has not yet returned to its pre-crisis level, but performance varies widely across countries and regions.

Over 30 million jobs are still needed to return employment to the level that prevailed before the crisis. The global employment rate,[3] at 55.7 per cent in the fourth quarter of 2012,[4] is 0.9 percentage points lower than before the crisis began in the fourth quarter of 2007, leading to a net global deficit of around 14 million jobs relative to the pre-crisis employment rate. Furthermore, an additional 16.7 million jobs will be needed for the young people who will reach working age in 2013, leading to a net global deficit of 30.7 million jobs this year.

The employment situation in emerging and developing economies[5] is more positive than the global picture. Employment rates in 2012 surpassed pre-crisis rates in 13 out of 28 countries with available information. Of the 28, only four developing economies (Jamaica, Jordan, Morocco and Sri Lanka) showed a continuous decline in employment rates after the start of the crisis. In the 11 remaining countries, the employment rates have showed some recovery, but the increase was not sufficient to surpass pre-crisis levels.

Employment levels in emerging and developing economies have been above their pre-crisis levels since 2011 (figure 1.1, panel A). In general, these economies were less affected in terms of job destruction during the crisis, but they were impacted by the deceleration in employment growth. Employment grew at an average annual rate of 0.9 per cent between 2008 and 2012, which was 0.6 percentage points below the rate in the period prior to the crisis. This growth was not sufficient to absorb the sharp increase in the working-age population – which expanded at an annual average rate of 1.4 per cent between 2008 and 2012, a trend that is expected to continue throughout 2013. As a result, the projected employment rate[6] of 57.6 per cent in 2013 remains almost a full percentage point below the 2007 level.

The growth in the working-age population in emerging and developing economies is expected to slow to an average annual rate of 1.2 per cent between 2013 and 2018, while employment growth is expected to increase at an average annual rate of 2.1 per cent between 2013 and 2018. Thus, employment rates are expected to return to pre-crisis levels in 2015. Moreover, under current growth estimates, by 2018 employment rates in emerging and developing economies will surpass current levels by 2.3 percentage points.

In advanced economies, particularly in the euro area, the employment situation is more problematic. Among the 37 advanced economies with available information for 2012, only six (Germany, Hungary, Israel, Luxembourg, Malta and Switzerland) had employment rates that exceeded pre-crisis levels. In 35 per cent of the countries, employment rates had increased but had not yet reached pre-crisis levels; while rates

3. Employment rates represent employed persons aged 15 or more as percentage of the same-age population.
4. This global employment rate refers to the average rate for 65 countries with available data on employment in the fourth quarter of 2012. Therefore, these figures are not precisely comparable with projections presented below, which are based on a sample of 94 countries. See footnote 6.
5. See Appendix A for the list of countries analysed and their income groups.
6. 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 crisis. The sample analysed comprises 94 countries, of which 38 are advanced economies, 56 are emerging and developing economies. The same methodology has been used by UN-DESA (2013); see Appendix B for methodological considerations.

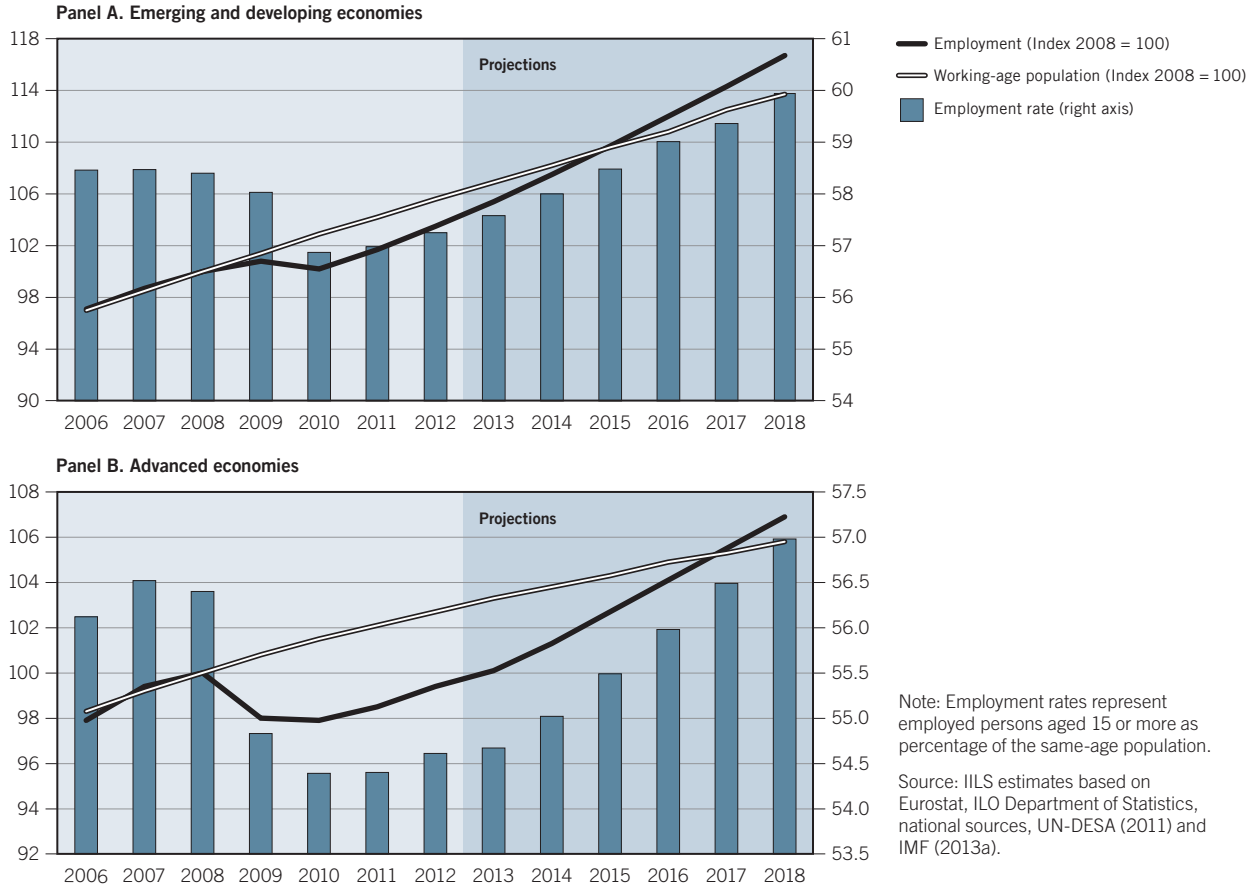
in almost one-half of advanced economies analysed had continued to fall since the beginning of the crisis. The decrease in employment rates was more than 3 percentage points in the last 2 years alone in Cyprus, Greece, Portugal and Spain.

Under current growth estimates, employment levels in advanced economies are expected to recover to pre-crisis levels by 2014 (figure 1.1, panel B). However, once the growth in the working-age population is taken into account, the employment rate will not recover until 2018. The employment rate will reach 56.5 per cent in 2017, remaining 0.1 percentage points below the peak attained prior to the crisis. Employment is expected to grow by an annual average rate of 1.3 per cent in advanced economies over the next 5 years, while the working-age population is expected to expand by 0.5 per cent per year. Thus, advanced economies face the dual challenge of closing the existing jobs deficit while also providing employment for the over 20 million additional young people expected to enter the labour market over the next 5 years.

Among this heterogeneity in labour market performance, three groups of countries can be identified based on their labour market situations (figure 1.2):

- *Countries where employment rates in 2012 exceeded pre-crisis levels*: Among the 65 countries with available quarterly information,[7] employment rates increased between the fourth quarters of 2007 and 2012 in 30 per cent of them[8] (figure 1.2,

Figure 1.1 Projected working-age population, total employment and employment rate, 2006–18



Note: Employment rates represent employed persons aged 15 or more as percentage of the same-age population.

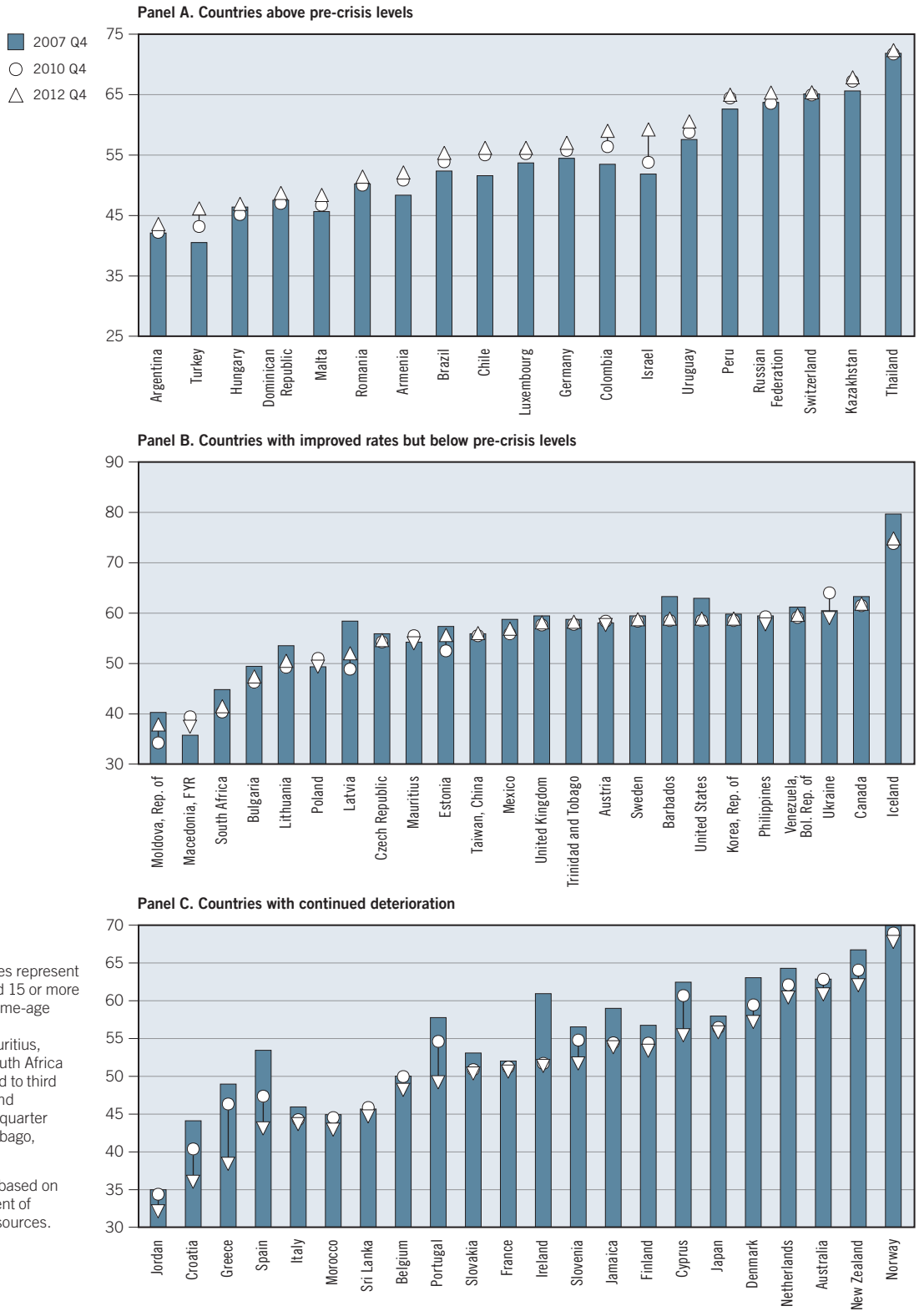
Source: IILS estimates based on Eurostat, ILO Department of Statistics, national sources, UN-DESA (2011) and IMF (2013a).

7. This sample of countries differs from that used in the projections because only countries for which recent quarterly data are available are taken into account, while the projections are based on all countries for which data in annual terms are available.

8. This group comprises Argentina, Armenia, Brazil, Chile, Colombia, Dominican Republic, Germany, Hungary, Israel, Kazakhstan, Luxembourg, Malta, Peru, Romania, Russian Federation, Switzerland, Thailand, Turkey and Uruguay.

panel A). The majority of these countries (13 out of 19) are emerging or developing economies. By the fourth quarter of 2012, employment rates in these countries, on average, had exceeded pre-crisis levels by 2.1 percentage points. Some countries included in this group, such as Chile and Colombia, were able to increase employment rates by more than 5 percentage points between 2007 and 2012 (box 1.1).

Figure 1.2 Employment rates in the fourth quarters of 2007, 2010 and 2012 (percentages)



Notes: Employment rates represent employed persons aged 15 or more as percentage of the same-age population.
Data for Barbados, Mauritius, Russian Federation, South Africa and Ukraine correspond to third quarter, for Sri Lanka and Switzerland, to second quarter and for Trinidad and Tobago, to first quarter.

Source: IILS estimates based on Eurostat, ILO Department of Statistics and national sources.

Box 1.1 Chile and Colombia: Outperforming global employment norms

In both Chile and Colombia, annual employment growth averaged 3.5 per cent between the fourth quarters of 2007 and 2012.[a] In addition, inactivity rates in Chile and Colombia decreased by 3.9 and 5.4 percentage points, respectively, over the same period and both countries managed to decrease unemployment rates by over 1 percentage point. In Chile, youth unemployment has steadily declined post-crisis, falling from its highest level of 25.1 per cent in 2009 to 15.8 per cent in September 2012; while in Colombia, it fell from 23.7 per cent to 21.3 per cent.

Part of the labour market performance can be attributed to strong economic growth: from 2007 to 2011, Chile and Colombia had average growth rates of 3.8 per cent and 4.5 per cent, respectively; in 2012, growth rates averaged 5.5 per cent and 4 per cent in Chile and Colombia, respectively. However, the employment performance of these two countries cannot be explained solely by an expanding economy; it depends in part on employment-related fiscal initiatives.

Crisis response

Strong fiscal policies: Prior to the financial crisis, high copper prices coupled with countercyclical fiscal policy allowed Chile to create an Economic and Social Stabilization Fund. When the economy began to slow down in 2008, the government used the Fund to fuel a USD 4 billion stimulus package, amounting to 2.3 per cent of total GDP in 2009 (Meyers, 2012), which included USD 700 million in infrastructure spending and USD 1 billion for the state-owned Codelco, the largest copper exporter in the world.

During the crisis, Colombia also made changes to reinforce its fiscal policy. Although the country had a structural balanced budget rule, which states that its deficit cannot exceed 1 per cent of GDP, policy-makers integrated provisions for flexibility. They formalized an "escape clause", which allowed the balanced budget rules to be broken in the event of a severe economic slowdown or a recession. Under this rule, Colombia was able to increase its fiscal deficit by 0.6 per cent of GDP and run countercyclical measures.

Social protection policies: Both countries took highly proactive approaches to protect the most vulnerable during the financial crisis. The Colombian government expanded savings among low-income people by partnering with banks to make low-balance saving accounts available. The government combined this action with social protection programmes that provide conditional cash transfers to the needy. In doing so, they generated bank support and enabled over two million bank accounts to be opened by people who otherwise would not have had access to financial institutions (Center for Social Development et al., 2012).

In Chile, major reforms to the pension system in 2008 were designed to increase overall coverage: from the time the changes were implemented in June 2008 to October 2010, pension coverage increased by 38 percentage points. Additional reforms were made to provide supplements for the elderly and disabled and to offer per-child "Mother Allowances" for women (Robles, 2012).

Active labour market policies: When Chile's unemployment rate rose above 10 per cent, the government used a contingency fund to create emergency employment programmes. This programme was meant to be temporary: if unemployment fell below 10 per cent, they went into remission. Young workers were a particular target group, with a subsidy for employers who hired workers aged 18 to 24 years.

Colombia also introduced programmes targeting youth. The programme *Plan 250 mil* enabled young people to pursue training in high-demand occupational fields. Research conducted by the World Bank showed that such programmes increased both formality and earnings (World Bank, 2013). Colombia also implemented employment programmes to aid other vulnerable groups, such as unskilled and unemployed workers. The *Jóvenes* programmes offer a variety of tools to increase participants' employability: employment assistance, on-the-job training and wage/training stipends (World Bank, 2013).

Looking forward

Through swift fiscal intervention, social policies and employment programmes, Chile and Colombia managed to decrease unemployment and inactivity rates in spite of the global crisis. However, while the quantity of employment increased drastically, challenges remain with regard to quality.

In Colombia, job quality deteriorated despite the improving labour market (as seen in section B, figure 1.5). In fact, the incidence of informal employment increased by 1.7 percentage points between 2007 and 2010, from 57.9 per cent to 59.6 per cent.

The mining industry has rampant health and safety concerns that are yet to be fully addressed. In Chile, there was a dramatic mining accident in 2010, in which the lack of regulation and compliance played a strong role. At the time of the accident, there were only 18 inspectors responsible for the regulation of Chile's 8,000 mines; but the number of inspectors increased to 45 in 2011. In 2011, the government also ratified the ILO's Occupational Safety and Health Convention (No. 187), which calls for coherent and systematic treatment of occupational safety and health issues. Though more needs to be done, these are important steps in the right direction.

[a] It should be noted that Chile introduced a methodological change in its Labour Force Survey in 2009 that may lead to some upward bias in employment figures.

- *Countries where the recovery in employment rates was insufficient to surpass pre-crisis levels or where employment rates had decreased since 2010 after increasing between 2007 and 2010*: 37 per cent of the economies[9] (24 out of 65 economies) were able to either: a) increase their employment rates between 2010 and 2012, but this slight recovery was insufficient to restore employment rates to pre-crisis levels, or b) saw their employment rates decline after 2010 having increased between 2007 and 2010 (figure 1.2, panel B). The composition of this group of recovering countries is rather mixed, including advanced economies (13 economies) as well as emerging and developing countries (11 economies).
- *Countries where employment rates continued to fall after the crisis*: In the remaining 33 per cent of countries (22 out of 65), employment rates declined steadily between the fourth quarters of 2007 and 2012[10] (figure 1.2, panel C). The bulk of these are advanced economies (18 economies), with euro area countries accounting for more than half of the group. In the fourth quarter of 2012, employment rates remained, on average, 2.8 percentage points lower than in the same quarter of 2007 for the group as a whole. In some of the European countries included in this group, employment rates decreased by more than 3 percentage points in the last 2 years alone, notably in Cyprus, Greece, Portugal and Spain.

Globally, unemployment has increased.

Unemployment rates remain stubbornly high. In 2012, the global unemployment rate reached 5.9 per cent, 0.5 percentage points above the 5.4 per cent rate before the crisis. Moreover, global unemployment started to rise again in late 2011, increasing by more than 3 million people over the course of 2012 to 195.4 million unemployed (table 1.1). The unemployment rate is projected to increase to 6 per cent this year and, by 2014, around 205 million people will be unemployed. The number of jobseekers will continue to swell and is expected to reach 214 million by 2018.

Over the next 2 years, unemployment is projected to decrease in advanced economies, in Central and South-Eastern Europe (non-EU) and the Commonwealth of Independent States (CIS). With economic activity slowing, labour markets across Asia are expected to remain sluggish and total unemployment is projected to increase by 3.3 per cent in East Asia and South-East Asia and the Pacific and by 5.6 per cent in South Asia between 2013 and 2015. In Latin America and the Caribbean, unemployment is expected to expand slightly to reach 20.2 million by 2015, due to both an expected softening of growth in the region and a continuous increase in labour force participation. With a deceleration of growth projected for most of the African region, the number of unemployed is expected to rise by 5.4 per cent in Sub-Saharan Africa and by 4.3 per cent in North Africa by 2015; while in the Middle East the number of unemployed is expected to rise by 5.4 per cent.

---

9. This group comprises Austria, Barbados, Bulgaria, Canada, Czech Republic, Estonia, Iceland, Republic of Korea, Latvia, Lithuania, FYR Macedonia, Mauritius, Mexico, Philippines, Poland, Republic of Moldova, South Africa, Sweden, [Taiwan, China], Trinidad and Tobago, Ukraine, the United Kingdom, the United States and the Bolivarian Republic of Venezuela.
10. This group comprises Australia, Belgium, Croatia, Cyprus, Denmark, Finland, France, Greece, Ireland, Italy, Jamaica, Japan, Jordan, Morocco, Netherlands, New Zealand, Norway, Portugal, Slovakia, Slovenia, Spain and Sri Lanka.

Table 1.1 Unemployment by region, 2007, 2012, 2013 and 2015 (million)

Region	2007	2012	2013	2015
WORLD	169.7	195.4	201.5	207.8
Advanced economies	29.1	44.0	45.5	45.3
Central and South-Eastern Europe (non-EU) and CIS	14.3	15.0	15.0	14.9
East Asia	31.6	38.4	39.5	40.8
South-East Asia and the Pacific	16.4	14.0	14.3	14.8
South Asia	25.1	24.8	25.7	27.1
Latin America and the Caribbean	18.3	17.9	18.9	20.2
Middle East	6.4	8.0	8.3	8.8
North Africa	6.2	7.4	7.6	8.0
Sub-Saharan Africa	22.2	25.9	26.6	28.0

Source: ILO, Trends Econometric Models, April 2013.

B. The structural picture: Long-term joblessness, concerns about job quality and social impact

Given these developments, there is a risk that existing labour market imbalances become entrenched and therefore will be more difficult to eradicate. This section examines several structural dimensions of the current situation, notably long-term joblessness, job quality and the social climate.

In some countries, long-term joblessness is on the rise…

While the best performing labour markets saw unemployment rates decrease – by 1.6 percentage points, on average – between 2007 and 2012, the unemployment rate in the middle-performance group and weakest performers increased by 2.4 and 3.9 percentages points, respectively (table 1.2). Unemployment rates in these two groups would have been worse were it not for some outflows of workers from the labour market – inactivity rates increased, on average, by 0.3 and 0.1 percentage points in middle and weakest groups between 2010 and 2012. By the fourth quarter of 2012, inactivity rates had increased in one-half of all countries since the onset of the crisis. Moreover, in more than 40 per cent of the countries where unemployment rates declined, inactivity rates actually increased. The most striking examples in this group include Lithuania, Iceland and the United States, which reported sharp declines in unemployment rates between the fourth quarters of 2010 and 2012 – of 4.1, 2.6 and 1.6 percentage points, respectively – while inactivity rates increased by more than one percentage point in all these three countries.

Moreover, in 75 per cent of the countries with available information, the number of discouraged workers – those who are not participating in the labour force but would rather be working – has risen (figure 1.3).[11] Between 2008 and 2011, the share of discouraged workers in the total inactive population increased by 0.7 percentage points on average. Although the increase in inactivity rates shows that labour force participation fell after the onset of the crisis, this reduction could be the result of changes in long-term population trends or changes due to cyclical weakness in the labour market (box 1.2).

11. Data are available for 28 countries, of which 23 are advanced and five are emerging or developing economies.

Table 1.2 Changes in unemployment, long-term unemployment and inactivity rate by type of employment recovery (percentage points)

	Period	Countries above pre-crisis levels (e.g. Chile, Colombia, Germany, Israel, Turkey)	Countries with improved rates but below pre-crisis levels (e.g. Iceland, Republic of Korea, South Africa, United States, United Kingdom)	Countries with continued deterioration (e.g. Greece, Ireland, Japan, Spain, Portugal)
Unemployment rate	2007–2012	–1.6	2.4	3.9
	2010–2012	–1.1	–1.1	1.3
Incidence of long-term unemployment	2007–2012	–8.2	13.7	8.2
	2010–2012	–2.6	–0.9	3.0
Inactivity rate	2007–2012	–1.5	1.5	0.6
	2010–2012	–0.8	0.3	0.1

Notes: Incidence of long-term unemployment refers to the number of unemployed persons out of work for 12 months or more as a share of the total number of unemployed.

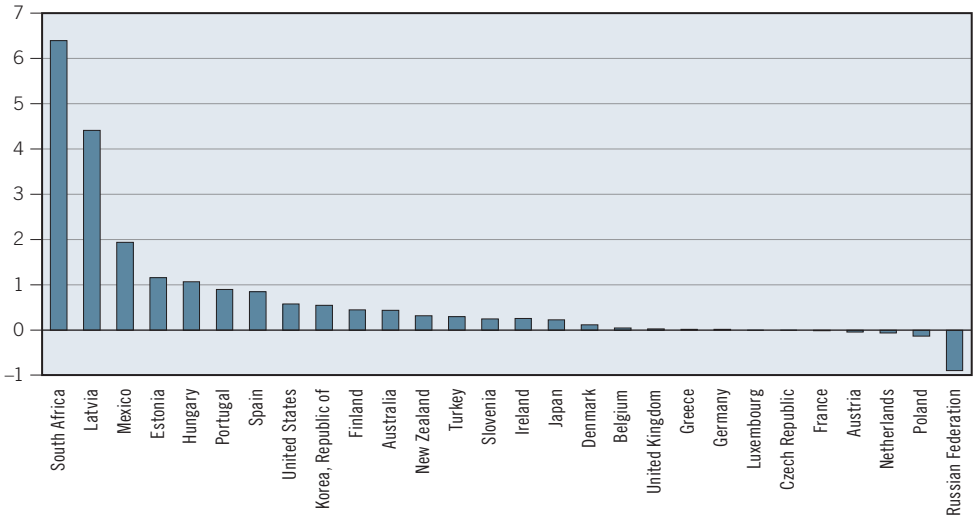
Countries are grouped as in figure 1.2. Country group averages correspond to weighted averages based on 2012 purchasing power parity (PPP) GDP weights.

In general, data correspond to fourth quarters. However, data for Barbados, Mauritius, Russian Federation, South Africa and Ukraine correspond to third quarter, for Sri Lanka and Switzerland, to second quarter and for Trinidad and Tobago, to first quarter.

Source: IILS estimates based on Eurostat, ILO Department of Statistics and national sources.

For example, part of the increase in inactivity can be linked to the rise in the share of long-term unemployment in total unemployment. In 60 per cent of the countries analysed, the share of unemployed persons out of work for 12 months or more increased after the fourth quarter of 2007.[12] The increase was particularly acute in the middle and weakest performing labour markets – 13.7 and 8.2 percentage points, respectively, between 2007 and 2012 (table 1.2). The long-term unemployment rate increased between 2007 and 2012 by at least 20 percentage points in some of the weakest labour markets, such as Ireland and Spain. Moreover, long-term unemployment also increased significantly in Baltic countries, namely Estonia, Latvia and Lithuania.

Figure 1.3 Change in the number of discouraged workers as a percentage of inactive population between 2008 and 2011 (percentage points)



Source: IILS estimates based on OECD Stat and ILO Department of Statistics.

12. This figure corresponds to 42 countries with available data: 31 advanced and 11 emerging or developing economies.

Box 1.2 Cyclical sensitivity of the labour force participation rate

Labour force participation rates (the share of the working-age population that engages actively in the labour market, either by working or by seeking employment) decreased between 2007 and 2012 in more than half of the countries analysed. This decline in the labour force participation rate could be the result of two effects: (i) changes in the working-age population (i.e. a structural effect); or (ii) change in individuals' decisions in response to the situation in the labour market (i.e. a cyclical effect).

An extensive literature has concentrated on the decrease in the labour force participation rate due to structural factors such as the ageing of the population. Most of the empirical evidence suggests that the age distribution of the population is gradually shifting upwards, toward more older people, and this has a clearly adverse effect on overall participation rates (Börsch-Supan, 2003; Burniaux et al., 2003). This effect can be isolated by estimating what the overall participation rate would have been if the age distribution of the population had remained as it was in 2007. Thus, the difference between the actual labour participation rate and this estimated rate measures the change in the participation rate due to structural factors.[a] Following Van Zandweghe (2012), the labour force participation rate in a given year t is:

$$LFPR_t = S_t^{15-24} \times LFPR_t^{15-24} + S_t^{25-54} \times LFPR_t^{25-54} + S_t^{55+} \times LFPR_t^{55+}$$

where $LFPR_t^{15-24}$, $LFPR_t^{25-54}$ and $LFPR_t^{55+}$ represent labour force participation rates for people aged 15 to 24, 25 to 54 and 55 or older, respectively. The weights S_t^{15-24}, S_t^{25-54} and S_t^{55+} are the population shares of the three age groups. If the age distribution of the population had remained at its 2007 levels, the participation rate would have been:

$$LFPR_{t,07} = S_{t,07}^{15-24} \times LFPR_{t,07}^{15-24} + S_{t,07}^{25-54} \times LFPR_{t,07}^{25-54} + S_{t,07}^{55+} \times LFPR_{t,07}^{55+}$$

where $S_{t,07}^{15-24}$, $S_{t,07}^{15-24}$ and $S_{t,07}^{55+}$ represent the population shares in 2007 for the three groups of age. The difference between $LFPR_t$ and $LFPR_{t,07}$ measures the change in the participation rate due to structural changes.

Applying the above methodology to the selected countries for the period 2007 to 2012 leads to the following conclusions:

- In those countries where labour force participation rates declined most sharply (by a full percentage point or more), on average around one-quarter of the decline was due to the cyclical effect and the remaining three-quarters, to structural changes in the population – i.e. due to an ageing population. Overall, without this cyclical effect, the labour force participation rate would have been 0.3 percentage points higher (figure 1.4, panel A).
- Nevertheless, the effect of the cyclical component is significantly greater in some countries. In Denmark and the United States, the cyclical component accounted for more than 50 per cent and 40 per cent, respectively, of the changes in the labour force participation rate. Moreover, if the people who made up the cyclical decline in the labour force participation rate were in the labour force and counted as unemployed, the unemployment rate would now be significantly higher. In fact, the overall unemployment rate for the selected countries would have been 7.4 per cent in 2012 instead of 6.9 per cent (figure 1.4, panel B).

Disentangling the roles of the cyclical and structural factors in explaining the decline in participation rates matters in terms of policy options. For example, if the labour force participation rate decline is mainly due to structural factors, a jobs recovery would not draw workers into the labour market. This suggests

… and problems of job quality are seen in a number of countries

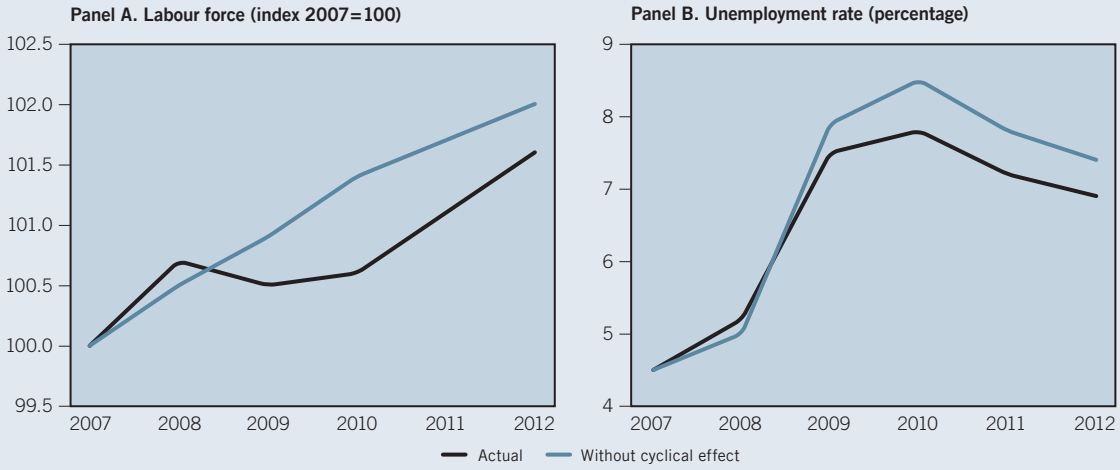
The global crisis has been accompanied by deterioration in the quality of employment in a number of countries. The *World of Work Report 2012* showed that between 2007 and 2010, the incidence of both involuntary temporary and part-time employment increased in 80 per cent and 85 per cent of the advanced economies analysed, respectively.[13] Since 2010, involuntary temporary and part-time employment has increased in many countries where employment growth has resumed.[14] The shares

13. ILO (2012).
14. In this regard, underemployment (i.e. the number of workers willing to work extra hours as a share of the workforce) has become an important feature of the current crisis. See for example, Bell and Blanchflower (2013).

that policies targeting those groups most likely to leave the labour market could have important effects. By implementing further reforms which involve additional work incentives for older workers and raise the propensity of youth to combine work and education, it is possible to mitigate these demographic effects (Burniaux et al., 2003). However, if this decline is mainly due to cyclical factors – i.e. workers leave the labour market because of the lack of job opportunities – it is expected that these workers will re-enter the labour market when the recovery starts. Thus, there is a need for policies that spur creation of enough quality jobs to absorb the currently unemployed and those who will return to the labour market if job prospects improve.

The changes in participation rates in response to the crisis may still be ongoing. According to Duval et al. (2011), the negative effect of severe downturns reaches its maximum 5 years after the cyclical peak, while for very severe downturns it takes between 5 and 8 years. Another key issue is how many of the workers who left the labour force due to the crisis will return when the job recovery starts. Workers who suffer long periods of inactivity may permanently leave the labour force due to the reduced likelihood that they will find a job, even when the economy improves. Some of these workers may apply for disability benefits or retire sooner than planned (Van Zandweghe, 2012).

Figure 1.4 Labour force (index 2007=100) and unemployment rate (percentage) with and without cyclical effect, 2007–12



Notes: The analysis was carried out for those countries where labour force participation rates decreased by at least 1 percentage point between 2007 and 2012, namely Croatia, Denmark, Finland, Italy, Japan, Republic of Korea, Norway, Portugal, Slovenia and United States.

Source: IILS estimates based on OECD Stat and ILO Department of Statistics.

[a] Structural change in labour force participation rates refers to changes motivated by alterations in the age distribution of the population and, therefore, it does not take into consideration the impact on the labour force of structural changes in the economy, such as technological change and occupational shifts.

of involuntary temporary and part-time employment have increased in one-third and one-half, respectively, of the labour markets that performed best in terms of overall employment rates. For example, in Germany, where the employment rate increased by 1.5 percentage points between 2010 and 2011, this has occurred alongside an increase in the incidence of involuntary temporary employment of nearly a full percentage point.[15] In Hungary, the increase in the employment rate (0.5 percentage points between 2010 and 2011) was accompanied by an increase of 4.2 percentage points in the proportion of involuntary part-time employment.

15. However, it is important to note that the transfer rate from temporary to permanent employment increased from 39 per cent to 56 per cent between 2005 and 2011 (ILO, 2013a).

In emerging and developing countries, the share of informal employment remains high, standing at more than 40 per cent in two-thirds of such countries for which data are available.[16]

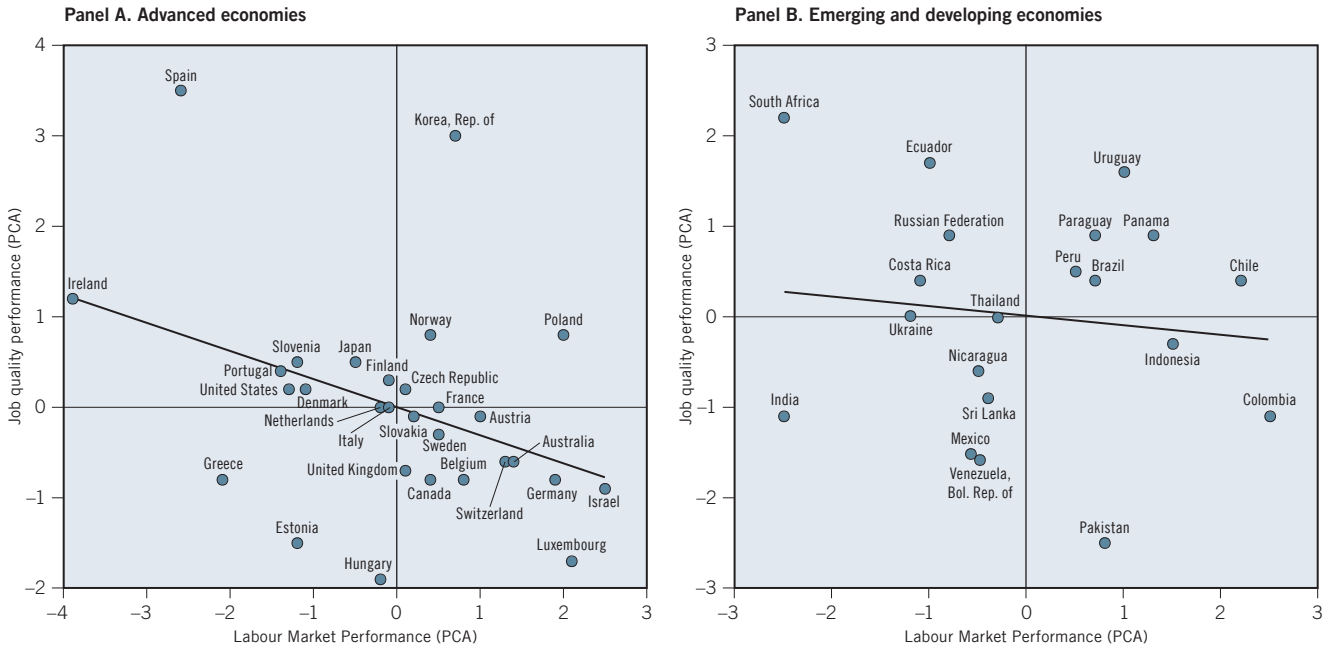
In an effort to derive a single indicator for job quality performance, a principal component analysis (PCA)[17] was undertaken. In advanced economies the change in the percentage of temporary employees,[18] the change in social benefits expenditure as share of total public expenditure and the growth in the average hourly wages between 2007 and 2011 were used. In the case of emerging and developing economies, the growth in average real wages (between 2007 and 2011) and the change in the incidence of informal employment between the pre-crisis and the crisis period were used.

In advanced economies, this job quality indicator is positively correlated to average hourly earnings and social expenditure as a share of public benefits and negatively correlated to the percentage of temporary employees.[19] In the case of emerging and developing economies, the job quality indicator is positively correlated to the growth in real wages and negatively correlated to the change in the incidence of informal employment.[20] Therefore, a country with a higher score for this indicator can be identified with a good performance in terms of job quality. Likewise, labour market performance in both advanced and emerging and developing economies is defined by combining three labour market indicators, namely the average annual growth in employment between 2007 and 2011 and the changes in unemployment and labour force participation rates during the same period. This composite indicator for labour market performance[21] is positively correlated to the change in employment and labour market participation rate and negatively correlated to the change in unemployment rate. Thus, a higher score of this indicator means a good labour market performance.

Figure 1.5 illustrates that the change in labour market performance is negatively related to the change in job quality performance between 2007 and 2011

16. ILO (2012).
17. Principal component analysis (PCA) is a mathematical procedure that transforms a number of correlated variables into a smaller number of uncorrelated variables called principal components, where each component is a linear weighted combination of the original variables.
18. One dimension of job quality considers the contractual status and stability of employment, i.e. standard and non-standard jobs in advanced economies or formal and informal employment in developing economies. Temporary employment is a type of non-standard employment. Nevertheless, a high incidence of temporary employment per se is not problematic if accepted voluntarily. A second dimension of job quality examines the willingness of temporary workers to remain in their job, i.e. involuntary temporary employment, defined as those workers who are engaged in temporary employment because they cannot find permanent jobs. However, only the percentage of temporary employees has been taken into account in the analysis because data on involuntary temporary employment are only available for European countries.
19. The weights used to derive the composite indicator are the factor loadings on the first component of the PCA. The first component explains 55 per cent of the common variance across the indicators. Component loadings for the three variables (average hourly wages, public expenditure in social benefits and percentage of temporary employees) in component 1 are 0.65, 0.48 and -0.60, respectively.
20. The weights used to derive the composite indicator are the factor loadings on the first component of the PCA. The first component explains 75 per cent of the common variance across the indicators. Component loadings for the two variables (average real wages and informal employment as percentage of total non-agricultural employment) in component 1 are 0.71 and -0.70, respectively.
21. The weights used to derive this labour market performance indicator are the factor loadings on the first component of the PCA. The first component explains 70 per cent and 60 per cent of the common variance across the indicators in the case of advanced and emerging and developing economies, respectively. Component loadings for the three variables (employment, unemployment rate and labour participation rate) in component 1 are 0.67, -0.60 and 0.43, respectively, in the case of advanced economies; and 0.68, -0.36 and 0.64, respectively, in the case of emerging and developing economies.

Figure 1.5 Relationship between change in labour market performance and change in estimated "job quality" (percentage points), 2007–11



Source: IILS estimates based on Eurostat, ILO Department of Statistics, OECD Stat, ILO (2012) and EIU.

in both advanced and emerging and developing economies. Indeed, many countries with a good labour market performance during the crisis have negative values for the job quality indicator. For example, some advanced countries with an improved labour market performance during the crisis, such as Germany, Israel and Luxembourg, observed deterioration in job quality. Average hourly wages decreased by 2.5 per cent in Israel; in Germany spending on social benefits decreased by a full percentage point between 2007 and 2011. Especially dramatic is the situation of countries such as Greece, where the worsening of the labour market during the crisis has been accompanied by weakening in the quality of employment. Between 2007 and 2011, Greece experienced an increase in the incidence of temporary employment (by 0.7 percentage points) accompanied by a sharp fall in average hourly wages (by 8.9 per cent). In Ireland and Spain, where the labour market performance deteriorated, the improvement in job quality in the index was mainly due to the loss of temporary jobs, as noted in the *World of Work 2012 Report*.[22] In Spain, 1.3 million construction jobs, mostly temporary, were lost, and the rate of temporary employment fell from 34.4 per cent in 2007 to 25.5 per cent in 2011.

In a number of emerging and developing economies, such as India, Mexico and the Bolivarian Republic of Venezuela, the labour market situation did not improve and job quality worsened between 2007 and 2011; while in others the labour market performance improved while job quality deteriorated, notably in Colombia and Pakistan.

22. ILO (2012).

C. Recent trends in social well-being and unrest

The risk of social unrest has increased, especially in Europe.

Unrest related to the effects of the global crisis has occurred in both the advanced and developing and emerging economies. However, there is no reliable indicator of global social health that captures the current global situation.[23] This section introduces findings from a composite indicator – the social unrest index – which provides a reflection of global social health (see box 1.3).

In order to establish the link between the social unrest index and actual economic indicators, an empirical assessment was carried out for this report.[24] The constructed index was regressed against economic growth (GDP), inflation, income level (GDP per capita), unemployment, debt as a share of GDP, and income inequality (Gini index). Economic growth and income levels are expected to reduce the risk of social unrest, while debt, unemployment, inflation and inequality are expected to increase it.

Results from the empirical analysis indicate that economic growth and the unemployment rate are the two most important determinants of social unrest. For example, a one standard deviation increase in unemployment raises social unrest by 0.39 standard deviations, while a one standard deviation increase in GDP growth reduces social unrest by 0.19 standard deviations.[25] Youth unemployment, like total unemployment, also increases social unrest,[26] but the effect of total unemployment is in fact larger than the effect of youth unemployment.

Social unrest increased in a majority of economies relative to the pre-crisis period. More generally, out of 71 economies for which information is available, the risk of social unrest increased in 46 of them between 2011 and 2012.[27] The risk of social unrest is the highest among the EU-27 countries – it increased from 34 per cent in 2006/07 to 46 per cent in 2011/12 (figure 1.6) – a 12 percentage points increase. Among the 24 EU-27 economies with data for 2012, the risk of social unrest increased in 17 of them (70 per cent).

This increase in the risk of unrest in the European Union is likely to be due to the policy responses to the ongoing sovereign debt crisis and their impacts on people's lives and perceptions of well-being. The euro area economy has been in recession since the third quarter of 2011, the unemployment rate recently reached a record high of 12 per cent and the youth unemployment rate is at 23.9 per cent. Income inequality has also worsened in a number of euro area economies (see Chapter 2). This bleak economic scenario has created a fragile social environment, as fewer people see opportunities for obtaining a good job and improving their standard of living. Between 2010 and 2012, the countries that experienced the

23. For example, the strikes and lockouts data of the ILO, while being extremely useful as a measure of "unrest" in the work place, are self-reported and hence tend to consistently under-represent countries that do not have strong democratic traditions. There are other indicators of unrest, such as the Economist Intelligence Unit's social unrest index, but they tend to weight the institutional and political weaknesses of developing countries very heavily. For a review of other measures of social unrest, see Khatiwada (2013).

24. The panel data method was used for this analysis; see Appendix C for details.

25. All the coefficients are statistically significant at the conventional levels. See Appendix C for results.

26. Due to the multi-collinearity between total unemployment and youth unemployment rates, the two variables were regressed in separate equations.

27. In case of the Latin America and the Caribbean, the data for 2012 are not available, which is why the sample is smaller than in previous years.

Box 1.3 Constructing the social unrest index

The data used in the analysis of social unrest are obtained from Gallup World Poll, Washington, DC. The choice of Gallup as the source of data for the ILO's unrest index is largely a function of data availability: Gallup World Poll data cover a large set of countries, are comparable across countries and are available as time series. Gallup surveys residents in more than 150 countries and territories, representing more than 98 per cent of the world's adult population (aged 15 and over). They use randomly selected and nationally representative samples and the surveys typically cover 1,000 individuals in each country. For some large countries, such as China, India and the Russian Federation, sample sizes could be as large as 2,000. The coverage areas include the entire country, including rural areas – exceptions are areas where the safety of the survey staff is threatened, areas that are scarcely populated and areas so remote that they are unreachable by a vehicle. The sampling frame represents the entire civilian, non-institutionalized, adult population of the entire country.

Five variables are used in the index:

- *Confidence in government*: measures people's satisfaction with the performance of their national government. This captures people's perceptions of whether the government is engaged in improving the lives of its citizens. Societies with relatively more equitable distribution of wealth tend to see their government's performance favourably.
- *Living standard:* measures whether people's lives are getting better at the household level; it also captures the effect of unemployment and/or underemployment on families. The index includes the share of respondents in a country in a given year that said that their living standard was getting worse.
- *Local job market:* measures how people perceive the labour market. In particular, the index includes the share of respondents in a country that said that today is a bad time to find a job in their city or area.
- *Freedom in your life:* measures people's perceptions of their right to choose how they want to live their lives (or what to do with their lives), and also captures perceptions of whether there are democratic channels through which people's collective grievances can be expressed to the government.
- *Access to internet:* measures the availability of modern communication channels to organize large masses of people within a short period of time. This is the only "positive" indicator included in the index, even though a higher percentage also indicates higher risk.[a]

The weights for the variables used in the index (range from 5 per cent for access to internet to 35 per cent for confidence in government. The basic set-up for the index is as follows:

$$\text{SU Index}_{i,t} = \sum_{n=1}^{5} \alpha_n x_{i,t} \; ; \; 0 \leq \text{SU Index}_{i,t} \leq 1$$

where the social unrest index in country *i* at time *t* is equal to the weighted sum of variables *x* for country *i* at time *t*. The index score ranges from 0 to 1, with 0 being at the lowest risk of unrest and 1 being the highest.

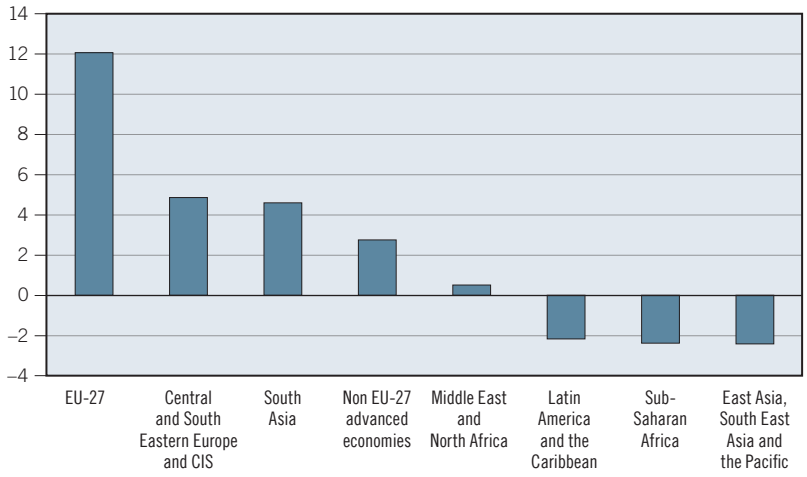
[a] There is a vast and growing literature on the relationship between the internet and social and political movements; for example, see Friedland and Rogerson (2009). However, not including access to internet does not change the overall results.

sharpest increases in the risk of social unrest are Cyprus, Czech Republic, Greece, Italy, Portugal, Slovenia and Spain; while the risk of social unrest declined in Belgium, Germany, Finland, Slovak Republic and Sweden.

The risk of social unrest also increased in non-EU advanced economies, from 33 per cent in 2006/07 to 36 per cent in 2011/12. Among Central and South-Eastern European (non-EU) and CIS countries the risk increased from 32 per cent to 37 per cent, while the risk of unrest also increased among countries in South Asia from 25 per cent to 30 per cent in the same period.

It is important to bear in mind that the availability of strong democratic channels through which the public can express their concerns and frustrations – rule

Figure 1.6 Change in the social unrest index: Pre-crisis (2006/07) versus post-crisis (2011/12)



Note: The scale of the index goes from 0 per cent to 100 per cent (or 0 to 1), with 100 per cent being the highest risk of social unrest. The graph shows the percentage point increase or decrease in the risk of unrest. The bars show simple averages across regions.

Source: IILS calculations based on data from Gallup World Poll (2013).

of law, civil society, unions and other democratic institutions – tends to reduce the risk of social unrest. In parts of the world where there is no strong democratic tradition, the likelihood of social unrest could be higher than captured by this index.

In the Middle East and North Africa the risk of social unrest remains slightly elevated compared with the pre-crisis period. Moreover, the risk of unrest peaked in 2008 and remained high afterwards. The risk of unrest increased by 14 percentage points in the MENA region between 2006 and 2008. In the index, this is principally driven by two factors – limits to political freedom and weak job markets – which jointly account for 40 per cent of the variation in the social unrest index. While growth prospects have improved in this region since the Arab spring, political struggles continue in many countries, which tends to be manifested in people's perception of freedom in their lives.

Sub-Saharan Africa is one of the regions where the risk of social unrest has declined in this period (see figure 1.6). The region is doing well in terms of economic performance – for example, GDP growth remained slightly above 5 per cent both in 2011 and 2012.[28]

East Asia, South East Asia and the Pacific and Latin America and the Caribbean witnessed a decline in the risk of social unrest between the pre-crisis and post-crisis periods. In particular, Latin America and the Caribbean experienced a relatively swift recovery from the global crisis, in large part due to the combination of expansionary fiscal policies and the increase in commodity prices.[29]

28. ILO (2013b).
29. Ibid.

D. Structure of the report

The labour market challenges presented in this chapter reflect not only an economic crisis but also a crisis with social policy dimensions. Some of the issues are cyclical, stemming from the financial crisis; while others are more structural in nature, relating to changes in population and structural shifts in employment.

The following chapters discuss the economic and social impacts of these trends and how policies could contribute to consolidating the job recovery where it is taking place and moving economies out of crisis where unemployment is still high or rising. Chapter 2 focuses on the re-emergence of inequalities in terms of both wealth and labour incomes and links this to the size of the middle-income group, which is fragile in many lower- and middle-income economies and shrinking in many advanced economies for which data are available. Chapter 3 focuses on the role of minimum wages, both as a tool for promoting decent wages among low-skilled workers, but also in raising aggregate demand and thus helping to reinforce and rebalance growth. The chapter reviews the link between minimum wages, household consumption and household demand and then examines the role of effective implementation mechanisms. Central to this analysis is the role of policy design in order to ensure that the level of such wages is not counterproductive and that high levels of compliance can be achieved.

The role of investment in stimulating both economic growth and employment growth is considered in Chapter 4, as investment patterns are closely associated with labour market outcomes. The chapter contrasts the investment slowdown in the advanced economies with its importance in developing and emerging economies. The association between investment patterns since the crisis and firms' cash holdings, as well as executive compensation, are analysed. Policies to promote a stronger connection between the financial sector and the real economy are suggested as a way forward.

Finally, Chapter 5 ends by presenting a policy framework that focuses on simultaneously boosting economic and employment growth to pave the way for shared prosperity.

Appendix A

Country groupings by income level

Country	Income-level group*	Country	Income-level group*
Afghanistan (AFG)	Low income	Kyrgyz Republic (KGZ)	Low income
Albania (ALB)	Lower middle income	Latvia (LVA)	Upper middle income
Algeria (DZA)	Upper middle income	Lithuania (LTU)	Upper middle income
Antigua and Barbuda (ATG)	Upper middle income	Luxembourg (LUX)	High income
Argentina (ARG)	Upper middle income	Macedonia, FYR (MKD)	Upper middle income
Armenia (ARM)	Lower middle income	Malaysia (MYS)	Upper middle income
Australia (AUS)	High income	Malta (MLT)	High income
Austria (AUT)	High income	Mauritius (MUS)	Upper middle income
Azerbaijan (AZE)	Upper middle income	Mexico (MEX)	Upper middle income
Bahamas, The (BHS)	High income	Moldova, Rep. of (MDA)	Lower middle income
Bahrain (BHR)	High income	Mongolia (MNG)	Lower middle income
Barbados (BRB)	High income	Montenegro (MNE)	Upper middle income
Belarus (BLR)	Upper middle income	Morocco (MAR)	Lower middle income
Belgium (BEL)	High income	Netherlands (NLD)	High income
Belize (BLZ)	Lower middle income	New Zealand (NZL)	High income
Bhutan (BTN)	Lower middle income	Nicaragua (NIC)	Lower middle income
Bolivia (BOL)	Lower middle income	Norway (NOR)	High income
Bosnia and Herzegovina (BIH)	Upper middle income	Pakistan (PAK)	Lower middle income
Brazil (BRA)	Upper middle income	Panama (PAN)	Upper middle income
Bulgaria (BGR)	Upper middle income	Paraguay (PRY)	Lower middle income
Cambodia (KHM)	Low income	Peru (PER)	Upper middle income
Canada (CAN)	High income	Philippines (PHL)	Lower middle income
Chile (CHL)	Upper middle income	Poland (POL)	High income
China (CHN)	Upper middle income	Portugal (PRT)	High income
Colombia (COL)	Upper middle income	Romania (ROM)	Upper middle income
Costa Rica (CRI)	Upper middle income	Russian Federation (RUS)	Upper middle income
Croatia (HRV)	High income	Samoa (WSM)	Lower middle income
Cyprus (CYP)	High income	San Marino (SMR)	High income
Czech Republic (CZE)	High income	São Tomé and Príncipe (STP)	Lower middle income
Denmark (DNK)	High income	Saudi Arabia (SAU)	High income

Country	Income-level group*	Country	Income-level group*
Dominican Republic (DOM)	Upper middle income	Serbia (SRB)	Upper middle income
Ecuador (ECU)	Upper middle income	Singapore (SGP)	High income
Egypt, Arab Rep. (EGY)	Lower middle income	Slovakia (SVK)	High income
El Salvador (SLV)	Lower middle income	Slovenia (SVN)	High income
Estonia (EST)	High income	South Africa (ZAF)	Upper middle income
Finland (FIN)	High income	Spain (ESP)	High income
France (FRA)	High income	Sri Lanka (LKA)	Lower middle income
Georgia (GEO)	Lower middle income	Suriname (SUR)	Upper middle income
Germany (DEU)	High income	Sweden (SWE)	High income
Greece (GRC)	High income	Switzerland (CHE)	High income
Guyana (GUY)	Lower middle income	Syrian Arab Republic (SYR)	Lower middle income
Honduras (HND)	Lower middle income	Taiwan, China (TWN)	High income
Hong Kong SAR, China (HKG)	High income	Tajikistan (TJK)	Low income
Hungary (HUN)	High income	Thailand (THA)	Upper middle income
Iceland (ISL)	High income	Trinidad and Tobago (TTO)	High income
India (IND)	Lower middle income	Tunisia (TUN)	Upper middle income
Indonesia (IDN)	Lower middle income	Turkey (TUR)	Upper middle income
Iran, Islamic Rep. of (IRN)	Upper middle income	Uganda (UGA)	Low income
Ireland (IRL)	High income	Ukraine (UKR)	Lower middle income
Israel (ISR)	High income	United Kingdom (GBR)	High income
Italy (ITA)	High income	United States (USA)	High income
Jamaica (JAM)	Upper middle income	Uruguay (URY)	Upper middle income
Japan (JPN)	High income	Uzbekistan (UZB)	Lower middle income
Kazakhstan (KAZ)	Upper middle income	Venezuela, Bol. Rep. of (VEN)	Upper middle income
Korea, Rep. of (KOR)	High income	Viet Nam (VNM)	Lower middle income

* Income-level groups are based on gross national income (GNI) per capita according to the World Bank country classification, available at: http://data.worldbank.org/about/country-classifications/country-and-lending-groups. High-income countries are countries with a GNI per capita of USD 12,476 or more; upper-middle-income countries are countries with a GNI per capita of USD 4,036 to USD 12,475; lower-middle-income countries are countries with a GNI per capita of USD 1,026 to USD 4,035; and low-income countries are countries with a GNI per capita of USD 1,025 or less.

The advanced economies are categorized as high-income countries; emerging economies are categorized as upper-middle-income economies; and developing economies are categorized as lower-middle-income and low-income economies.

Appendix B

The impact of financial crises on employment: An empirical analysis

Section A of this chapter provided employment projections from 2013 to 2018. These projections draw on output–employment elasticities, which have been estimated by way of an econometric analysis of the short-term relationship between output and employment growth during past crises.[30]

The short-term relationship between labour market outcomes and output was documented by Okun (1962) and is referred to as "Okun's law". Empirical evidence confirms the existence of a relatively stable employment–GDP relationship in most economies (Ball et al., 2013). The notion of employment–output elasticity represents a convenient way of summarizing the employment intensity of economic growth and has been found to be useful in identifying growth thresholds at which employment creation becomes significant (Islam and Nazara, 2000).

The analysis draws on a cross-sectional time-series econometric model based on three panels of 100 countries classified by income level that have experienced a crisis in the past and for which there are sufficient historical time series data.[31] Employment data were taken from the ILO's KILM (Key Indicators of the Labour

30. The output–employment elasticity has been estimated only for crises periods in order to approximate these past relationships as much as possible to the short-term relationship between labour market outcomes and output during the current crisis. This relationship is the estimated employment elasticity, which measures the slope of the employment–GDP curve. Importantly, both the slope and intercept of the curve change when there is a structural shock, which is why it is necessary to estimate employment elasticities for time periods with similar macroeconomic characteristics (Islam and Nazara, 2000). Nevertheless, long-term employment elasticities have also been estimated for the period from 1980 to 2011. These longer-term estimated elasticities were around 10 per cent lower than those estimated during crises in the case of advanced and emerging economies, and close to 14 per cent higher in the case of developing economies.

31. Times of crisis were identified on the basis of Laeven and Valencia (2012). Data on employment and GDP were collected, when available, for the period $[t, t + 3]$, where t is the starting year of the crisis. The following countries and crises were taken into account in the analysis:
Advanced economies: Australia 1989–92; Austria 1980–83, 2008–11; Bahamas 1991–93, 2002–05, 2007–11; Bahrain 1993–96; Barbados 1980–83, 1989–92, 2000–03, 2008–11; Belgium 1980–83, 1992–95, 2008–11; Canada 1981–84, 2008–11; Croatia 2008–11; Cyprus 2008–11; Czech Republic 1996–99, 2008–11; Denmark 1987–90, 1992–95, 2007–11; Estonia 1992–95, 2007–11; Finland 1991–94, 2008–11; France 1992–95, 2007–11; Germany 1981–84, 1992–95, 2002–05, 2008–11; Greece 1980–83, 1986–89, 1992–95, 2007–11; Hong Kong SAR 1997–2000, 2008–11; Hungary 1991–94, 2008–11; Iceland 1990–93, 2008–11; Ireland 1982–85, 2007–11; Israel 2000–03; Italy 1992–95, 2002–05, 2007–11; Japan 1997–2000, 2007–11; Republic of Korea 1997–2000, Luxembourg 2008–11; Malta 2000–03, 2008–11; Netherlands 1980–83, 2008–11; New Zealand 1982–85, 1990–93, 2007–11; Norway 1991–94, 2007–11; Poland 1980–83, 1989–92; Portugal 1983–86, 1992–95, 2002–05, 2007–11; San Marino 2007–10; Saudi Arabia 1998–2001, Singapore 1997–2000, 2008–11; Slovakia 1998–2001, 2008–11; Slovenia 1992–95, 2008–11; Spain 1992–95, 2008–11; Sweden 1991–94, 2007–11; Switzerland 1990–93, 2008–11; Taiwan, China 2000–03, 2008–11; Trinidad and Tobago 1982–85, 1986–89, 1991–94, 2008–11; United Kingdom 1990–93, 2007–11; United States 1990–93, 2007–11.
Emerging economies: Algeria 1990–93; Antigua and Barbuda 2000–03, 2008–11; Argentina 1980–83, 1989–92, 1995–98, 2001–04; Azerbaijan 1995–98; Belarus 1995–98; Bosnia and Herzegovina 2008–11; Brazil 1990–93, 1994–97, 2008–11; Bulgaria 1996–99, 2008–11; Chile 1981–84, 2007–11; China 1998–2001; Colombia 1982–85, 1998–2001; Costa Rica 1987–90, 1994–97, 2008–11; Dominican Republic 2003–06; Ecuador 1998–2001; Jamaica 1996–99, 2007–11; Kazakhstan 1993–96; Latvia 1995–98, 2007–11; Lithuania 1995–98, 2008–11; FYR Macedonia 2008–11; Malaysia 1997–2000, 2008–11; Mexico 1994–97, 2008–11; Panama 1988–91; Romania 1990–93, 2008–11; Russian Federation 1998–2001, 2008–11; South Africa 2008–11; Suriname 1991–94; Thailand

Market) database (ILO, 2011) and real GDP data from the World Economic Outlook database of the IMF (IMF, 2013a). GDP figures are expressed in constant local currency units.

Employment–output elasticities are estimated following the methodology developed by Escudero (2009) for three groups of countries: advanced, emerging and developing economies. The following equation was estimated independently for each of these three country groups:

$$\ln e_{it} = \alpha + \beta_{it} \ln y_{it} + \varepsilon_{it}$$

where (e_{it}) corresponds to the level of employment at time t and y_{it} is the real GDP at time t.

The results of the analysis are presented in table 1B.1. The model was estimated using a random-effect GLS estimator following the results in favour of this estimator by the Hausman test. GLS estimation presented an additional advantage since it allowed the estimations to be corrected for groupwise heteroskedasticity – tested through the modified Wald test. As can be seen in table 1B.1, all coefficients remain highly significant after the tests have been carried out. Moreover, regressions have been rerun using different estimation methods and robustness tests with little change in the absolute sizes of the estimated coefficients, giving some confidence in the estimated outcomes.

The estimated employment–output elasticities are consistent with the empirical evidence. On average, the relationship between employment and output is weaker in emerging and developing economies than in advanced economies. Indeed, evidence suggests that the employment elasticity is negatively correlated with structural features of the economy, such as informality and the degree of product market flexibility (IMF, 2012), which weakens the employment–output relationship in emerging and developing countries.

Table 1B.1 Regression results

	ln of employment		
	Advanced economies	**Emerging economies**	**Developing economies**
ln of real GDP	0.5526***	0.3329***	0.2783***
	(0.008)	(0.021)	(0.008)
Constant	4.89***	6.55***	6.67***
	(0.043)	(0.099)	(0.030)
Observations	360	202	150
Number of countries	43	32	25
Number of crisis episodes	92	54	47

Notes: Standard errors are in parentheses. Significance levels: ** at 5 per cent; *** at 1 per cent.
For details of the countries included in each group see Appendix A.

1983–86, 2008–11; Tunisia 1997–2000, 2010–11; Turkey 1982–85, 2000–03, 2008–11; Uruguay 1981–84, 2002–05; Bolivarian Republic of Venezuela 1994–97, 2008–11.
Developing economies: Armenia 1994–96, 2008–11; Belize 2008–11; Bolivia 1986–89, 1994–97; Egypt 1980–83; El Salvador 1989–92, 2008–11; Georgia 2008–11; Guyana 2002–05; Honduras 1981–84, 1993–96, 1998–2001, 2008–11; India 1993–96; Indonesia 1997–2000; Kyrgyz Republic 1995–98, 2001–05, 2006–10; Republic of Moldova 1993–96, 1997–2000, 2008–11; Mongolia 2008; Morocco 1991–93, 1994–97; Nicaragua 1990–93, 2000–03, 2008–11; Paraguay 1998–2001, 2008–11; Philippines 1983–86, 1990–93, 1997–2000; Samoa 1980–83, 1990, 1998–2000; São Tomé and Príncipe 1991–93; Syrian Arab Republic 1983–84, 1997–99, 2002–05; Tajikistan 1993–96; Uganda 1994–97; Ukraine 1993–96, 1998–2001, 2008–11; Uzbekistan 1993–96; Viet Nam 1997–2000.

The employment projections presented in section A of this chapter were constructed by applying the employment elasticity of each group to the GDP growth projections provided by the *IMF World Economic Outlook* (IMF, 2013a) at the country level from 2012 onwards. Employment rates are constructed using the UN Population Division (UN-DESA, 2011) projections for the working-age population. In this sense, employment rates are first calculated by country and then regrouped by income group.

Appendix C

Determinants of social unrest

The analysis in this chapter looks at the determinants of social unrest for the period 2006 to 2012. To this end, panel data were used, with information covering 100 countries. The social unrest indicator, the dependent variable in the model, was computed using five variables drawn from the Gallup World Poll Survey (see table 1C.1). The constructed social unrest index was regressed against economic growth (GDP), inflation, income level (GDP per capita), unemployment, debt as a share of GDP, and income inequality (Gini index). Economic growth and income level are expected to reduce the risk of social unrest, while debt, unemployment, inflation and inequality are expected to increase it.

Because of a problem of collinearity between total unemployment and youth unemployment rates, these two variables are estimated separately using the following specification:

$$SU_{it} = \alpha_i + \lambda_t + \beta_1 UT_{i,t} + \beta_2 GDP_{i,t} + \beta_3 GDPpc_{i,t} + \beta_4 GINI_{i,t} + \beta_5 Debt_{i,t} + \beta_6 Infl_{i,t} + \varepsilon_{it} \quad (1)$$

$$SU_{it} = \alpha_i + \lambda_t + \beta_1 YUT_{i,t} + \beta_2 GDP_{i,t} + \beta_3 GDPpc_{i,t} + \beta_4 GINI_{i,t} + \beta_5 Debt_{i,t} + \beta_6 Infl_{i,t} + \varepsilon_{it} \quad (2)$$

where i and t are the cross-section and time suffixes; SU is the social unrest score; UT is the total unemployment rate and YUT is the youth unemployment rate; GDP is the real GDP growth rate; $GINI$ is the Gini coefficient; $Debt$ is the public debt as a share of GDP; $Infl$ is inflation; α_i and λ_t are the country and time fixed effects; ε_{it} is the error term normally distributed.

All regressions in the result tables include time fixed effects in order to account for global shocks hitting all economies at the same time; in particular, this is to control for the recent financial crisis that started in 2008. Also, in equations 1 and 2, regional dummies were included to account for the fact that social unrest tends to be higher in some regions due to cultural characteristics. In equations 3 to 6 (indicated by column numbers in table 1C.3 and table 1C.4), country characteristics with low or no variation over the period of analysis, such as religion, culture and development, are controlled for by means of country fixed effects. Finally, equations 5 and 6 present results using standardized coefficients (i.e. beta coefficient) so that the relative economic importance of the different determinants of social unrest can be evaluated.

Table 1C.1 Weight 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	0.35
Living standard	Right now, do you feel your standard of living is getting better or getting worse? Answer: WORSE	0.2
Freedom in your life	In this country, are you satisfied or dissatisfied with your freedom to choose what you do with your life? Answer: DISSATISIFIED	0.2
Local job market	Thinking about the job situation in the city or area where you live today, would you say that it is now a good time or a bad time to find a job? Answer: BAD	0.2
Access to internet	Does your home have access to the Internet? Answer: YES	0.05

Table 1C.2 Variables and sources

Variable	Definition	Source
Social unrest	See box 1.3 and table 1C.1.	IILS based on Gallup World Poll data
Growth	Growth rate of GDP at constant prices in USD	World development indicators (WDI)
Inflation	Inflation, consumer prices (annual %)	WDI
GDP per capita	GDP per capita (constant 2000 USD)	WDI
Unemployment	Unemployment rate (%). The unemployment rate indicates the proportion of the labour force that does not have a job and is actively looking and available for work	ILO's Key Indicators of the Labour Market (KILM) database
Youth unemployment	Youth unemployment rate (%) for persons aged 15 to 24.	KILM
Gini coefficient	The Gini coefficient is an inequality indicator based on the Lorenz curve. In particular, a Gini coefficient of 0 represents perfect equality, while a value of 100 implies perfect inequality. Rolling averages of this variable – using a time window of 5 years – were used in this analysis.	IILS based on WDI
Debt	Public debt as a share of GDP	IMF, World Economic Outlook

Due to strong data limitations regarding the Gini coefficient indicator, the model is estimated using this variable separately (see table 1C.4). Since most countries have information on inequality only for 1 or 2 years between 2006 and 2012, a 5-year rolling average of the Gini coefficient indicator was used (this increases the number of observations). The sources of data are Eurostat, IILS (based on Gallup), ILO KILM, World Bank and the International Monetary Fund (table 1C.2).

Results

Results from the empirical analysis indicate that economic growth and unemployment rate are the two most important determinants of social unrest. For example, a one standard deviation increase in unemployment raises social unrest by 0.39 standard deviations, while a one standard deviation increase in GDP growth reduces social unrest by 0.19 standard deviations (table 1C.3). Meanwhile, youth unemployment, like total unemployment, also increases social unrest

Table 1C.3 Determinants of social unrest (2006–12)

	1	2	3	4	5	6
					Beta coefficients	
	Total unemployment	Youth unemployment	Total unemployment	Youth unemployment	Total unemployment	Youth unemployment
Inflation (t-1)	–0.0024* [0.0013]	–0.0024* [0.0014]	0.001 [0.0017]	0.002 [0.0018]	0.041 [0.0635]	0.071 [0.0700]
GDP per capita (t-1)	–0.0000*** [0.0000]	–0.0000*** [0.0000]	0 [0.0000]	0 [0.0000]	–0.047 [0.6917]	–0.4 [0.6896]
GDP growth (t-1)	–0.0095*** [0.0014]	–0.0101*** [0.0015]	–0.0047*** [0.0016]	–0.0058*** [0.0014]	–0.1901*** [0.0662]	–0.2338*** [0.0576]
Government gross debt (% GDP) (t-1)	0.0006*** [0.0002]	0.0006*** [0.0002]	0.0004# [0.0002]	0.0003** [0.0001]	0.1170# [0.0731]	0.0912** [0.0414]
Unemployment (t-1)	0.0027*** [0.0009]		0.0091*** [0.0023]		0.3876*** [0.0969]	
Youth Unemployment (t-1)		0.0019*** [0.0005]		0.0046*** [0.0011]		0.3909*** [0.0942]
Central and South Eastern Europe and CIS	–0.003 [0.0177]	0.002 [0.0175]				
East Asia, South East Asia and the Pacific	–0.2339*** [0.0184]	–0.2111*** [0.0201]				
Latin America and the Caribbean	–0.0756*** [0.0157]	–0.0727*** [0.0169]				
Middle East and North Africa	–0.1476*** [0.0290]	–0.1393*** [0.0296]				
South Asia	–0.0874*** [0.0249]	–0.0749** [0.0295]				
Sub-Saharan Africa	–0.1062*** [0.0221]	–0.0992*** [0.0247]				
Constant	0.4940*** [0.0250]	0.4310*** [0.0221]	0.3119*** [0.0829]	0.3553*** [0.0958]	–0.2230*** [0.0840]	–0.126 [0.1294]
Observations	428	353	428	353	428	353
R-squared	0.482	0.487	0.268	0.357	0.268	0.357
Year FE	YES	YES	YES	YES	YES	YES
Region FE	YES	YES	NO	NO	NO	NO
Country FE	NO	NO	YES	YES	YES	YES
Number of id_country			100	88	100	88

Robust standard errors in brackets.

*** p<0.01, ** p<0.05, * p<0.1, # p<0.15.

(0.39 standard deviations). High public debt (as a share of GDP) is also associated with higher risk of social unrest, although the effect is not as large as unemployment and GDP growth (table 1C.3).

The empirical exercise controlled for regions in order to account for the fact that some regions tend to have higher social unrest due to geopolitical issues. Indeed, even when inflation, economic growth, GDP per capita, debt and unemployment are all accounted for, social unrest differs across regions. The advanced economies, which were used in the analysis as a reference region, have on average the highest social unrest index. Within advanced economies, it is Europe that is more likely to face social unrest than North America and other non-EU advanced economies. East Asia, South East Asia and the Pacific are the regions where social unrest is least likely (equations 1 and 2 in table 1C.3).

Table 1C.4 Determinants of social unrest (2006–12) – Gini Index

	1	2	3	4	5	6
					Beta coefficients	
	Total unemployment	Youth unemployment	Total unemployment	Youth unemployment	Total unemployment	Youth unemployment
GINI (t-1)	–0.0031*** [0.0009]	–0.0046*** [0.0010]	0.0058* [0.0032]	0.004 [0.0043]		
Median equivalised net income (t-1)					0.0000** [0.0000]	0.0000** [0.0000]
Inflation (t-1)	–0.0031** [0.0012]	–0.0042*** [0.0012]	–0.001 [0.0015]	–0.000 [0.0019]	0.0109*** [0.0034]	0.0098*** [0.0030]
GDP growth (t-1)	–0.0096*** [0.0015]	–0.0095*** [0.0019]	–0.0058*** [0.0017]	–0.0069*** [0.0022]	–0.0059** [0.0024]	–0.0057** [0.0023]
Government gross debt (% GDP) (t-1)	0.000 [0.0001]	0.000 [0.0001]	0.0002** [0.0001]	0.0002*** [0.0001]	0.001 [0.0008]	0.001 [0.0009]
Unemployment (t-1)	0.0028*** [0.0011]		0.0047* [0.0028]		0.0132*** [0.0033]	
Youth Unemployment (t-1)		0.0020*** [0.0006]		0.002 [0.0016]		0.0063*** [0.0014]
Central and South Eastern Europe and CIS	0.002 [0.0270]	0.022 [0.0271]				
East Asia, South East Asia and the Pacific	–0.2063*** [0.0301]	–0.1644*** [0.0323]				
Latin America and the Caribbean	–0.013 [0.0322]	0.018 [0.0346]				
Middle East and North Africa	–0.1330*** [0.0439]	–0.0952** [0.0443]				
South Asia	–0.0527# [0.0327]	–0.027 [0.0352]				
Sub-Saharan Africa	–0.046 [0.0371]	0.020 [0.0423]				
Constant	0.5592*** [0.0426]	0.5753*** [0.0451]	0.091 [0.1793]	0.194 [0.2522]	0.083 [0.2321]	0.159 [0.2356]
Observations	251	184	251	184	149	149
R-squared	0.534	0.561	0.248	0.3	0.645	0.641
Year FE	YES	YES	YES	YES	YES	YES
Region FE	YES	YES	NO	NO	NO	NO
Country FE	NO	NO	YES	YES	YES	YES
Number of id_country			61	51	32	32

Robust standard errors in brackets.

*** p<0.01, ** p<0.05, * p<0.1, # p<0.15

References

Ball, L.; Leigh, D.; Loungani, P. 2013. *Okun's Law: Fit at 50?*, IMF Working Paper WP/13/10 (Washington, DC, International Monetary Fund).

Bell, D; Blanchflower, D. 2013. "Underemployment in the UK revisited", in *National Institute Economic Review*, Vol. 224, No.1, pp. F8–F22.

Börsch-Supan, A. 2003. "Labour market effects of population aging", in *Labour*, Vol. 17, No.1, pp. 5–44.

Burniaux, J.M.; Duval, R.; Jaumotte. F. 2003. *Coping with ageing: A dynamic approach to quantify the impact of alternative policy options on future labour supply in OECD countries*, Economics Department Working Papers No. 371 (Paris, OECD).

Center for Social Development; Institute for Statistical, Social, and Economic Research; Kenya Institute for Public Policy Research and Analysis; New ERA; and Universidad de los Andes. 2012. *Youth-related policies*, Research Brief 12-15 (St. Louis, MO).

Duval, R.; Eris, M.; Furceri, D. 2011. *The effects of downturns on labour force participation: Evidence and causes*, Economics Department Working Paper No. 875 (Paris, OECD).

Escudero, V. 2009. *Effects of the crisis on the financial sector: Trends and policy issue*, Discussion Paper No. 197 (Geneva, International Institute for Labour Studies).

Friedland, J.; Rogerson, K. 2009. *How Political and Social Movements Form on the Internet and How They Change Over Time*, Institute for Homeland Security Solutions, Literature Review. Available at: http://sites.duke.edu/ihss/files/2011/12/IRW-Literature-Reviews-Political-and-Social-Movements.pdf.

Gallup World Poll, 2013. Gallup World View, Gallup Inc, (Omaha, NE, Gallup). Available at: https://worldview.gallup.com/signin/login.aspx?ReturnUrl=/

International Labour Organization (ILO). 2013a. *Report of the Director-General: Jobs, growth and social justice*, 9th European Regional Meeting, Oslo 8–11 April 2013 (Geneva).

—. 2013b. *Global Employment Trends 2013: Recovering from a second jobs dip* (Geneva, International Labour Office).

—. 2012. *World of Work Report 2012: Better jobs for a better economy* (Geneva, International Institute for Labour Studies).

—. 2011. *Key Indicators of the Labour Market (KILM)*, 7th edition (Geneva, International Labour Office).

International Monetary Fund (IMF). 2013a. *World Economic Outlook 2013: Hopes, realities, risks* (Washington, DC).

—. 2013b. *World Economic Outlook Update: Gradual upturn in global growth during 2013* (Washington, DC).

—. 2012. *World Economic Outlook Update: Coping with high debt and sluggish growth* (Washington, DC).

Islam, I.; Nazara, S. 2000. *Estimating employment elasticity for the Indonesian economy*, Technical Note on the Indonesian Labour Market (Jakarta, ILO).

Khatiwada, S. 2013. *Social unrest index: An overview*, IILS Discussion Paper, No. 215, forthcoming, (Geneva, International Institute for Labour Studies).

Laeven, L.; Valencia, F. 2012. *Systematic banking crises database: An update*, IMF Working Paper WP/12/163 (Washington, DC, International Monetary Fund).

Meyers, P. 2012. *Chile: political and economic conditions and U.S. relations* (Washington, DC, Congressional Research Service).

Okun, A.M. 1962. "Potential GNP: Its measurement and significance", in *Proceedings of the Business and Economics Statistics Section of the American Economic Association* (Alexandria, VA, American Statistical Association). Available at: http://cowles.econ.yale.edu/P/cp/p01b/p0190.pdf [22 Apr. 2013].

Robles, C. 2012. *Social protection systems in Latin America and the Caribbean: Chile* (Santiago, United Nations).

United Nations, Department of Economic and Social Affairs, Population Division (UN-DESA). 2013. *World Economic Situation and Prospects 2013* (New York, United Nations).

—. 2011. *World Population Prospects: The 2010 revision* (New York, United Nations).

Van Zandweghe, W. 2012. "Interpreting the recent decline in labor force participation", in *Economic Review*, first quarter, pp. 5–34.

World Bank. 2013. *Youth employment programs: An evaluation of World Bank and IFC support*, (Washington, DC).

2 Income distribution and middle-income groups across the world

Main findings

- Income inequalities have narrowed somewhat in the majority of emerging and developing economies for which data exist. In these countries, poverty has declined and the middle-income group is expanding. However, a closer look shows that this is a fragile improvement. Many families have reached income levels just above national or international poverty lines, with continued vulnerability to lapse back into poverty. In this respect, the policy challenge for emerging and developing countries is to consolidate earlier gains, notably by facilitating the transition to the formal economy, extending the reach of well-designed minimum wages and building adequate and sustainable social protection systems.
- In most advanced economies inequalities have widened over the past two years, thereby resuming the trend that preceded the onset of the global financial crisis. Indeed, while between 2007 and 2010 in the majority of advanced economies income inequalities tended to fall, the opposite trend has been observed since 2010. Evidence also suggests a widening of wage inequalities, following a brief pause in the immediate aftermath of the crisis. In addition, there is evidence of increasing polarization of wages, suggesting that there has been a "hollowing in the middle" of the wage distribution. And, as shown in Chapter 4, top incomes recently resumed their upward trend in most advanced economies for which information is available.
- The result is that the size of the middle-income group has shrunk in the majority of advanced economies over the past two decades. This trend seems to have continued during the crisis for the countries for which data are available.

Introduction

The issue of income inequality has received considerable policy attention, including for its possible role in contributing to the global financial crisis.[1] In addition, concern has been expressed regarding the middle parts of the income distribution. An analysis of middle-income groups is important for obvious economic reasons – these groups contribute substantially to economic growth through higher demand and investment in human capital.[2] But there are also socio-political reasons for focusing attention on middle-income groups, which are widely considered to be essential for the stability of societies.[3] It has also been observed that "a focus on middle-income groups does not exclude a focus on the poor but extends it".[4] Policies that favour the development of middle-income groups have positive effects on low-income groups as well, through the development of institutions (legal, health, education, social insurance) that the middle-income groups support politically and which benefit low-income households and families.

The chapter starts with an overview of recent trends in income distribution and wage inequalities around the world (section A). Section B then focuses on the shrinkage in the size and prospects of middle-income groups in advanced economies in recent decades and since the start of the global crisis. Section C examines the contrasting trends observed in emerging and developing countries and assesses the extent of the changes and their sustainability. Concluding remarks on policy implications are offered in section D.

A. Trends in income and wage inequalities

Inequalities in total income distribution have declined, but still remain high, in the majority of emerging and developing countries for which data exist…

The average Gini coefficient[5] of income inequalities is around 30 in advanced economies (with the exception of the United States) and over 40 in the majority of developing and emerging countries – increasing to over 50 in many Latin American and African economies (see figure 2.1). Over the past few years, income inequalities have continued to decline in the majority of emerging and developing economies, although they remain relatively large.

1. ILO (2008).
2. Castellani and Parent (2011); Ravallion (2009); Gigliarano and Mosler (2009).
3. See, for example, Pew Research Center (2009); Pressman (2007).
4. Birdsall (2010).
5. The Gini coefficient is the most commonly used measure of income inequality. The coefficient ranges between 0 to 1, with 0 being perfect equality and 1 being perfect inequality. In this study, in conformity with the literature, the coefficients will be referred on a scale between 0 and 100. Gini coefficients are calculated based on disposable income, which corresponds to the total income of households from different sources (such as labour and capital) after taxes and other deductions have been taken into account. Unless indicated otherwise, all income figures refer to equivalized household income for advanced countries. For developing countries, data on consumption expenditure are generally used instead of income, for availability reasons. It is also useful to measure inequalities of labour incomes, which are a key component of total disposable income (Hoeller et al., 2012).

…while the opposite trend can be observed in advanced economies.

The 2012 issue of *World of Work Report* highlighted the decline in inequality, as measured by the Gini coefficient, in the majority of advanced economies between 2007 and 2010. This decline was owing to the strong adverse impact on capital income gains, which are mostly held by individuals in higher income brackets.[6] The opposite trend can be observed after 2010 (see figure 2.1) as the recovery of profits – documented in Chapter 4 – has mainly benefitted the highest income groups.[7]

Wage inequality (as measured by the ratio between the highest 10 per cent of earners and lowest 10 per cent of earners) decreased in the majority of advanced economies during the height of the crisis (between 2007 and 2010), similar to the trend for income inequality.[8] The decrease in wage inequality in many of these economies may, however, be more reflective of job losses at the bottom of the earnings distribution, rather than a real reduction in wage inequality. For example, in some countries where the employment rate has continued to decline since the crisis (e.g. Greece, Ireland, Italy, Portugal and Spain), the lowest wage earners represented the bulk of dismissals, so although job losses translated into reductions in wage inequalities, this cannot be counted as an overall improvement.

The ratio of the incomes of the highest and lowest deciles is commonly used to measure inequality, however this measure does not fully reflect changes in other parts of the income distribution. This is because this measure, and others focusing on overall inequalities in a society, are based on the principle that a transfer of income from a richer to a poorer person decreases inequality (Pigou–Dalton principle). However, if the transfer takes place between two individuals who are on the same side of the median – e.g. from a person in the middle of the income distribution to a person at the lower end – the general inequality measure might not change. By contrast, polarization indices detect movement from the middle of the distribution towards the tails.[9] It might also point to sources of social strain within a society, even when measures of inequality are not showing any dramatic changes.[10]

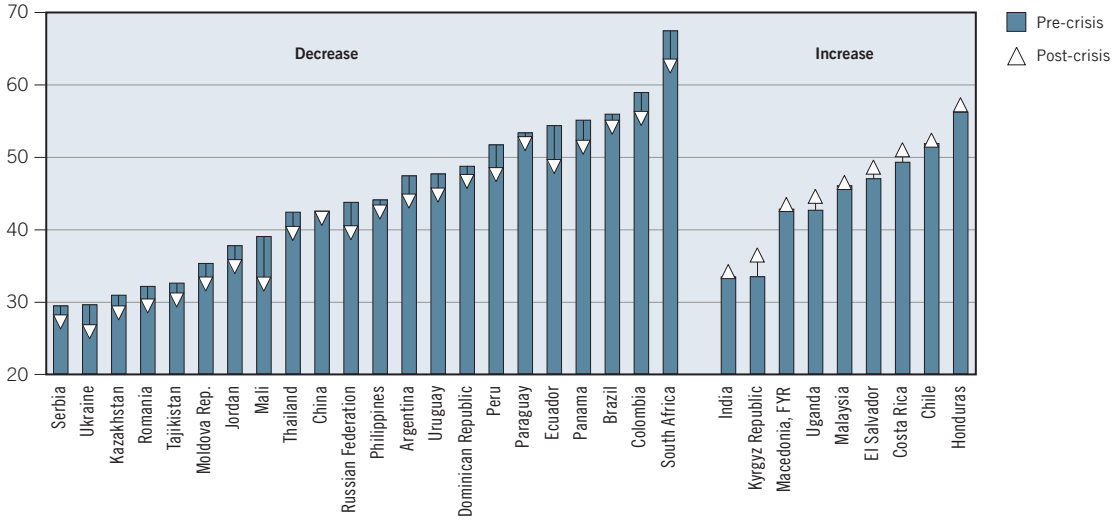
Polarization of wages, in this Chapter, is measured by comparing median earners with the highest and lowest paid groups. The ratio of median earners to the lowest paid 10 per cent is known as the D5/D1 ratio, while the ratio of the highest paid 10 per cent to the median earners is the D9/D5 ratio. Figure 2.2 shows that the D5/D1 ratio either declined or remained relatively constant between the pre- and post-crisis periods in 20 out of the 25 countries for which information is available. In general, during this period the D5/D1 ratio follows the same pattern as the D9/D1 ratio (not shown in the figure), which measures extreme inequality.

---

6. ILO (2012).
7. For example, in the case of the United States, the richest 7 per cent of the population saw their average net worth increase during the first 2 years of the recovery (from 56 per cent of the nation's overall household wealth in 2009 to 63 per cent in 2011), while it declined for the remaining 93 per cent (Pew Research Center, 2013), part of which can be explained by the resurgence in the pay of chief executive officers in the top firms (see Chapter 4).
8. One notable exception is Germany, where, between 2007 and 2011, income inequalities declined and wage inequalities increased. This can be partially explained by declining capital gains, along with increased social expenditure per capita and as a percentage of GDP, which may have shored up non-wage incomes at the lower end of the income distribution.
9. See Esteban and Ray (1994); Wolfson (1994); Zhang and Kanbur (2001); Seshanna and Decornez (2003). See Macculi (2009) for further discussion.
10. See Esteban and Ray (1994).

Figure 2.1 Income inequalities in 2007 and latest available year

Panel A. Developing and emerging economies, 2007 and 2010 (or latest available)*

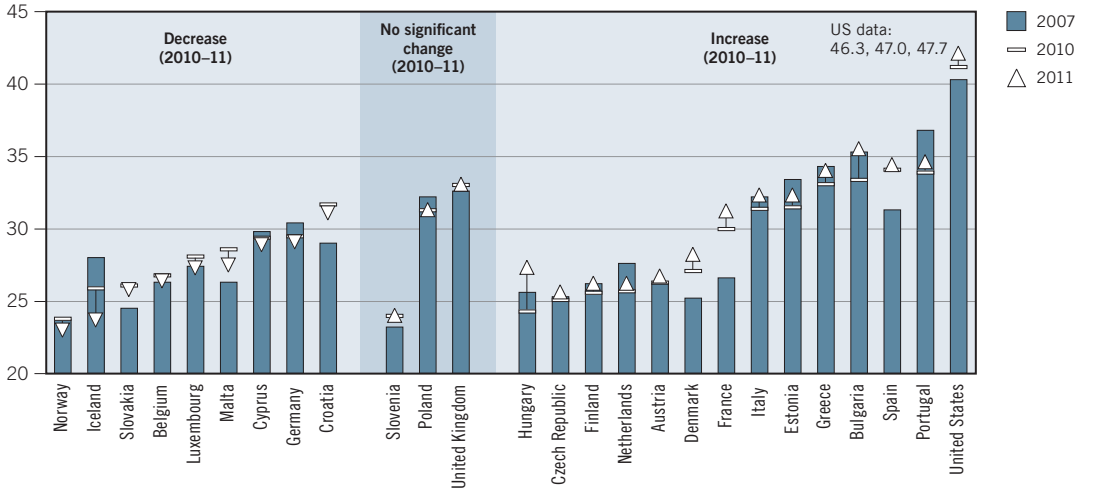


* The pre-crisis year is 2005 instead of 2007 for China and India; 2006 instead of 2007 for Chile, Jordan, Macedonia, Mali, Panama, Philippines, South Africa, Thailand, Uganda; the post-crisis year is 2009 for Brazil, Chile, China, Costa Rica, El Salvador, Honduras, Kazakhstan, Kyrgyz Republic, Macedonia, Malaysia, Philippines, Romania, Russian Federation, Serbia, South Africa, Tajikistan, Thailand, Uganda, Ukraine.

Note: The figure shows the Gini coefficient of income distribution. A low (high) value corresponds to a relatively equal (unequal) distribution of income.

Source: IILS calculations based on World Bank, World Development Indicators.

Panel B. Advanced economies, 2007 and 2011*



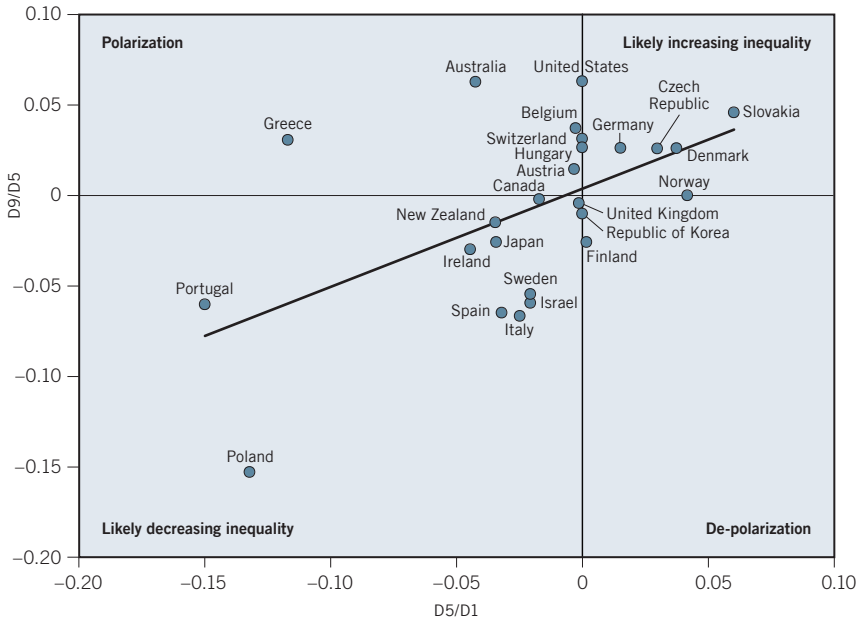
* Countries are classified according to the change between 2010 and 2011.

Note: The figure shows the Gini coefficient of income distribution. A low (high) value corresponds to a relatively equal (unequal) distribution of income.

Source: IILS calculations based on Eurostat and United States Census Bureau.

Figure 2.2 shows that, over the same period, the ratio between the best paid 10 per cent and the median earners increased in 11 out of the 25 countries (shown as the D9/D5 ratio). A combination of a shrinking or stable D5/D1 and an increase in D9/D5 suggests a degradation of wage earners in the middle of the distribution relative to the other two groups. This is seen to have been the case for seven out of the 25 countries: Australia, Austria, Belgium, Greece, Hungary, Switzerland and the United States. Greece provides an illustration of wage polarization in an economy where wage inequality actually decreased – there was a compression of relative earnings of middle-income earners (due to the worsening employment conditions together with cuts in public-sector wages) but an increase in the relative earnings of the best paid.

Figure 2.2 Wage polarization in advanced economies



Note: The figure shows the changes in the ratio of middle-wage earners to low-wage earners (D5/D1) and of top-wage earners to middle-wage earners (D9/D5), between 2007 (2006 if 2007 data not available) and 2010.

Source: IILS calculations based on OECD Stat Extracts, ILO database for Czech Republic.

B. Middle-income groups in advanced economies

In the majority of advanced economies, the size of the middle-income group has been shrinking…

There has been an increasing focus in both the literature and public media on the decline of the middle-income group in advanced economies.[11] For example, in the United States, it is found that both the size and income of this group shrank over the past three decades (for the definition and measurement of the middle-income group, see box 2.1). The share of adults living in middle-income households in the United States (measured as those with an income between 67 per cent and 200 per cent of the national median) fell from 61 per cent to 51 per cent between 1970 and 2010, while their median income declined by 5 per cent[12].

There has been a fall in the share of the population in the middle-income group in the majority of advanced economies over the past two decades (figure 2.3). However, results have not been uniform, and public policy and institutions seem to have played a partial role in explaining the differences between the observed changes in the sizes of the middle-income groups (see box 2.2 for post-crisis trends).

…which has been attributed to job polarization, but also to public policy and institutional factors.

The hollowing of the middle of the distribution in advanced economies has been explained in the literature by several different factors. It is first argued that there has been a significant job polarization in the past decades, both in the United States and in Europe, which might explain the decline in the middle-income group. Job polarization refers to simultaneous growth in employment at the two

11. See, for example, Boushey and Hersh (2012); Pew Research Center (2012); Campbell (2013).
12. Pew Research Center (2012).

Box 2.1 Defining and measuring the middle-income group

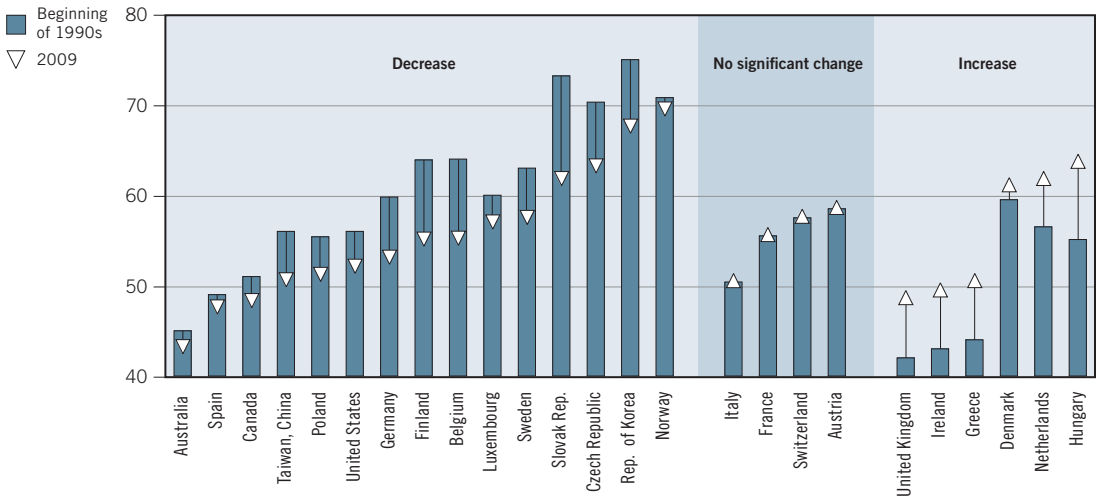
Defining the middle-income group is not straightforward. First, it should be determined whether relative or absolute intervals will be used (this determination is also a problem when measuring poverty). While there is no complete consensus in the literature, relative measures (indicating the share of those who live with an income around a certain percentage of the median) are preferred for developed countries and absolute measures (indicating the percentage of those who live on more than or less than a certain amount of money per day) are preferred for developing economies. By way of illustration, it is considered reasonable to define poverty in developing countries as not having access to a bundle of essential food and non-food goods, while in developed economies a bundle of goods satisfying only basic needs is not usually considered a good indicator of poverty.

When determining the intervals to be used, different values can be found in the literature:

- In the case of *relative measures* the most commonly used intervals are between 75 per cent and 125 per cent of the median household (units of consumption or individual) income (or expenditure) (Pressman, 2007; Thurow, 1987) or between 70 per cent and 150 per cent of the median income (Bigot et al., 2011; Frick and Krell, 2010). The choice of the lower boundary is linked to the poverty line, which is often set at 60 per cent of median income in advanced countries. With a lower bound at 70 per cent or 75 per cent of median income, those who are immediately above the poverty line are excluded from the definition of the middle-income group. The choice of an upper bound seems more arbitrary. The 125 per cent limit introduces symmetry in the definition of the percentage below and above the median. However, to distinguish the rich from the upper-middle-income group, an income higher than 125 per cent of the median might be required. While it is sometimes argued that the precise definition of the middle-income group does not affect the changes observed (Pew Research Center, 2012) (this seems to be the case for 125 per cent and 150 per cent boundaries), it is also argued that as the upper bound increases (for example, up to 300 per cent of median income), different trends might be found (Atkinson and Brandolini, 2011).
- In the context of *absolute measures*, intervals such as those living between USD 2 and USD 20 per day or between USD 2 and USD 13 per day (USD 13 per day being the poverty line in the United States) are commonly used. However, different upper and lower bounds might give significantly different results. Moreover, the lower boundary of the middle-income group in absolute terms (USD 2 per day), which is the international upper boundary for measuring poverty in developing countries (as defined by the World Bank), falls well below national poverty rates in some countries. Such a threshold might lead to overestimation of the size of the middle-income group and not correctly reflect national distribution in some cases (OECD, 2010). Higher thresholds, for allowing comparisons with advanced countries, can also be found in the literature. For example, Kharas and Gertz (2010) set USD 10 per day as a lower bound (poverty line in Portugal and Italy) and USD 100 per day as an upper bound (twice the median income of Luxemburg) in order to obtain a common definition of the middle-income group in all countries.

Throughout this chapter, relative measures are used for advanced economies, while different absolute measures are used for developing and emerging economies according to their income levels.

Figure 2.3 Middle-income group (earning 70–150 per cent of equivalized median income) as a share of total population, selected advanced countries, beginning of 1990s and 2009*



* Data for Norway are 2008 data instead of 2009; data for Australia, Canada, [Taiwan, China] and France (for database incompatibility reasons; see Bigot et al., 2011) are 2005 data instead of 2009; data for the Republic of Korea are 2010 data instead of 2009.

Note: The middle-income group is defined as earning 70–150 per cent of median income except in the United States, where it is defined as 67–200 per cent of median income (Pew Research Center, 2012) and in the Republic of Korea where it is 50–150 per cent of median income.

Sources: IILS based on Bigot et al. (2011), Statistics Norway, Pew Research Center (2012) and Choi et al. (2013).

tails of occupations (highest skilled and lowest skilled) matched by a contraction in the middle.[13] This phenomenon is found to be linked to technological progress and globalization, and there is evidence that some job polarization occurred during the 2008 crisis.[14]

However, other authors contend that job polarization falls short of explaining both wage polarization and the rise in wage inequalities (especially the dramatic rise in top earnings) observed over the past two decades.[15] They argue that policies and institutional settings not only directly modify the income distribution, but can also shape the impact of technological progress and globalization through labour market legislation and fiscal, tax, trade and education policies. Indeed, in many advanced countries a loosening of such policies has been observed, notably in regard to employment protection legislation and the progressivity of the tax system.[16]

13. For studies in this area, see Abel and Deitz (2012); Acemoglu and Autor (2011); Goos and Manning (2007).
14. See Jaimovich and Siu (2012).
15. See Mishel et al. (2013) and Koske et al. (2012).
16. ILO (2011a).

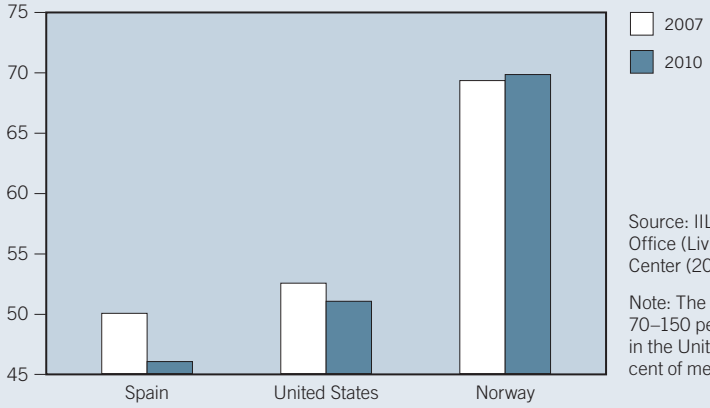
Box 2.2 Post-crisis trends in the middle-income group[a]

In **Norway**, where the middle-income group has shrunk slightly in the past decades, an increase was observed between 2007 and 2009 (figure 2.4), where the middle-income group increased from 69.3 per cent to 70.3 per cent. In spite of the weak employment performance, the gain can be attributed to improvements in social expenditures. During this period, there was a strong improvement in the income of the elderly (who tend to fall in the lower end of the economic spectrum) owing to new legislation; and there was a new cohort of pensioners with more extensive benefits that entered to the system in 2007 (OECD, 2009). Moreover, a substantial increase in state minimum pensions was introduced in 2008. Linked to these changes, social expenditures increased from 20.5 per cent of GDP in 2007 to 23 per cent in 2010. More recent data, however, show that the middle-income group declined slightly between 2009 and 2011 (from 70.3 per cent to 69.8 per cent). In this period, both low- and middle-wage occupations declined (with a more important decline in the latter) while high-wage occupations improved.[b]

In **Spain**, the national data show a considerable decline in the size of the middle-income group after the crisis, from 50 per cent to 46 per cent between the end of 2007 and the end of 2010. Additionally, an analysis of mobility across income deciles showed net declines of those who moved within the middle-income group.[c] After implementing a fiscal stimulus package at the onset of the crisis, Spain undertook an ambitious fiscal consolidation plan in May 2010. Salaries for public sector workers were reduced by 5 per cent, and many other spending cuts – including cuts to education, housing and healthcare spending – that adversely impacted middle groups were introduced.[d] The employment rate also decreased sharply and was 7 percentage points below pre-crisis rates in 2010 (as shown in Chapter 1). This fall was particularly strong for mid-wage occupations (more than 1.2 million), while the number of workers in higher-wage occupations continued to rise (by around 200,000).

In the **United States**, the size of the middle-income group declined between 2007 and 2010 from 52.5 per cent to 51 per cent, continuing a trend observed in the previous three decades. While job polarization has been found to have contributed to this decline to some extent (Acemoglu and Autor, 2011) important institutional changes also occurred during this period. The already low trade union density declined from 12.9 per cent in 2001 to 11.3 per cent in 2011 and the union coverage rate fell from 14.5 per cent in 2002 to 13.1 per cent in 2010. As middle-wage earners are more likely to be union members, the erosion of trade unions might have contributed to the decline of the middle-income group (Card et. al, 2003). At the same time, the top personal tax rate declined from 39.6 per cent to 35 per cent between 2000 and 2010, allowing the post-tax income distribution to skew more towards high-income brackets. Finally, although the United States' employment protection legislation index[e] remained stable during the past decade, it is one of the lowest among advanced countries (0.21).

Figure 2.4 Change in the size of the middle-income group, 2007 and 2010 (as a percentage of total population)



Source: IILS calculations based on Spanish Statistical Office (Living Conditions Surveys), Pew Research Center (2012), and Norway Statistics.

Note: The middle-income group is defined as earning 70–150 per cent of median equivalised income, except in the United States where it is defined as 67–200 per cent of median income. Data for Norway are 2011.

[a] Calculations are based on national data, hence levels are not always comparable with those in figure 2.3.

[b] IILS calculations based on Eurostat data. High wage occupations comprise managers, professionals; mid-wage occupations technicians and associate professionals, clerical support workers, craft and related trades workers; and low-wage occupations service and sales workers, skilled agricultural, forestry and fishery workers, plant and machine operators, and assemblers, elementary occupations.

[c] Based on Eurostat, transitions of income by decile. This suggests that the shrinking of the middle-income group may result from more people moving downwards into lower income groups rather than upwards.

[d] See ILO (2011b) for further policy changes.

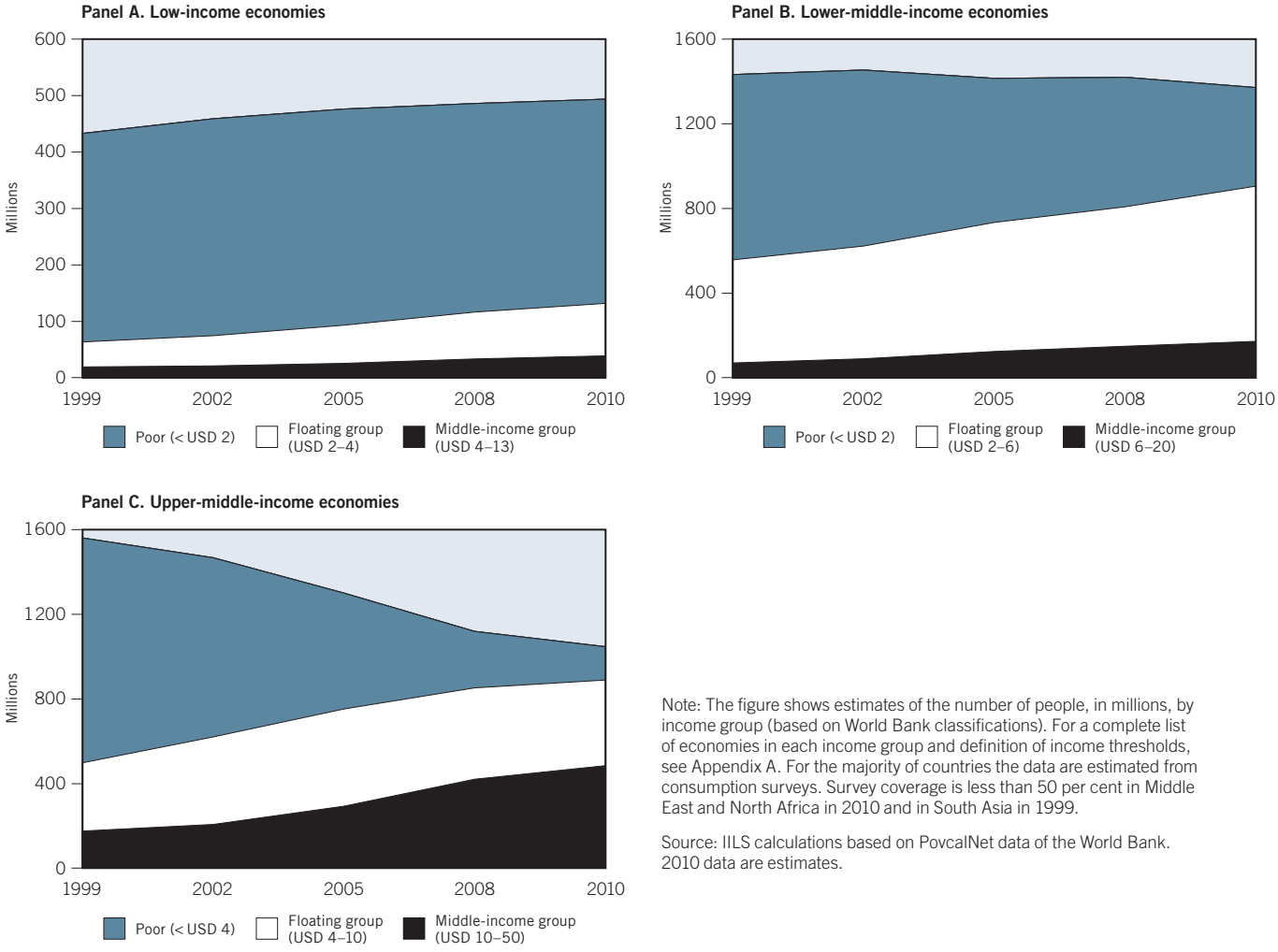
[e] The employment protection legislation index of the OECD is based on legislation for temporary and permanent contracts. This indicator ranges from 0 to 6, with a higher score representing stricter regulation (OECD, 2011).

C. Middle-income groups in emerging and developing economies

In developing and emerging economies the size of the middle-income group has increased…

As noted, in developing and emerging economies absolute incomes are more frequently used to determine the size of the middle-income group; many different intervals are set in the literature (see box 2.1). In this study, an income of USD 4 to USD 13 per day is used to identify the middle-income group in low-income economies, while an income of USD 6 to USD 20 per day is used for lower-middle-income economies.[17] In upper-middle-income economies, an interval of USD 10 to USD 50 is used.[18] These intervals exclude the vulnerable group living with an income just above the poverty line in each group of economies (referred to as the "floating group"). While not currently living below the relevant poverty line, those in this group have a high risk of falling into poverty. The results are shown in figure 2.5.

Figure 2.5 Sizes of different income groups in emerging and developing economies, 1999–2010



Note: The figure shows estimates of the number of people, in millions, by income group (based on World Bank classifications). For a complete list of economies in each income group and definition of income thresholds, see Appendix A. For the majority of countries the data are estimated from consumption surveys. Survey coverage is less than 50 per cent in Middle East and North Africa in 2010 and in South Asia in 1999.

Source: IILS calculations based on PovcalNet data of the World Bank. 2010 data are estimates.

17. Based on World Bank classification of member economies (July 2012); all figures in 2005 purchasing power parity.
18. In upper-middle income-economies poverty is defined as less than USD 4 per day, following the methodology of Ferreira et al. (2013).

… but progress remains fragile, and poor and vulnerable people still represent the majority of the population.

The size of the middle-income group was estimated at 694.1 million in 2010, an increase from 263.2 million in 1999, with more than two-thirds located in upper-middle-income countries.[19] However, the vulnerable "floating group", i.e. those just above the poverty level, represents an even larger proportion of the population in developing economies:

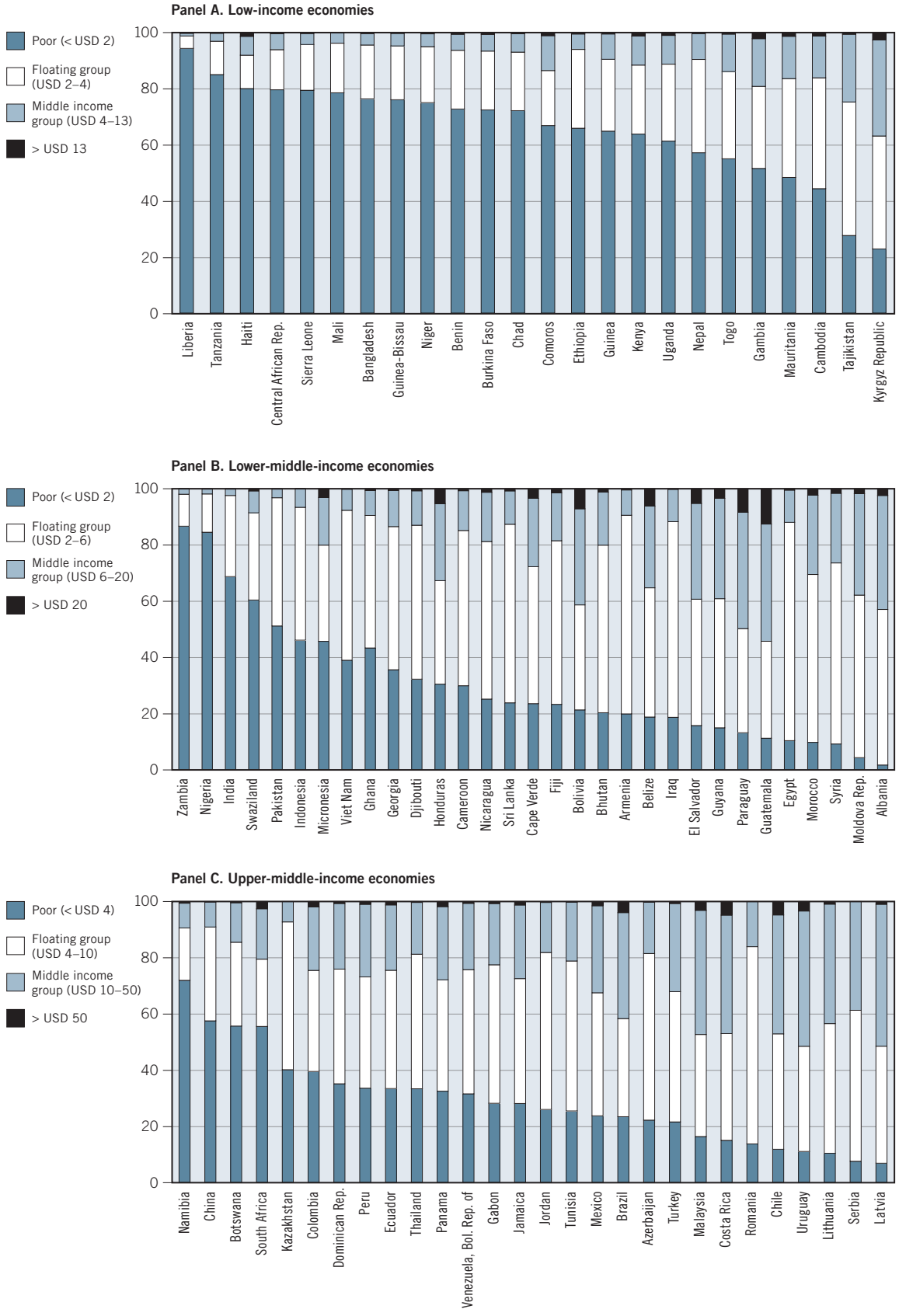
- The floating group was close to three times the size of the middle-income group, having increased from 1,117 million in 1999 to 1,925 million in 2010, with the majority (54 per cent) located in low- and lower-middle-income economies.
- In lower-middle-income economies, the growing number of people in the floating group mirrors the decline in the number of poor people, and represents their positive progress out of poverty, although they remain vulnerable to falling backwards.
- In low-income economies, the number of poor actually increased (while their share in the population decreased in the majority of countries). This is attributable in part to population growth and also indicates the fragility of the economic progress in these economies.
- In upper-middle-income economies, the increase in the middle-income group outpaced that of the floating group. Between 1999 and 2010 the size of the middle-income group more than doubled, from 175 million to 484 million, while the floating group increased by 80 per cent, from 497 million to 888.8 million. Nevertheless, the total number of poor and vulnerable people still represents the majority of the population in most economies (see figure 2.6, panel C). Moreover, as the *Global Employment Trends 2013* report indicates, the crisis has led to a slowdown in poverty reduction that could adversely affect growth of the emerging middle class.[20]

Important differences may also be observed in the trends in middle-income groups by region: with the most striking expansion in Asia and Latin American economies, and more heterogeneous growth in African economies.[21] The differences can partly be explained by growth and employment performance, but social policies have also played a role. Social policies that reduce inequality are particularly important, as research demonstrates that more economic growth is required to alleviate poverty where inequality is high.[22]

In Asia, the middle-income group increased in all countries for which data are available over the past decade. The main drivers of this change have been China, where 107 million people have joined the middle-income group over the past decade, and India, where almost 15 million people have done so. In China (an upper-middle-income economy), growth in the middle-income group has been

19. In upper-middle-income economies the majority of those in the middle income group are in the USD 10-20 range: 351 million of the 484 million in 2010.
20. ILO (2013).
21. All income groups (poor, floating and middle income group) are calculated using ranges corresponding to the income level of the country as indicated in the text.
22. Many studies suggest that high inequality can reduce the impact of growth on poverty, thus hampering the pace of poverty reduction: Berg and Ostry (2011); UN-DESA (2010); UNRISD (2010); Fosu (2009); Bourguignon (2004); Ames et al. (2001); Chen and Ravallion (2001).

Figure 2.6 Incidence of different income groups in emerging and developing economies, selected economies, 2010 (percentage)



Notes: The figure shows the share of each of the three income groups as a percentage of total population of each country. For a complete list of economies in each income group and definition of income thresholds, see Appendix A. For the majority of countries the data are estimated from consumption surveys. Survey coverage is less than 50 per cent in Middle East and North Africa in 2010 and in South Asia in 1999.

Source: IILS calculations based on PovcalNet data of the World Bank.

well documented.[23] Over the same period, the share of the poor in the population decreased by more than 30 percentage points (less than USD 4 per day), while the floating group increased by 23 percentage points and constituted 33 per cent of the population in 2010 (see figure 2.6, panel C). High and increasing inequalities (an increase in the Gini coefficient from 39.2 to 42.1 between 1999 and 2009) might have curtailed the expansion of the middle-income group somewhat.

India (a lower-middle-income economy) also experienced a significant decline in the share of poor individuals (less than USD 2 per day) between 1999 and 2010 (from 79 per cent to 69 per cent), while the floating group increased by an almost equivalent amount (10 percentage points). The gain in the middle-income group over the period was only 1 percentage point. As shown in figure 2.6, panel B, the poor and vulnerable represent 97 per cent of the population. Importantly, inequalities also increased between 1999 and 2010 by 4 percentage points (an increase in the Gini coefficient from 29 to 34).

In Latin America, after experiencing stagnation in the 1990s, the middle-income group increased significantly in the majority of countries for which data are available in the past decade. It should, however, be noted that the majority of the population in most economies is still in the floating group and so faces the risk of falling back into poverty.

Among Latin American economies that are in the upper-middle-income group, the growth in the size of the middle class was particularly high in Brazil (increase of 16 percentage points) between 1999 and 2010. Poverty rates also decreased considerably; while the floating group increased marginally. While economic growth was also strong, a striking decline in inequality in terms of the Gini coefficient was also observed (by more than 5 points). The country also implemented ambitious labour and social policies, such as minimum wage increases (see Chapter 3), extension of social protection, policies that have encouraged greater job quality (such as rising formalization) and public employment programmes, and increased investments in health, education and infrastructure. Although the main objective of many of these programs was to alleviate poverty, such redistributive measures have helped reduce inequality and increase the size of the middle-income group.

In Honduras (a lower-middle-income country), the size of the middle-income group increased by 46 per cent, from 1.3 million to 1.9 million between 2005 and 2008, as the average GDP growth rate of 6 per cent was accompanied by a reduction in inequality. However, inequality began to increase again in 2008 and, coupled with negative GDP growth in 2009, slowed the pace of growth in the middle-income group to 10.5 per cent between 2008 and 2010, rising from 1.9 million to 2.1 million.

In the Middle East and North Africa (MENA), over the past decade, the majority of countries in the region for which data are available experienced a decline in poverty rates and an increase in the size of the middle-income group. However, in most economies the floating group contains the largest share of the population. Part of the improvements can be explained by the implementation of economic reforms that led to improved job creation – particularly in countries such as Morocco. Nevertheless, the situation remains fragile, as the role of government as the main jobs creator still remains important in terms of the overall size of the middle-income group.

23. See, for example, Asian Development Bank (2010); Chun (2010); Ravallion (2009).

Among lower-middle-income countries in the MENA region the increase in the size of the middle-income group over the past decade was particularly strong in Morocco, where it more than doubled, from 4 million in 1999 to 9 million in 2010. In this country the number of poor individuals declined by 61 per cent and the floating group increased by 18 per cent. However, the poor and vulnerable still represented 70 per cent of the population in 2010.

Among upper-middle-income countries in the region, the decrease in poverty rates was significant in Jordan and Tunisia. In Jordan the number of poor people decreased by 33 per cent between 1999 and 2010, while the floating group increased by 73 per cent, from 1.9 million to 3.4 million, and the middle-income group more than doubled, from 0.4 million to 1.1 million. In Tunisia, where the number of poor decreased by 39 per cent, the floating group increased by 43 per cent and the middle-income group doubled, from 1.1 million in 1999 to 2.2 million in 2010.[24]

The middle-income group is least represented in Sub-Saharan Africa, where the majority of countries in this region have a high percentage of poor and vulnerable groups in the population. However, there has been some progress due to strong economic growth coupled with a reduction in income inequality in some countries.

Among low-income economies, middle-income groups represented 10 per cent and 13 per cent of the population in Uganda and Togo, respectively, in 2010, up from 4 per cent in the former and 7 per cent in the latter in 1999. The share of poor individuals in the population declined significantly in both countries between 1999 and 2010, by 12 percentage points in Togo (from 67 per cent in 1999 to 55 per cent) and 22 percentage points in Uganda (from 83 per cent to 61 per cent). Over the past decade, the share of the floating group increased by about half of the decline in poverty in both countries and the share of the poor and vulnerable together represented roughly 90 per cent of the population in 2010.

Among lower-middle- and upper-middle-income countries in sub-Saharan Africa the share of the middle-income group grew in South Africa (from 12 per cent to 18 per cent), in Gabon (from 6.3 per cent to 22 per cent) and Cape Verde (from 12 per cent to 25 per cent) between 1999 and 2010. In both Cape Verde and Gabon, there was a significant decline in poverty, as the share of poor individuals in the population declined by roughly 20 percentage points in Cape Verde (from 45 per cent of the population in 1999 to 24 per cent in 2010) and 34 percentage points in Gabon (from 62 per cent to 28 per cent) over the same period. The floating group increased in both countries, but by less than half the decline in poverty in Cape Verde, where it increased by about 7 percentage points. In Gabon the floating group increased by 18 percentage points. Strong growth played a role in both economies, but was accompanied by the achievement of many social priorities. Cape Verde, in particular, is part of the group of African economies that is on track to attain all eight of the Millennium Development Goals by 2015.

24. It should be noted that Tunisia's poverty data were revised upwards after the January 2011 revolution (see National Statistics Institute, Tunisia for updated data: http://www.ins.nat.tn, and ILO (2011c) for a more detailed discussion on poverty and social protection in Tunisia).

D. Policy challenges

The creation of more and better jobs is a significant factor in achieving a more balanced distribution of income in both advanced and developing economies. As discussed in Chapters 4 and 5, this will require job-friendly macroeconomic policies, more productive investment and well-designed employment programmes. Public policies that bolster the incomes of poor and vulnerable groups, such as minimum wages (as discussed in Chapter 3), are also needed, as well as social protection systems, such as unemployment benefits, pensions and social transfers, and well-designed tax policies.

In developing countries, the most important policy challenge is to consolidate recent progress in reducing poverty and inequality and to provide a social protection floor to the "floating group" that lies just above the poverty line. Those in vulnerable groups often work in the informal sector and so measures to extend labour law and social protection to informal enterprises are one important aspect of the challenge.[25]

In both advanced and developing countries, access to better health and education are correlated with stronger middle-income groups.[26] Public policies aimed at promoting decent work opportunities and reducing inequalities, both in monetary and non-monetary terms, allow the vulnerable to strengthen their position and take advantage of opportunities to move up the income ladder.

While these public policies help to create and solidify middle-income groups, those middle-income households are also important contributors to domestic demand. Thus they can contribute to a virtuous circle of sustainable growth.

25. OECD (2010).
26. See, for example, Asian Development Bank (2010) and African Development Bank (2011).

Appendix A

Country classifications by income level

Low-income economies	Lower-middle-income economies	Upper-middle-income economies
Bangladesh (BGD)	Albania (ALB)	Algeria (DZA)
Benin (BEN)	Armenia (ARM)	Angola (AGO)
Burkina Faso (BFA)	Belize (BLZ)	Argentina (ARG)
Burundi (BDI)	Bhutan (BTN)	Azerbaijan (AZE)
Cambodia (KHM)	Bolivia (BOL)	Belarus (BLR)
Central African Republic (CAF)	Cameroon (CMR)	Bosnia and Herzegovina (BIH)
Chad (TCD)	Cape Verde (CPV)	Botswana (BWA)
Comoros (COM)	Congo, Rep. (COG)	Brazil (BRA)
Congo, Dem. Rep. (ZAR)	Côte d'Ivoire (CIV)	Bulgaria (BGR)
Ethiopia (ETH)	Djibouti (DJI)	Chile (CHL)
Gambia, The (GMB)	Egypt (EGY)	China (CHN)
Guinea (GIN)	El Salvador (SLV)	Colombia (COL)
Guinea-Bissau (GNB)	Fiji (FJI)	Costa Rica (CRI)
Haiti (HTI)	Georgia (GEO)	Dominican Rep. (DOM)
Kenya (KEN)	Ghana (GHA)	Ecuador (ECU)
Kyrgyz Republic (KGZ)	Guatemala (GTM)	Gabon (GAB)
Liberia (LBR)	Guyana (GUY)	Iran (IRN)
Madagascar (MDG)	Honduras (HND)	Jamaica (JAM)
Malawi (MWI)	India (IND)	Jordan (JOR)
Mali (MLI)	Indonesia (IDN)	Kazakhstan (KAZ)
Mauritania (MRT)	Iraq (IRQ)	Latvia (LVA)
Mozambique (MOZ)	Lao PDR (LAO)	Lithuania (LTU)
Nepal (NPL)	Lesotho (LSO)	Macedonia, FYR (MKD)
Niger (NER)	Micronesia (FSM)	Malaysia (MYS)
Rwanda (RWA)	Moldova (MDA)	Maldives (MDV)
Sierra Leone (SLE)	Morocco (MAR)	Mexico (MEX)
Tajikistan (TJK)	Nicaragua (NIC)	Montenegro (MNE)
Tanzania (TZA)	Nigeria (NGA)	Namibia (NAM)
Togo (TGO)	Pakistan (PAK)	Panama (PAN)
Uganda (UGA)	Papua New Guinea (PNG)	Peru (PER)
	Paraguay (PRY)	Romania (ROM)
	Philippines (PHL)	Russian Federation (RUS)
	São Tomé and Príncipe (STP)	Serbia (SRB)
	Senegal (SEN)	Seychelles (SYC)
	Sri Lanka (LKA)	South Africa (ZAF)
	Sudan (SDN)	St. Lucia (LCA)
	Swaziland (SWZ)	Suriname (SUR)
	Syria (SYR)	Thailand (THA)
	Timor-Leste (TMP)	Tunisia (TUN)
	Ukraine (UKR)	Turkey (TUR)
	Viet Nam (VNM)	Turkmenistan (TKM)
	West Bank and Gaza (WBG)	Uruguay (URY)
	Yemen (YEM)	Venezuela, Bol. Rep. of (VEN)
	Zambia (ZMB)	

Source: World Bank. Economies are classified according to 2011 gross national income (GNI) per capita.

Note: Low-income corresponds to: USD 1,025 or less; lower-middle-income: USD 1,026–4,035; upper-middle-income: USD 4,036–12,475.

Income classifications set on 1 July 2012 and calculated using the World Bank Atlas method (http://siteresources.worldbank.org/DATASTATISTICS/Resources/CLASS.XLS).

References

Abel, J.; Deitz, R. 2012. "Job polarization and rising inequality in the nation and the New York–Northern New Jersey region", in *Current Issues in Economics and Finance*, Vol. 18, No. 7 (New York, Federal Reserve Bank of New York). Available at: http://www.newyorkfed.org/research/current_issues/ci18-7.pdf [24 Apr. 2013].

Acemoglu, D.; Autor, D.H. 2011. "Skills, tasks and technologies: Implications for employment and earnings", in O. Ashenfelter and D. Card (eds): *Handbook of labor economics*, Vol. 4, Part B, pp. 1043–1171 (Amsterdam, Elsevier).

African Development Bank. 2011. "The middle of the pyramid: Dynamics of the middle class in Africa", *Market Brief*, 20 Apr. 2011 (Abidjan).

Ames, B. et al. 2001. *Macroeconomic policy and poverty reduction* (Washington, DC, IMF and World Bank). Available at: http://www.imf.org/external/pubs/ft/exrp/macropol/eng/ [16 May 2013].

Asian Development Bank. 2010. "The rise of Asia's middle class", in *Key Indicators for Asia and the Pacific*, 41st edition, pp. 3–57. (Mandaluyong City). Available at: http://www.adb.org/sites/default/files/pub/2010/Key-Indicators-2010.pdf [24 Apr. 2013].

Atkinson, A.B.; Brandolini, A. 2011. *On the Identification of the "middle class"*, Working Paper No. 2011–217 (Verona, Society for the Study of Economic Inequality (ECINEQ)).

Berg, A.; Ostry, J. 2011. *Inequality and unsustainable growth: Two sides of the same coin?* IMF Staff Discussion Note (Washington, DC, IMF). Available at: http://www.imf.org/external/pubs/ft/sdn/2011/sdn1108.pdf [16 May 2013].

Bigot, R. et al. 2011. *Les classes moyennes en Europe,* Cahier de Recherche No. 282 (Paris, Crédoc). Available at: http://www.credoc.fr/pdf/Rech/C282.pdf [24 Apr. 2013].

Birdsall, N. 2010. "The (indispensable) middle class in developing countries", in R. Kanbur and M. Spence (eds): *Equity and growth in a globalizing world* (Washington DC, The Commission on Growth and Development), 157–187. Available at: http://siteresources.worldbank.org/EXTPREMNET/Resources/489960-1338997241035/Growth_Commission_Equity_Growth_Globalizing_World.pdf [12 Apr. 2013].

Bourguignon, F. 2004. *The poverty-growth-inequality triangle*. Paper presented at the Indian Council for Research on International Economic Relations (World Bank), New Delhi, 4 Feb.

Boushey, H.; Hersh, A.S. 2012. *The American middle class, income inequality, and the strength of our economy: New evidence in economics* (Washington, DC, Center for American Progress). Available at: http://www.americanprogress.org/wp-content/uploads/issues/2012/05/pdf/middleclass_growth.pdf [12 Apr. 2013].

Campbell, M. 2013. "Bourgeois, moi? French middle class shrinks", in *The Sunday Times*, May 19.

Card, D.; Lemieux, T; Riddell, W. 2003. "Unions and the wage structure", in J. Addison and C. Schnabel (eds): *The international handbook of trade unions* (Cheltenham, Edward Elgar).

Castellani, F.; Parent, G. 2011. *Being "middle-class" in Latin America*, OECD Development Centre Working Paper No. 305 (Paris, OECD).

Chen, S.; Ravallion, M. 2001. "How did the world's poorest fare in the 1990s?", in *Review of Income and Wealth*, Vol. 47, No. 3, pp. 283–300.

Choi, W. et al. 2013. *Beyond Korean style: Shaping a new growth formula* (Seoul and San Francisco, McKinsey Global Institute). Available at: http://www.mckinsey.com/insights/asia-pacific/beyond_korean_style [25 Apr. 2013].

Chun, N. 2010. *Middle class size in the past, present and future: A description of trends in Asia*. ADB Economics Working Paper Series No. 217 (Manila, Asian Development Bank). Available at: http://www.adb.org/sites/default/files/pub/2010/economics-wp217.pdf.

Esteban, J-M.; Ray, D. 1994. "On the measurement of polarization", in *Econometrica*, Vol. 62, No. 4, pp. 819–851.

Ferreira, F.H.G. et al. 2013. *Economic mobility and the rise of the Latin American middle class*' (Washington, DC, World Bank). Available at: http://siteresources.worldbank.org/LACEXT/Resources/English_Report_midclass.pdf [12 Apr. 2013].

Fosu, A.K. 2009. "Inequality and the impact of growth on poverty: Comparative evidence for sub-Saharan Africa", in *Journal of Development Studies*, Vol. 45, No. 5, pp. 726–745.
Frick, J.R.; Krell, K. 2010. *Measuring income in household panel surveys for Germany: A comparison of EU-SILC and SOEP*, SOEP papers on Multidisciplinary Panel Data Research No. 265 (Berlin, Deutsches Institut für Wirtschaftsforschung [The German Institute for Economic Research]. Available at: http://ideas.repec.org/p/diw/diwsop/diw_sp265.html.
Gigliarano, C.; Mosler, K. 2009. *Measuring middle-class decline in one and many attributes*, Working Paper No. 333, Dipartimento di Scienze Economiche e Sociali (Rome, Universita' Politecnica delle Marche). Available at: http://ideas.repec.org/p/anc/wpaper/333.html [15 Apr. 2013].
Goos, M.; Manning, A. 2007. "Lousy and lovely jobs: The rising polarization of work in Britain", in *The Review of Economics and Statistics*, Vol. 89, No. 1, pp. 118–133.
Hoeller, P. et al. 2012. *Less income inequality and more growth – Are they compatible? Part 1. Mapping income inequality across the OECD,* OECD Economics Department Working Paper No. 924 (Paris, OECD).
International Labour Organization (ILO). 2013. *Global Employment Trends 2013: Recovering from a second jobs dip* (Geneva).
—. 2012. *World of Work Report 2012: Better jobs for a better economy* (Geneva, ILO).
—. 2011a. *World of Work Report 2011: Making markets work for jobs* (Geneva, ILO).
—. 2011b. *Spain: Quality jobs for a new economy* (Geneva, ILO). Available at: http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_158537/lang--en/index.htm [25 Apr. 2013].
—. 2011c. *Tunisia: A new social contract for fair and equitable growth* (Geneva, ILO). Available at: http://www.ilo.org/global/publications/ilo-bookstore/order-online/books/WCMS_164544/lang--en/index.htm [29 May 2013].
—. 2008. *World of Work Report 2008: Income inequalities in the age of financial globalization* (Geneva, ILO).
Jaimovich, N.; Siu, H.E. 2012. *The trend is the cycle: Job polarization and jobless recoveries*, NBER Working Paper No. 18334 (Cambridge, MA, National Bureau of Economic Research). Available at: http://ideas.repec.org/p/nbr/nberwo/18334.html [15 Apr. 2013].
Kharas, H.; Gertz, G. 2010. "The new global middle class: A cross-over from west to east", in L. Cheng (ed.): *China's emerging middle class: Beyond economic transformation* (Washington, DC, The Brookings Institution), pp. 32–51. Available at: http://www.brookings.edu/~/media/research/files/papers/2010/3/china%20middle%20class%20kharas/03_china_middle_class_kharas. [25. Apr. 2013].
Koske, I.; Fournier, J.; Wanner, I. 2012. *Less income inequality and more growth – Are they compatible? Part 2. The distribution of labour income*, OECD Economics Department Working Paper No. 925 (Paris, OECD).
Macculi, I. 2009. *Essays on polarization, multidimensional poverty and health-related effects: An Application to Switzerland*, PhD thesis, No. SES 711 (Geneva, University of Geneva). Available at: http://archive-ouverte.unige.ch/unige:14272[22 Apr. 2013].
Mishel, L.; Schmitt, J.; Shierholz, H. 2013. *Assessing the job polarization explanation of growing wage inequality*, Working Paper Research No. 295 (Washington, DC, Economic Policy Institute). Available at: http://www.epi.org/publication/wp295-assessing-job-polarization-explanation-wage-inequality [25 Apr. 2013].
Organisation for Economic Co-operation and Development (OECD). 2009. *Pensions at a glance 2009: Retirement-income systems in OECD countries: Online country profiles, including personal income tax and social security contributions: Norway* (Paris). Available at: http://www.oecd.org/els/public-pensions/43021599.pdf. [25 Apr. 2013].
—. 2010. *Latin American Economic Outlook 2011: How middle-class is Latin America?* (Paris).
—. 2011. *Divided we stand why inequality keeps rising* (Paris). Available at: http://dx.doi.org/10.1787/9789264119536-en [26 Apr. 2013]
Pew Research Center. 2013. *A rise in wealth for the wealthy, declines for the lower 93%* (Washington, DC). Available at: http://www.pewsocialtrends.org/2013/04/23/a-rise-in-wealth-for-the-wealthydeclines-for-the-lower-93/ [30 Apr. 2013].

—. 2012. *The lost decade of the middle class: Fewer, poorer, gloomier* (Washington, DC). Available at: http://www.pewsocialtrends.org/2012/08/22/the-lost-decade-of-the-middle-class [22 Apr. 2013].
—. 2009. *The global middle class: Views on democracy, religion, values, and life satisfaction in emerging nations* (Washington, DC). Available at: http://www.pewglobal.org/files/pdf/1051.pdf [16 May 2013].
Pressman, S. 2007. "The decline of the middle class: An international perspective", in *Journal of Economic Issues*, Vol. 41, No. 1, pp. 181–200.
Ravallion, M. 2009. *The developing world's bulging (but vulnerable) "middle class"*, Policy Research Working Paper Series No. 4816 (Washington, DC, The World Bank). Available at: http://ideas.repec.org/p/wbk/wbrwps/4816.html [22 Apr. 2013].
Seshanna, S.; Decornez. S. 2003. "Income polarization and inequality across countries: An empirical study", in *Journal of Policy Modeling*, Vol. 25, No. 4, pp. 335–358. Available at: http://dx.doi.org/10.1016/j.bbr.2011.03.031 [22 Apr. 2013].
Thurow, L. 1987. "A surge in inequality", in *Scientific American*, Vol. 256, No. 5, pp. 30–37.
UN-DESA. 2010. *Report on the world social situation, rethinking poverty* (New York, United Nations). Available at: http://social.un.org/index/ReportontheWorldSocialSituation/2010.aspx [16 May 2013].
UNRISD. 2010. *Combating poverty and inequality, structural change, social policy and politics*. (Geneva, UNRISD). Available at: http://www.unrisd.org/publications/cpi [16 May 2013].
Wolfson, M.C. 1994. "When inequalities diverge", in *The American Economic Review,* Vol. 84, No. 2, pp. 353–358.
Zhang, X.; Kanbur, R. 2001. "What difference do polarisation measures make? An application to China", in *The Journal of Development Studies*, Vol. 37, No. 3, pp. 85–98.

Role of minimum wages in rebalancing the economy

3

Main findings

- Minimum wages can be a powerful tool for supporting decent work goals and can be a crucial complement to the strengthening of social protection floors and poverty alleviation efforts. This tool has become even more relevant as many of these countries need to boost domestic sources of growth in order to counteract the weakening of exports to crisis-hit advanced economies. Rising minimum wages can help to rebalance sources of growth even with limited fiscal space.
- This chapter shows that, for the above benefits to be reaped in the context of the present crisis minimum wage systems need to be well designed. First, the coverage of minimum wage systems should be improved. About half of the 151 countries for which data exist do not have a comprehensive system of minimum wages. Partial coverage reduces the effectiveness of minimum wages as a demand management tool. It also runs the risk of creating unfair competition between enterprises and sectors.
- Second, the level of minimum wages should be carefully considered. Too low a level reduces the relevance of minimum wages; too high a level runs the risk of firms refusing to comply with minimum wage legislation. Setting the level of minimum wage is a complex matter and this chapter provides interesting insights into recent innovations, such as those employed in Costa Rica and India. These countries have managed to achieve higher compliance rates through regular updates of the system, involvement of social partners and enhanced enforcement institutions.
- Third, good design can help to support the goal of improving incomes in the informal economy and reducing wage inequality. This chapter finds a positive association between minimum wages and earnings in the informal economy in majority of the countries for which detailed analysis could be performed. Countries that have improved compliance were able to reduce wage inequality.

- Fourth, empirical analysis suggests that the direct effect of minimum wages on employment levels in developing countries has tended to be small or insignificant. However, if carefully crafted, minimum wages can have important indirect effects in terms of developing new markets and increased aggregate demand, thus paving the way for new investment opportunities and job growth (see also Chapter 4).

Introduction

In recent years, there has been growing interest in the role of minimum wages in promoting social justice by improving the lives of low-paid workers, and also in rebalancing national economies. In Brazil, a stronger national minimum wage and "Bolsa família" – a conditional cash transfer programme – are two of the most widely credited measures to explain the reduction of poverty, which has fuelled the country's economic engine.[1] In China, coordinated minimum wage increases across Provinces have been a key part of a strategy to reduce inequality and rebalance the economy, encouraging stronger domestic consumption in the face of falling export demand and reduced scope for investment-led growth. In the United Kingdom, where minimum wages were introduced at the beginning of the twentieth century, abolished in the 1980s and reinstated in the 1990s, a survey of political experts has identified the national minimum wage as a successful Government policy.[2] In the United States, too, a higher minimum wage has come to be seen by many as a way to reduce poverty and inequality and provide a stimulus to the economy with potentially favorable fiscal effects, including through reduced costs of anti-poverty programs and increased tax revenue.[3]

The present chapter discusses the potential of minimum wage policies to rebalance domestic economies. It first reviews the linkages between minimum wages and aggregate demand, including recent findings from the literature regarding the effects of minimum wages on inequality, poverty and employment (section A).

The chapter then examines how the impact of minimum wages on aggregate demand depends on the inclusion of specific design features (section B). It analyses the role of minimum wage coverage and provides new estimates of the proportion of workers who are entitled to minimum wages in selected countries, illustrating how widely legal coverage can vary across countries. The section then emphasizes the importance of setting minimum wages at an appropriate level, in a way that balances the needs of workers and their families with economic factors, to avoid counter-productive macroeconomic and employment effects. It compares the level of minimum wages across a diverse group of countries, estimating a set of indicators frequently used in the literature. Section B also highlights how the effectiveness of minimum wages ultimately depends on compliance and enforcement institutions. Finally, section C considers the aggregate demand and employment effects of minimum wages, taking the design features described in the previous section into account.

---

1. See, for example, *The Economist*, 14 Nov. 2009, "A special report on business and finance in Brazil" and de Melo et al., 2012.
2. See http://www.instituteforgovernment.org.uk/pdfs/PSA_survey_results.pdf and http://www.bbc.co.uh/news/uk-politics-11896971?print=true
3. "US minimum wage rise makes sense", *Financial Times*, 20 Feb. 2013.

A. Minimum wages and jobs: A review of the literature

Minimum wages can help to rebalance the economy…

As noted in Chapter 1, the global crisis has had significant negative repercussions for labour markets in many parts of the world and recovery has been uneven. Chapter 2 shows that inequalities including wages has increased in the majority of advanced countries for which data are available, and in developing and emerging economies they remain relatively high, suggesting that the benefits of recovery may be unevenly shared. At the same time, in many economies average real wages have been stagnating or declining (ILO, 2012). These recent changes have taken place in the context of two longer term trends: namely, the growing inequality in the personal distribution of wages and the decline in the share of labour compensation in national income in a majority of countries for which data are available. Previous issues of the *World of Work Report* have documented how the labour income share – the share of domestic income that goes to labour – has declined over the long term, with the exception of a temporary counter-cyclical increase in 2009 (ILO, 2011).

In many instances, these trends have contributed to weakening domestic aggregate demand, though the effects in some countries were mitigated by debt-financed consumption, with household debt becoming a substitute for higher wages as a source of consumption demand. This has been the case in the United States, for example, where consumption increased rapidly prior to the crisis in spite of stagnating median wages and where strong private consumption was accompanied by trade deficits and capital inflows. Other countries, such as China, Germany and Japan compensated for the stagnant domestic demand with export-led growth strategies and current account surpluses. These two models were naturally interconnected as the debt-driven growth of some countries was the facilitating factor in the export-led growth of other countries (Hein and Mundt, 2012). The crisis, however, showed that such internal and global imbalances were unsustainable. To enable a sustainable recovery, it is imperative that, in the future, countries with an export surplus rebalance their economies from external to internal sources of demand, while countries with an export deficit that are reliant on household debt will need to base their recovery on income-led consumption and investment rather than debt-led consumption and investment.

In such a context, minimum wages, if set and operated effectively, can play a useful role in weathering the crisis, as they can help to reduce inequality and support aggregate demand by transferring resources to low-paid workers. Such redistribution can have a positive demand effect because the marginal propensity to consume out of wages is greater than the marginal propensity to invest out of profits.[4] Higher wages can also encourage investment, as enterprises will only invest if they anticipate adequate demand from consumers (see Chapter 4). Higher income from minimum wages among the low- and middle-income groups can lead to a virtuous cycle of greater consumption and investment and also create more employment opportunities.

It must be borne in mind, however, that this positive scenario is not the only possible outcome. The overall macroeconomic impact of a minimum wage depends not only on how it affects consumption and investment, but also on how

4. Herr, et al., 2009; Lavoie, 2009; Stockhammer, 2012; Stockhammer, et al., 2007.

it affects competitiveness and whether it affects net exports and if so by how much. The net effect therefore depends on country-specific circumstances. The strategy of raising the minimum wage may be more challenging for small open developing economies that derive most of their demand from abroad, if their exports are very sensitive to prices, that is, if they compete primarily on price rather than quality. In countries where domestic consumption is a large part of the economy or where export industries are moving up the value-added chain the environment is likely to be more permissive.

The role of minimum wages in boosting domestic demand in times of crisis can be illustrated by the case of the Latin American economies. Many of these economies raised minimum wages, which not only supported consumption but also boosted investment and growth (ECLAC, 2012). In many of these economies the rise in minimum wages also contributed to the creation of a middle class, thus creating room for autonomous growth and enhancing social cohesion. It is worth noting in this context that Latin America is one of the few regions where the risk of social unrest has abated (Chapter 1).

…because they can reduce inequality…

Recent research traces the channels through which minimum wages can act to boost demand. First, there is the redistributive effect of minimum wages towards low-paid workers with a high propensity to consume. Minimum wages have been shown to reduce wage inequality in the lower tail of the earnings distribution in a number of advanced economies.[5] In the United Kingdom, for instance, minimum wage increases during the period 1999–2007 were associated with a systematic annual reduction in lower tail wage inequality (Dolton et al., 2010), while in the United States the erosion of minimum wages has actually resulted in a rise in inequality in the lower tail of the wage distribution (Autor et al., 2010).

Research also lends support to the premise of the equality-enhancing role of minimum wages in developing economies.[6] In Indonesia minimum wages have helped to reduce wage inequality at the bottom end of the wage distribution, while in Colombia minimum wages benefited those households in the 25th and 80th centiles of household income distribution. In Brazil minimum wage increases translated into greater improvements for middle-income groups than for their low-income counterparts. Most of these studies also show that the low-paid, low-skilled and women benefit from minimum wages to a greater extent than other groups. They also have an effect on average wages. For example, according to evidence for Latin America, a 10 per cent increase in minimum wages would entail an increase in average wages of between 1 and 6 per cent (Cunningham, 2007). A 1 per cent increase in minimum wages lowered the incidence of poverty by 0.12 percentage points in Nicaragua (Alaniz, et al., 2011) and by 0.22 percentage points in Honduras (Gindling and Terrell, 2010).

5. See, for example, Lee (1999) for the United States; Butcher et al. (2012), Dickens and Manning (2004) and Dolton et al. (2010) for the United Kingdom; and Vaughan-Whitehead (2011) for other European countries.

6. This paragraph is based on the following empirical evidences: Chun and Khor (2010), for Indonesia; Arango and Pachón (2004) for Colombia; and Lemos (2007, 2009) for Brazil.

…without hurting employment.

One potential risk with minimum wages is that they may hurt employment if they are set too high. The recent literature, particularly careful micro-economic studies, suggests that in most cases there are only small or no negative employment effects of minimum wages. This is confirmed by two recent reviews of the empirical literature. First, a review of 64 recent studies on the impacts of minimum wages in the United States concluded that there was little or no evidence of a negative employment impact (Doucouliagos and Stanley, 2009). Second, a review of 55 studies in 15 industrial countries found that not only were the effects of minimum wages different across countries, but also the size of the effects were small (Boockmann, 2010). Many economists now believe that the employment effects of minimum wages are minimal (Chipman, 2006). The United Kingdom Low Pay Commission reached the same conclusion after commissioning a large body of research during the first 10 years of the country's new national minimum wage (The Low Pay Commission, 2009). And 4 years after the onset of the crisis, the most recent research has continued to find little evidence of significant adverse employment effects.[7] Some studies still find that minimum wages reduce employment of teenagers and low-skilled workers (Neumark and Washer, 2008).[8] Yet, even those studies tend to find relatively small effects, with the implication that minimum wages generally increase the share of earnings going to low-paid workers.

A growing body of evidence is also now available for developing economies. The employment effect of minimum wages has been found to depend on the economic context, level at which the minimum wages are set, the extent of enforcement and the labour market peculiarities and institutions prevailing in each country (Lemos, 2004). Ni, et al. (2011) using data from China from 2000 to 2005 found no significant overall effects on employment, with negative employment effects in one region and positive employment effects in two regions. Similarly, in an analysis on Brazil covering the period 1982 to 2004, Lemos (2007) found no employment effects of minimum wages, either in terms of the number of jobs or in terms of working hours. Similar results arise from studies on Indonesia. Rama (2001) found that doubling the minimum wage had negative employment effect but the results varied according to the size of the enterprise – negative employment effects for firms with fewer than 20 workers and a positive effect for medium-sized and large firms. Suryahadi et al. (2001) also found that a 10 per cent increase in the minimum wage would reduce employment by 1.2 per cent. More recent empirical evidence has shown that a minimum wage hike in Indonesia was associated with a net increase in total (formal and informal) employment: the increase in informal-sector employment more than offset the corresponding loss of jobs in the formal sector (Chun and Khor, 2010; Comola and de Mello, 2009).

7. The Low Pay Commission Report (2012), p. 56, and see Dolton et al. (2010).
8. According to Dolton et al. (2010), the diversity in empirical findings could be largely due to the use of different estimated parameters or methodologies, different types of data, different indicators, different age-groups and different macro indicators, which not only makes comparison difficult, but also exacerbates the difficulty of pinpointing the net employment effects.

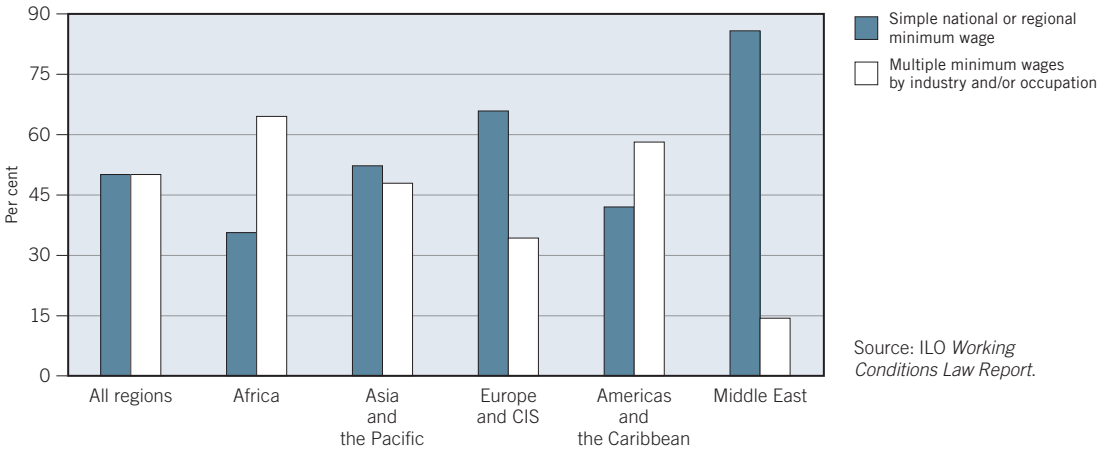
B. Key design features of minimum wage systems

The effectiveness of minimum wages depends, first, on the legal coverage of minimum wage systems…

The extent to which minimum wages can transfer resources to low-paid workers and stimulate private consumption depends on a number of key factors. First, this chapter considers legal coverage. The term "legal coverage" refers to workers who have been included in the minimum wage legislation and who are therefore entitled to be paid at least the minimum wage. The extent of legal coverage depends largely on whether a country operates a broad national minimum wage, which applies to all wage workers across the country (with some possible exceptions) or a more complex and partial system of minima that apply only to selected industries or occupations. The ILO *Working Conditions Law Report*, which reviews the 151 countries and territories, shows that about half of the countries under review implement a minimum wage system, which applies uniformly on a national or regional basis. Remaining countries implement systems with multiple rates, which vary by industry and/or occupation (see figure 3.1).[9] The fact that single or multiple systems of minimum wages exist in different countries is often due to historical developments (see box 3.1).

The proportion of wage earners covered by minimum wage systems is higher in countries where national minimum wages exist than in countries where industry-specific minimum wages prevail. As an illustration, legal coverage[10] has been estimated in selected developing economies for which such information is not readily available, namely Brazil, Costa Rica, India, Indonesia, Mali, Mexico, Peru, the Philippines, South Africa, Turkey and Viet Nam.[11] To identify workers who are covered, the categories of workers covered by minimum wage legislation are

Figure 3.1 Minimum wage systems across the world



Source: ILO *Working Conditions Law Report*.

9. These minimum wages are then fixed, either by Government alone or in consultation with the social partners or following the recommendation or consultation of a specialized body (ILO, 2010).
10. The legal information in this chapter relates to the analysis of the most recent labour legislation, such as labour codes, wage decrees, etc. The chapter does not examine or analyse the judicial decision-making (jurisprudence), which may affect the interpretation of the legislation and, by extension, expand or diminish legal coverage.
11. These countries have been chosen as they represent different systems of minimum wages, different levels of development, different institutional environments and have varying proportions of wage workers.

Box 3.1 ILO Minimum Wage Conventions: A historical overview

When they were first introduced in New Zealand and Australia at the end of the nineteenth century, and in the United Kingdom in 1909, minimum wages covered very few categories of workers. Their main purpose was to protect workers who were not covered by collective agreements and who were particularly vulnerable to low-pay conditions. The concept of minimum wages was therefore one of selective intervention, in which wage determination was considered best left to the social partners, with Government intervening only in special circumstances. Consistent with such a view, selective minimum wages have sometimes been described as a temporary "second-best" option, to be discarded once collective bargaining has been established. So, for example, the United Kingdom trade boards were described by the Minister of Labour of the time as a "temporary expedient facilitating organisation within the industry, so that, in the course of time, the workers or the employers will not have need for the statutory regulations" (quoted in Starr, 1981, p. 20). It was only after the Second World War that coverage expanded and national minimum wages appeared in a significant number of countries. In France, for example, the national minimum wage (*salaire minimum interprofessionel garanti* – SMIG) was introduced in 1950. In the United States, coverage under the Fair Labor Standards Act of 1938 increased from about 20 per cent of the workforce initially to nearly 80 per cent by 1970 (Neumark and Wascher, 2008).

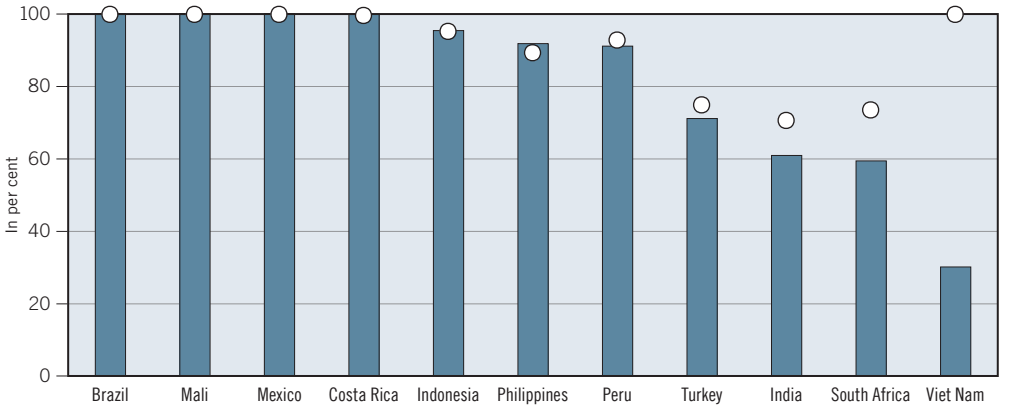
This historical evolution of minimum wages is also reflected in ILO Conventions. The ILO adopted the Minimum Wage-Fixing Machinery Convention, 1928 (ILO Convention No. 26) following a proposal by the British Government. This proposal was intended to protect workers in those trades with the most extreme working conditions, such as homeworkers and a few others with exceptionally low pay and where collective bargaining would generally not apply. The Convention was quickly ratified by a number of countries, such as Germany (1929), the United Kingdom (1929), Spain (1930), China (1930), France (1930), Ireland (1930), Italy (1930), Australia (1931), Chile (1933), Colombia (1933) and Mexico (1934), even though the economic depression of the 1930s represented a serious challenge for the implementation of labour standards. These countries were later followed by many more countries in the second half of the twentieth century, including Argentina (1950), India (1955), Brazil (1957) and a large number of newly independent African countries during the 1960s and thereafter. As a result, with 108 ratifications, this Convention is now one of the most widely ratified of all ILO Conventions. The adoption of the Convention itself played an important role in disseminating minimum wage strategies throughout both advanced and developing economies. It was identified as one of the key factors in the establishment of minimum wages in India and several other countries (Sankaran, 1997).

Importantly, ILO Convention No. 26 was limited to manufacture and commerce and excluded agriculture, which represented a significant share of the labour force, particularly in developing economies. Moreover, the implementation of minimum wages evolved beyond the framework of the Convention. The first gap was filled by the adoption in 1951 of the Minimum Wage Fixing Machinery (Agriculture) Convention (No. 99), which essentially complemented Convention No. 26. A greater advance was made, however, with the adoption in 1970 of the Minimum Wage Fixing Convention No. 131, in which minimum wages were conceived as part of a development strategy, i.e. as "one of a battery of measures in the strategy of an attack on poverty" (see ILO (1967) for more details). While ratification was rapid in the first 10 years following the adoption of Convention No. 131, the context changed after the oil-price shocks in the 1970s, the debt crises that affected developing countries in the 1980s and the implementation of structural adjustment policies in the 1980s and 1990s.

Since the start of the global financial crisis in 2008, minimum wages have once again attracted the attention of policy makers and economic experts and have gathered support as a tool for rebalancing the economy, particularly in developing countries.

matched with employment data from available surveys. For example, if minimum wage legislation applies to all wage earners except domestic workers, the coverage of minimum wages is estimated by calculating the ratio of non-domestic paid employment to total paid employment using household survey data. This methodology can be easily implemented in countries with a relatively uniform minimum wage system, but estimates are more complex when legislation takes different

Figure 3.2 Legal coverage of minimum wage legislation in selected developing economies



Note: The figure provides estimates of the proportion of dependent employment covered by minimum wage legislation in each of the countries. In all countries, public-sector employees are included in the estimates.

Source: IILS estimates based on legal information and data from household and labour force surveys.

categories of workers into account. The analysis takes into consideration two time periods, namely the mid-2000s and late-2000s, so as to examine how the legal coverage of minimum wage legislation has evolved over time (see Appendix A for a detailed explanation of the data sources used to estimate the legal coverage and Appendix B for details of legislation in the countries under analysis).[12]

There is universal legal coverage of minimum wages in almost half of the countries under analysis.[13] The case of Brazil illustrates how a simple national minimum wage can ensure universal coverage. In Brazil, the federal minimum wage applies to all wage workers and collective agreements can only provide for "wage floors" that are equal to or higher than the federal minimum wage.[14] Figure 3.2 shows that such legislation provides universal coverage, meaning that all paid employees are entitled to the federal minimum wage. In Viet Nam, the legal coverage of the minimum wage has been universal since 2010. Until 2006, the minimum wage system applied only to foreign-owned firms in certain regions. In 2007, the legal coverage was gradually extended, to domestic firms in major cities and finally to all workers in 2010. In Indonesia, Peru and the Philippines, the legislative coverage is almost universal (around 95 per cent) as minimum wages cover all employees except domestic workers.

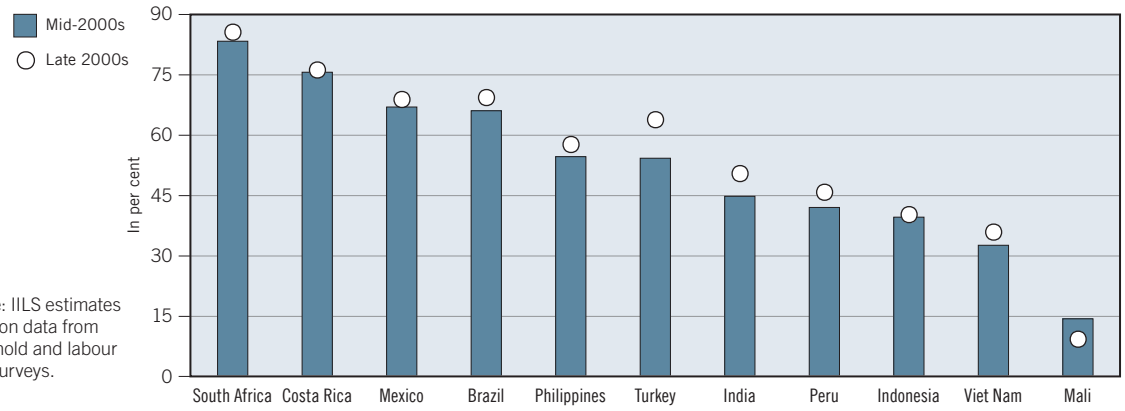
In India and South Africa, minimum wages apply to specific groups of workers. In India, the Central Government sets 45 minimum wage rates for different job categories in agriculture, mining, oil extraction and any corporation under its ownership. State governments determine minimum wage rates for 1,679 job categories among sectors "scheduled" (or listed) in the law. This has resulted in a very large number of minimum wage rates but only partial coverage: around two-thirds of wage earners, excluding public-sector workers, are covered by minimum wage legislation in India. In South Africa, the Ministry of Labour sets minimum wages – so-called "sectoral determinations" – for vulnerable workers in sectors

12. Appendix A provides the list of countries, the years for which analysis is undertaken and the household and labour force surveys used for analysis. Appendix B provides the "legal coverage" of the workers included in the minimum wage legislation and also those workers excluded at the country level. As an illustration, we also provide the level of minimum wage rates for Viet Nam. Finally, information on how minimum wages have been assigned to workers in the household survey data is also provided.

13. Although minimum wages for public-sector workers are set by discrete administrative procedures, we have included all public-sector employees in all countries under analysis with the assumption that all these employees receive wages above the minimum wage.

14. The legislation also specifies that, for piece-rate workers, the minimum wage paid per piece must be fixed in such a way that the wage paid to a worker is not lower than the normal daily minimum wage.

Figure 3.3 Dependent paid employment as a proportion of total employment in selected developing economies



Source: IILS estimates based on data from household and labour force surveys.

that are not covered by collective agreements. These sectoral determinations provide legal protection to more than half of all employees (figure 3.2).

Not all countries fall into this simple typology, however, some hybrid systems also exist. The example of Turkey highlights the case of a national minimum wage that provides less than universal coverage because the legislation is only applicable to employees who are registered with social security system. As more employees have registered with social security, the legal coverage of minimum wage increased from 71 per cent in 2005 to 75 per cent in 2011. Costa Rica has a complex system of sectoral and occupational minimum wages, which nonetheless provides universal coverage because it is complemented by a national wage floor (the so-called *mínimo minimorum*). Peru provides near universal coverage (except for domestic workers) and has a complex system of determining wages for certain occupational categories. Mexico has a general minimum wage and a complex system of minimum wages for more than 80 occupations with regional differentiation.

There is a popular perception in many developing countries that minimum wage laws do not cover certain segments of the economy, such as informal employment or firms with no trade union presence. However, this is not always the case. In some of the countries analysed in this chapter, certain provisions of minimum wage legislation are specifically targeted at unskilled/low-paid workers or those in the informal economy. For example, in India the minimum wages in the "schedules of employment" are set for unskilled workers – mostly employed in the informal economy. South Africa has sectoral minimum wage determinations for workers who are not part of a trade union. Similarly, many Latin American countries, including Brazil, Costa Rica, Mexico and Peru, have minimum wage legislation for all workers, irrespective of the sector or the status of the enterprises that employ them.

Partial coverage erodes the potential of minimum wages to redistribute resources in favour of all low-paid workers. The potential redistributive role of minimum wages can be further undermined in developing countries by the incidence of self-employment and unpaid family work, which is typically higher than in advanced economies. In the 11 countries under analysis, 52 per cent of workers are paid employees (generally referred to as "dependent paid employment"), on average. This proportion varies from 10–20 per cent in Mali to over 80 per cent in South Africa (figure 3.3). Therefore whether legal coverage is partial or universal, minimum wages may protect a lower share of all workers than coverage suggests. This emphasizes the need for developing countries to combine minimum wages with social protection policies in order to maximize the positive impacts of both policies on reduction of poverty, inequality and on increasing aggregate demand.

…second, the level at which minimum wages are set…

The success of minimum wage policy depends on the level at which it is set. If the minimum wage is set at too low a level, it may be ineffective in ensuring a minimum living income to workers and their families and may fail to act as an automatic aggregate demand stabiliser in the face of shocks. On the other hand, while carefully designed minimum wage policies can encourage domestic consumption and reduce low pay, combat inequality and narrow the gender pay gap, past experience also shows that mismanagement can have adverse economic and social consequences. If they are set too high or raised unexpectedly, minimum wages can trigger price inflation, hurt employment and/or lead to widespread non-compliance. Hence, a balanced approach is needed (Belser and Sobeck, 2012).

The balanced approach is enshrined in the text of the ILO *Minimum Wage Fixing Convention, 1970* (No. 131) which states that minimum wage setting should involve social partners and independent experts and take into consideration: (i) the needs of workers and their families, taking into account the general level of wages in the country, the cost of living, social security benefits and the relative living standards of other social groups; and (ii) economic factors, including the requirements of economic development, levels of productivity and the desirability of attaining and maintaining a high level of employment. Minimum wages should also be regularly adjusted to take account of fluctuations in the cost of living and other economic conditions.

One way to assess the level at which minimum wages should be set is through the ratio of minimum to median wages. The United Kingdom Low Pay Commission using national surveys and restricting the analysis to full-time workers estimated that among 13 advanced economies minimum wages in 2010 ranged from 37 per cent of median wages in Japan to about 60 per cent of median wages in France, with the country in the middle of the distribution being the United Kingdom with a ratio of 46 per cent (figure 3.4).

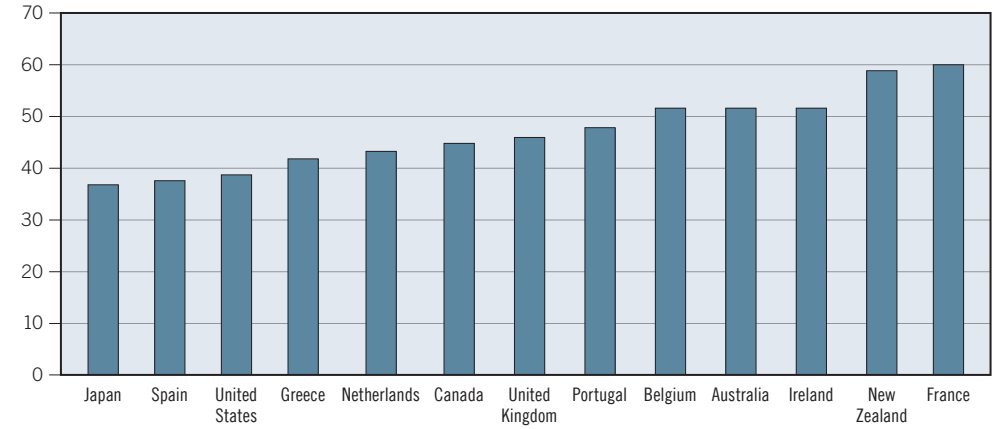
The present chapter provides estimates for the ratio of the level of minimum wages to median wages as well as to mean wages in the 11 developing economies under analysis. For countries that have multiple minimum wage rates, which vary by region, sectoral activity, occupation or size of the enterprise, the weighted average of these rates for the respective country is estimated. This is then compared to the median and mean wages of those paid employees who are covered by minimum wage legislation.[15]

The results of this analysis are shown in figure 3.5. In about half the countries the ratio of minimum wages to mean wages hovers at around 40 per cent (figure 3.5, panel A). This ratio is close to that observed in a number of advanced economies. Based on data available for 75 countries the ILO's *Global Wage Report* 2008/09 considered that "the levels of minimum wages relative to average [mean] wages vary widely across countries, but that there is a relatively high frequency at around 40 per cent of average wages" (ILO, 2008). In Costa Rica, Indonesia, Peru, the Philippines, South Africa and Turkey the ratio is higher.

Minimum wages as a proportion of median wages are relatively high in developing countries (figure 3.5, panel B). This could reflect the fact that, in most developing economies, a disproportionately high number of workers earn low wages. In

15. Both ratios are calculated for workers who are under the legal coverage and between the ages of 15 and 64.

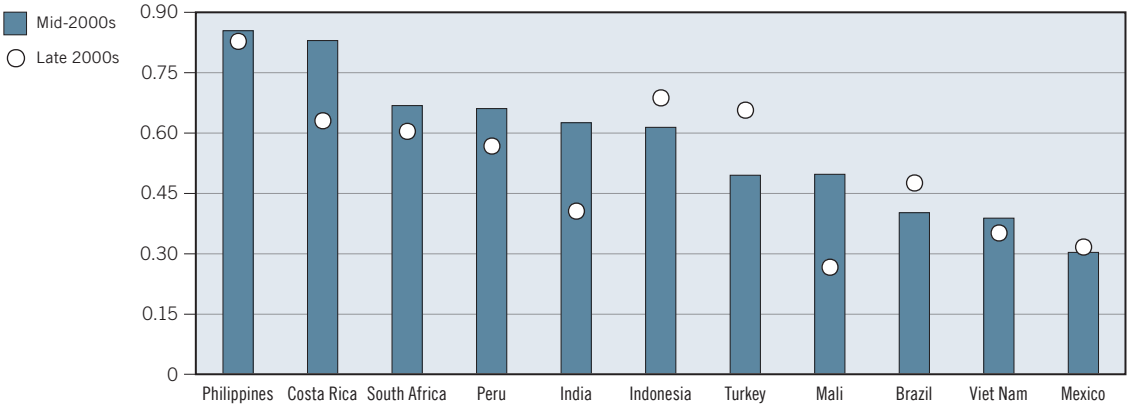
Figure 3.4 Minimum wages as a percentage of full-time median wages in selected advanced economies



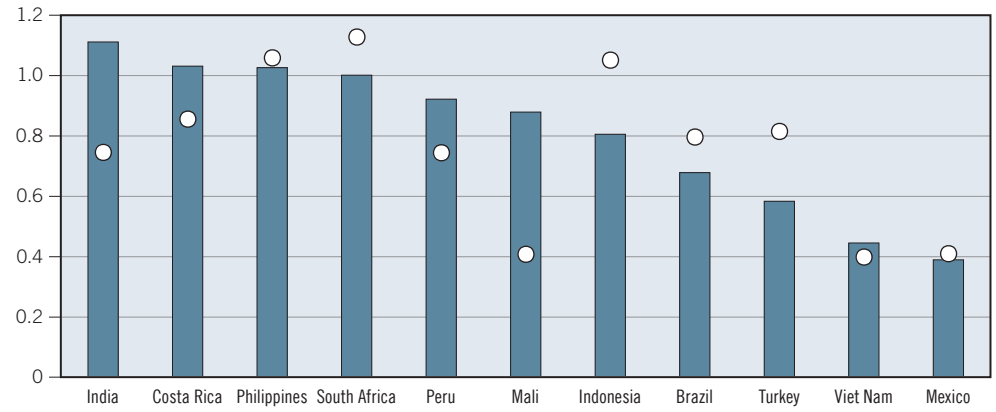
Source: The Low Pay Commission Report (2012).

Figure 3.5 Ratio of minimum wages to mean and median wages in selected developing economies

Panel A. Ratio of minimum wages to mean wages



Panel B. Ratio of minimum wages to median wages



Source: IILS estimates based on data from household and labour force surveys.

practice this would mean that rising minimum wages would affect more workers, with resulting impacts on poverty, inequality and demand. In Indonesia, the Philippines and South Africa, where the minimum wage is higher than the median wage, there may be problems of non-enforcement, an issue examined in the next section.

…and third, the ability to ensure compliance with legal minimum wage provisions.

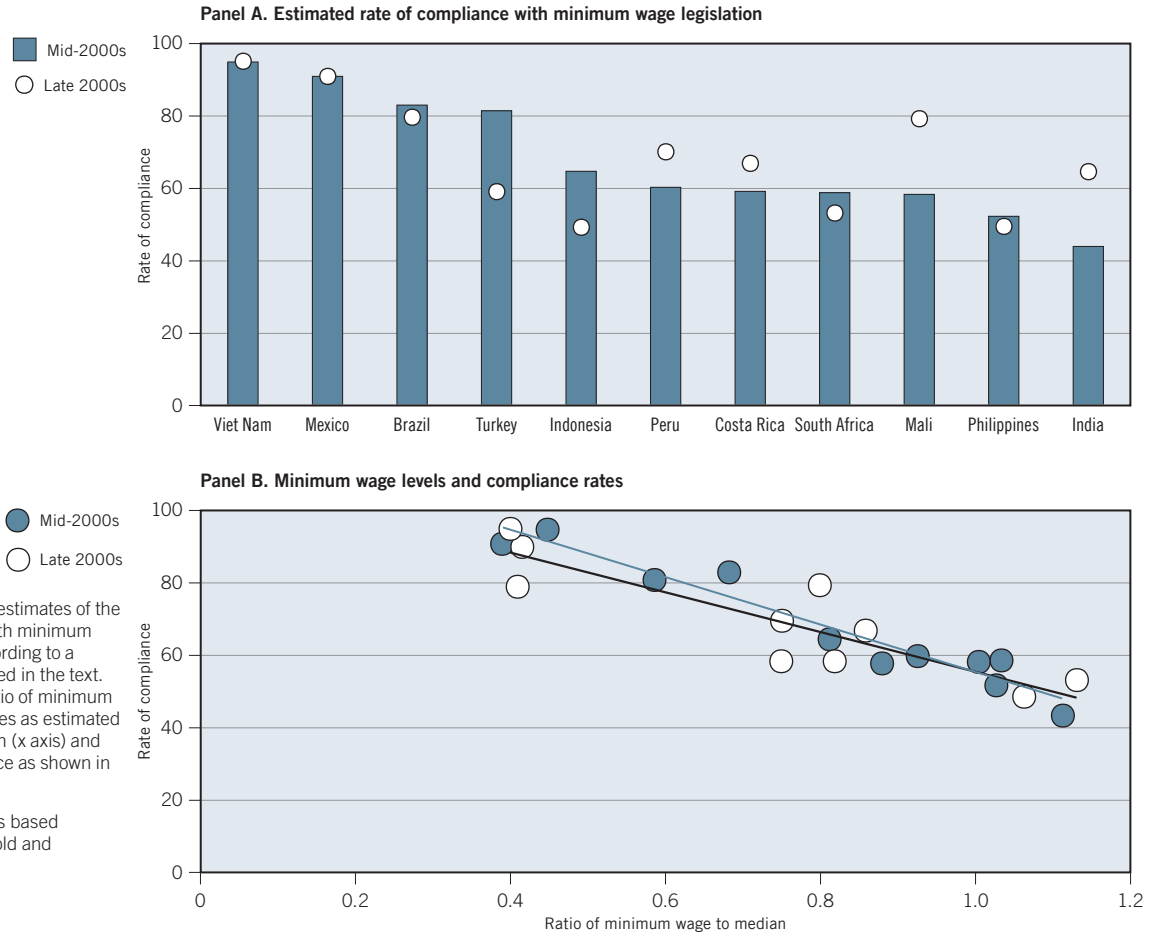
The effectiveness of minimum wage policy depends not only on the coverage and levels of minimum wages but also on the degree of compliance with legal provisions. The fact is that "simply legislating a minimum wage will not make it happen" (Murgai and Ravallion, 2005:2). In advanced economies, the proportion of workers paid less than the national minimum wages is often relatively low (Bureau of Labor Statistics 2009; Metcalf, 2008). Ensuring compliance in developing economies, as measured by the proportion of wage earners who receive minimum wages, is more problematic. For example, in Brazil, Lemos (2004) estimated that in 2000 the proportion of workers earning below the minimum wage was 13.7 per cent in the private sector and 4.6 per cent in the public sector. Even at this level of less than perfect compliance, a majority of low-paid wage workers would still benefit from minimum wages.

The degree of compliance depends, first, on the complexity of the system. A uniform system is typically simpler and easier to enforce than a system of multiple minimum wage rates. Clear information or guidelines available to employers and workers about the level of minimum wages, and about possible sanctions in case of non-respect, may also increase the likelihood of compliance. Second, if set at too high a level, there is a risk that minimum wages may increase evasion in certain sectors and occupations. Third, a high rate of compliance requires a coherent strategy based on provision of information, effective labour inspection and sanctions in the event of failure to comply with legal provisions. The regulatory structures in developing economies, including labour inspection services, are often under-resourced and under-staffed and penalties may be too weak to induce compliance (Ghosheh, 2013).

Compliance can be measured in a number of ways: first based on the complaints made by workers in a judicial system; second, based on workplace inspection by labour inspectors; and third, by calculating the share of workers' earning[16] less than the legal minimum wage (another statistical measure of compliance, presented in Appendix C, leads to similar results).[17] In the methodology developed for this chapter, the third measure is calculated reflecting the full complexity of minimum wages with each worker assigned a specific minimum wage.[18] The rate of compliance using this measure ranges between 95 per cent in Viet Nam to 49 per cent in Indonesia and the Philippines (figure 3.6, panel A). The compliance rate is relatively high in Brazil, Mali, Mexico and Viet Nam, while in all other countries the rate of compliance hovers around 60 per cent. The high level of compliance in Brazil could be due in part to the simple national minimum wage system, which makes it easy to implement and administer. This has not only ensured a higher level of compliance but has also resulted in improvements to the wage distribution as a considerable proportion of low-paid workers are covered by the minimum wage (Lemos, 2009).

16. The earnings of all wage earners are adjusted to the full-time equivalence wage, and this imputed wage is compared to the legal minimum wage.
17. In the case of multiple minimum wages, the legal minimum wage is the weighted average for the covered population.
18. Most studies, which analyse the employment effects or compliance actually ignore the complexity of minimum wages and often consider the lowest level of minimum wage for analysis. There are a few exceptions, such as Costa Rica (Gindling and Trejos, 2010; Gindling and Terrell, 2004) and South Africa (Bhorat et al., 2012), where the complexity of minimum wages was taken into consideration in the analysis.

Figure 3.6 Compliance and minimum wages in selected developing economies



Note: Panel A shows estimates of the rate of compliance with minimum wage legislation, according to a methodology presented in the text. Panel B shows the ratio of minimum wages to median wages as estimated in the previous section (x axis) and the rates of compliance as shown in panel A (y axis).

Source: IILS estimates based on data from household and labour force surveys.

The rate of compliance also depends on the level at which the minimum wages are set (Lee, 2012). A low level of minimum wages tends to be associated with a relatively high degree of compliance, as in Mali, Mexico and Viet Nam. Conversely, a higher level of minimum wages as observed in Costa Rica, India, Indonesia, Peru, the Philippines, South Africa and Turkey, tends to be associated with lower levels of compliance.[19] In Peru, the compliance rate was 60 per cent in 2005, when the minimum wage was set at 92 per cent of the median wage. In 2010, the ratio of minimum to median wages decreased and the rate of compliance increased more or less proportionately.

The association between minimum wage levels and compliance rates is presented in figure 3.6, panel B. Probit models confirm this association.[20] It is noteworthy that during the late 2000s, the relationship was weaker as the fitted line is flatter, implying that the wage level loses part of the impact on compliance.

This indicates that while non-compliance is associated with the level at which minimum wage is set, it is also linked to the general institutional environment. For example, although Costa Rica and India have complex minimum wage systems and the level of minimum wage is quite high, the two countries have successfully

19. The compliance rate estimated for Costa Rica and South Africa are similar to the results found in Gindling and Trejos (2010) and Bhorat et al. (2012) respectively.
20. The probit models are available on request from the authors.

improved compliance rates, largely due to the strengthening of enforcement mechanisms. The minimum wage level in Costa Rica is set relatively high but, despite that, it has been able to improve compliance, largely due to an increase in the number of labour inspectors, which helped to increase the proportion of firms that were regularly inspected, often with repeat visits. In case of repeated violations (more than two complaints) the cases are referred to the labour courts, which can impose fines (Gindling and Trejos, 2010). Further, in August 2010, a national campaign for Minimum Wages (Campaña Nacional de Salarios Mínimos) was launched with the aim of increasing compliance. Workers were encouraged to denounce employers who paid less than the minimum wage. The programme also included other measures, such as increasing the capacity of the call centre handling complaints, which resulted in 77,816 calls in the first year alone and an increase in joint inspections with the social security administration.

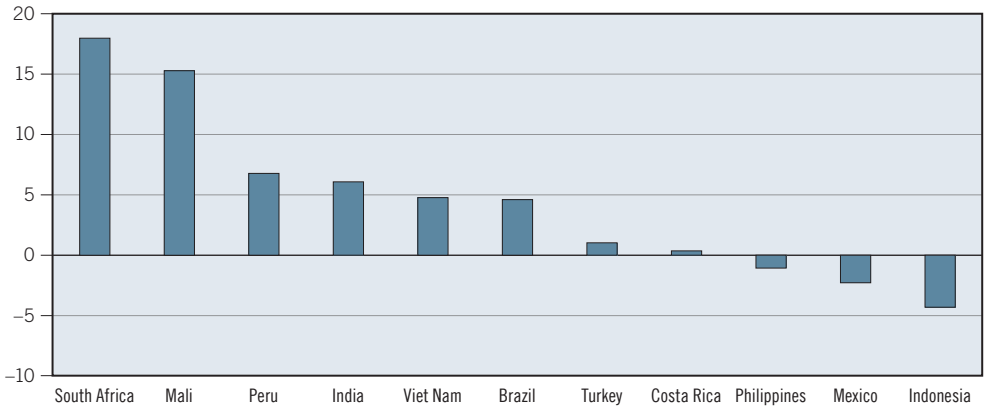
Some authors such as Murgai and Ravallion (2005) suggest that, to be effective in developing countries, minimum wage legislation should be supported by commitment from the Government to act as an "employer of the last resort". This would help to ensure jobs for all unskilled workers at the stipulated minimum wage rate. In this spirit, in India the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) provides all households in rural areas with 100 days of employment per year, paid at minimum wages. The Act also relies on a legislated Right to Information and Social Audits, which provides an opportunity for civil society to ensure that the implementation of the program is effective. This has not only provided a number of days of work at minimum wages to poor households but also improved the compliance rate with minimum wages in rural parts of India where the program operates (see Rani and Belser, 2012 for more details). A high proportion of female workers have benefitted from the program and the strategy has effectively redistributed resources to low-paid workers.

C. Concluding remarks on the aggregate distributional and employment effects of minimum wages

The analysis detailed above shows that, if minimum wages are set appropriately and operated effectively, then low paid wage earners will benefit. The transfer of resources to low-paid workers could contribute towards sustaining household consumption and overall aggregate demand and output, especially important at times of crisis.

The resilience of some Latin American economies to the crisis provides a case in point. The combination of comparatively well-designed minimum wage systems and rising minimum wage levels with effective social protection measures was an element in preventing these economies from falling into recession despite falling exports, as domestic demand sustained the growth process (de Melo et al., 2012; ECLAC, 2012). Likewise, through the expansion of the rural employment programme (MGNREGA), India managed to increase consumption (Ravi and Engler, 2013) while also stimulating productive investment in land and non-agricultural activities, thus boosting productive employment (Saraswat, 2011).

Figure 3.7 Annual percentage change in real earnings in the informal economy between the mid-2000s and the late-2000s



Source: IILS estimates based on data from household and labour force surveys.

Improved levels and/or effective compliance with minimum wage legislation went hand in hand with higher earnings in the informal economy…

The increase in aggregate demand could also arise from the spillover effects[21] of minimum wages in the informal economy.[22] Average earnings in the informal economy increased in most of the countries under analysis, by between 0.33 per cent and 18 per cent per year depending upon the country (figure 3.7). Average real earnings in the informal economy increased significantly in those countries, which experienced the greatest improvements in levels of compliance (India and Peru). This could reflect either spillover effects from minimum wages or improved macro-economic conditions (although the period covered includes years of the financial crisis). However, in some of the countries such as Indonesia, Mexico and the Philippines the informal wage earnings declined.

…and reductions in wage inequality in some countries…

There is some evidence that higher minimum wage levels and/or improved compliance have tended to boost the relative position of low-paid earners. Despite less than perfect compliance, the analysis suggests that minimum wages have been accompanied by reductions in inequality at the bottom end of the distribution, especially in India, Mali, the Philippines, South Africa, Turkey and Viet Nam (table 3.1). In Brazil and Peru, improved minimum wages appear to have resulted in an expansion of the middle part of the wage distribution, thus fuelling the expansion of middle-income groups, which is documented in Chapter 2.

21. This has been interpreted as evidence of the signalling (lighthouse) effect which actually hypothesizes that the minimum wage is a signal for wage bargaining and therefore plays a role as a coordinator of the wage policy (Lemos, 2009).
22. The spillover effect of minimum wages on informal wage earnings and non-wage incomes has been well documented in a number of Latin American countries. See Fajnzylber, 2001; Carneiro and Henley, 2001; Lemos, 2009 for Brazil; Gindling and Terrell, 2004 for Costa Rica; and Maloney and Núñez, 2001 for Colombia.

Table 3.1 Wage inequality indices, change in inequality between mid-2000s and late 2000s

Countries	P50/P10	P90/P50	P75/P25	Gini
Brazil	0.15	–0.37	–0.48	–0.02
Costa Rica	0.34	0.46	0.11	0.03
India	–0.13	0.25	–0.07	–0.01
Indonesia	0.15	0.76	0.34	0.06
Mali	–2.37	1.00	–2.83	0.10
Mexico	0.34	–0.22	–0.07	–0.02
Peru	0.11	–0.29	–0.66	–0.04
Philippines	–0.13	0.21	0.00	0.03
South Africa	–0.45	–0.90	–0.70	0.00
Turkey	–0.22	0.48	0.02	0.01
Viet Nam	–1.71	–0.53	–1.23	–0.15

Source: IILS estimates based on data from labour force and household surveys.

...without hurting overall employment levels.

There is also some evidence that changes in minimum wage policies, while achieving distributional goals, have not come at the cost of employment. Indeed, the aggregate effects arising from improved minimum wages may have outweighed any negative substitution and labour demand effects at the level of individual firms.

The effects of minimum wages on employment are examined empirically in Appendix D. It is found that, for the majority of the countries analysed, the employment effects are statistically insignificant (see Appendix D, table 3D.1). The impacts on employment are in line with the previous empirical results, which show statistically insignificant or small adverse or positive effects of minimum wages on employment (Lemos, 2004, 2009 for Brazil; Chun and Khor, 2010; Comola and de Mello, 2009 for Indonesia; Ni, et al., 2011 for China).

In general, the fact that the size of the distributional and employment effects differs across countries highlights the importance of (i) the design features of minimum wage systems; and (ii) complementarity with other policies, notably social protection and, as will be seen in Chapter 4, productive investment.

Appendix A

Sources for the data on coverage of minimum wages

Country	Data source	Years
Brazil	Pesquisa Nacional por Amostra de Domicílios (PNAD), IBGE	2005 and 2009
Costa Rica	Encuesta de Hogares de Propósitos Múltiples, INEC for 2005; Encuesta Nacional de Hogares (ENAHO), INEC for 2010	2005 and 2011
India	Employment–Unemployment Survey, NSSO, Government of India	2004–05 and 2009–10
Indonesia	National Labour Force Survey (Survei Angkatan Kerja Nasional) (SAKERNAS), BPS-Statistics	2005 and 2009
Mali	Enquête Permanente Emploi Auprès des Ménages (EPAM)	2004 and 2010
Mexico	Encuesta Nacional de Ocupación Y Empleo (ENOE), INEGI	2005 and 2010
Peru	Encuesta Nacional de Hogares, INEI	2005 and 2010
Philippines	Labour Force Survey, National Statistics Office	2003 and 2009
South Africa	Labour Force Survey, Statistics South Africa for 2007, Labour Market Dynamics (LMD) Survey for 2011	2007 and 2011
Turkey	Household Labour Force Survey, Turkish Statistical Institute	2005 and 2011
Viet Nam	Labour and Employment Survey, General Statistics Office, Ministry of Planning and Investment	2007 and 2011

Appendix B

Detailed information on minimum wage systems in selected developing countries

Legal coverage and compliance

Coverage of wage workers by minimum wage legislation

Brazil. The legal minimum wages in Brazil are set both at the national and at the state level. The national minimum wage is applicable to all workers in the private sector, explicitly including rural workers and domestic workers. Although, the legislation does not apply to the public sector, the law on public servants provides that no public servant shall receive a remuneration lower than the minimum wage.

Brazil has also had wage floors at the federal level since 2000. Two states, namely Rio de Janeiro and Rio Grande do Sul, adopted wage floor legislation with effect from 2000 and 2001, respectively, followed by Paraná in 2006, São Paulo in 2007 and Santa Catarina in 2010. The wage floors at the federal level are set at the occupational or sectoral level and there are significant variations in the number of occupations included at each federal level. The number of occupations or sectors included in the schedule also varies over time in any given federal state. For example, Rio de Janeiro had minimum wages for nine different occupational categories in June 2009, compared to six in January 2005. The definitions of each of the occupational categories, which were made available in the wage floor legislation, were matched with the Classificação Brasileira de Ocupação of Brazil at the four-digit level to identify the workers.

Costa Rica. The structure of legal minimum wages in Costa Rica is quite complex, as the legal minimum wages are set for three broad categories of workers, covering all workers in the economy. The first category of minimum wages is set for non-professional workers, the second category for "*genericos*" (largely professional) categories of workers and the third category for "special" minimum wages. Four different minimum wages are set for non-professional workers: unskilled workers, semi-skilled workers, skilled workers and specialized workers. The definition of skill is determined by the occupation and industry of the worker in regulations promulgated by the Ministry of Labor. Minimum wages are set for "*genericos*" (largely professional) workers in the following categories: unskilled workers, semi-skilled workers, skilled workers, technicians with a secondary degree, specialized workers, technical workers with a tertiary education, "*diplomados*" with a university degree, a 4-year university "*bachiller*" degree, and those with a 5-year university "*licenciado*" degree. Special minimum wages are set for coffee harvesters, domestic servants, reporters, stevedores, doormen, taxi drivers, beer salesmen and newspaper delivery personnel. The definitions of each occupational group, which were made available in the wage decrees, were matched with the Clasificación de Ocupaciones de Costa Rica 2000 at the four-digit level to identify the workers.

India. The minimum wage system in India is fairly complex as minimum wages are set for certain "schedules of employment" in each state and, as a result, not all

workers are covered by minimum wages. In India, 48 minimum wages rates are set for different job categories in agriculture, mining, oil extraction or any corporation under the ownership of the Central Government, while the various State governments determine wage rates for 1,123 job categories among sectors "scheduled" (or listed) in the Act. Legal minimum wages are set in each state by occupation or industry group, by type of establishment – public or private sector – and by size of the enterprise. There are significant variations across states in the number of occupations or industry groups for which minimum wages are set. The definitions of each of the occupation and industry groups, which were made available in the schedule of employment, were matched with the National Classification of Occupations (NCO), 1968 for 2004–05 survey data; NCO, 2004 for 2009–10 for the occupational groups; National Industrial Classification (NIC), 1998 for 2004–05 and NIC, 2004 for 2009–10 for the industry groups.

Indonesia. The minimum wage in Indonesia is set at the provincial level and it is applicable to all workers, including piece-rate and freelance workers, except for domestic workers. Minimum wages in Indonesia are also set at the district and sub-district levels, and within provinces and districts there are also sectoral minimum wages, where the minimum wages are supposed to be at least 5 per cent higher than the respective province or district minimum wage. The sectoral categories, which were made available in the sectoral minimum wages provisions, were matched with the International Statistical Industrial Classification (ISIC) Rev.4 at the five-digit level to identify the workers.

Mali. The minimum wage in Mali is set at the national level and covers all workers. Minimum wages are set separately for domestic workers, who are classified within seven categories, based on the services performed. These seven categories are: category 1 – workers without a specific professional qualification who provide cleaning or surveillance services; category 2 – domestic work with up to 2 years of experience in cooking and gardening; category 3 – workers in charge of executing domestic work with more than 2 years of experience in cooking; category 4 – workers performing domestic work including regular cooking, in which they hold a qualification, as well as being able to compile menus and prepare dessert; category 5 – qualified chefs who comply with the definition of category 4, who are also in charge of domestic work; category 6 – chefs with other people under their authority and direction; and category 7 – butlers.

Mexico. The Minimum Wage Commission sets the minimum wages for workers in certain occupations and different minimum wages are set for the three geographical regions. In 2005, the minimum wage was set for 87 occupations and for the three geographical regions; and, by 2010, the number of occupations for which the minimum wage was set was reduced to 73 occupations. The occupation categories defined in the Minimum Wage Commission were matched with the Mexican Classification of Occupations (CMO) at the four-digit level to identify the workers.

Peru. The minimum wage is set at the national level and it covers all workers with the exception of domestic workers. The legal minimum wages are set broadly for six categories: the first category is the general minimum wage, which applies to all workers who are not specified in the other five categories; the second category is for the agricultural sector; the third category is for mining sector; the fourth category

for journalists; the fifth category for unemployed between 45 and 65 years of age who are participating in a refreshing activity to facilitate their reinsertion into the labour market; and the sixth category is for apprenticeship, which has two sub-categories – one, mandatory internship in the context of their secondary education, and, two, internships related to vocational training. The minimum wages for the second to the sixth categories are computed based on the general minimum wage. For example, the minimum wage for workers in the mining sector is 25 per cent higher than the general minimum wage, while the salary of registered journalists is three times higher than the general minimum wages. For the analysis, we did not consider the last two categories (that is the fifth and sixth categories) as it was difficult to identify such workers in the survey. The industrial classification, which was made available in the minimum wage provisions was matched with the ISIC Rev.4 at the four-digit level to identify the workers.

Philippines. The system of minimum wages in the Philippines is relatively complex, as there are multiple minimum wages, which differ across regions and industry groups. A number of exemptions are also granted to small enterprises, making the system still more complex. All private-sector workers are covered by minimum wages, and the law provides that no public-sector worker shall receive a remuneration lower than the minimum wage. The Philippines is divided into 16 administrative units or regions and, depending on the region, the minimum wages are classified within different industry groups or sectors. For example, in the National Capital Region, the minimum wages are set for five categories: non-agriculture; agriculture (plantation and non-plantation); private hospital with bed capacity of 100 or less; retail/service establishments employing 15 workers or less; and manufacturing establishments regularly employing fewer than ten workers. Almost all the regions adopt these categories with some variations; for example, Region VI does not have the category of "manufacturing establishments" but includes cottage and handicraft and the sugar industry. The industrial categories specified in the wage orders were matched with the 1994 Philippine Standard Classification at the two-digit level in 2003 and four-digit level in 2009 to identify the workers.

South Africa. The minimum wages in South Africa are sectorally determined for the following eleven sectors: wholesale and retail trade; domestic work; forestry; farms; private security; taxis; civil engineering; hospitality; contract cleaning services; learnership and children in the performance of advertising, artistic and cultural activities. The first sectoral determination, for contract cleaning, was introduced in 1999, and the last one, for hospitality, was introduced in 2007. Depending on the sector, the minimum wages are set according to the area, occupations, size of the enterprise and hours of work performed per week. It was very difficult to identify workers within the learnership and children in the performance of advertising, artistic and cultural activities sector in the occupation category in the labour force survey, so they are not considered for analysis.

For some of the sectors, such as private security, civil engineering and the wholesale and retail sectors, the minimum wages were set for a number of subcategories. Private security was divided into the following classifications: artisan, clerical assistant, clerk, control of communications centre operator, stock controller, driver of light and heavy motor vehicles, general worker, handyman, and security officer was further sub-divided into five grades from A to E. Similarly, in the case of civil engineering, the minimum wage structure became quite complex in 2007 as the workers were divided within nine task grades and each of the task

grades further divided into sub-categories. Task grade 1 includes general worker; task grade 2 includes artisan aid, construction hand (grade 4), operator (grade 5), checker and chainman; task grade 3 includes construction hand (grade 3), operator (grade 4) and site support (junior clerk); task grade 4 includes construction hand (grade 2), operator (grade 3), driver (grade 2) and site support (material tester); task grade 5 includes construction hand (grade 1), operator (grade 2), driver (grade 1), and site support (assistant surveyor); task grade 6 includes operator (grade 1); task grade 7 includes supervisor (grade 2); task grade 8 includes supervisor (grade 1) and task grade 9 includes artisan. The definitions of each of the sub-categories, which were made available in the sectoral wage determinations, were matched with the National Classification of Occupations of South Africa at the four-digit level to identify the workers.

Turkey. The Labour Law, Article 39 stipulates that minimum wage rates will be determined at least every 2 years by the Minimum Wage Fixing Committee for all workers employed on labour contracts, regardless of whether they come within the scope of the Labour Act. A nationwide monthly minimum wage rate is set for all adult workers, regardless of sector or occupation, and a lower monthly minimum wage is set for workers below 16 years of age. In Turkey, the household labour force survey (HLFS) does not investigate whether a worker is on a labour contract or not. So, for the purposes of this analysis we have taken into consideration whether or not the worker has a social security contract. All those employees who do not have a social security contract were excluded from the analysis.

Viet Nam. The minimum wages are set for two broad categories of workers and set separately for different regions. The first category includes workers employed by foreign-invested enterprises, foreign agencies and organizations, international organizations or foreigners in Viet Nam; and the second category includes workers employed by Vietnamese companies, enterprises, cooperatives, cooperative groups, farms, households and individuals and other organizations employing labourers. In 2007, the minimum wages were applicable to all workers within category 1 in all three regions, while, in category 2, minimum wages were applicable only to workers employed in large cities. As a result, a number of workers employed in smaller cities and in rural areas were actually excluded from the provisions of the minimum wage legislation. However, in 2011 minimum wage cover was expanded to all workers in all regions in both categories.

Assigning minimum wages to workers covered by the minimum wage legislation

To assign a legal minimum wage to each worker in the data, we took the official minimum wages from the wage orders or sectoral wage determinations or the official decrees of the respective country. Every worker in the data set was assigned a legal minimum wage if the occupation or sector or industry in which the worker was employed had been legally covered by the official decree of the respective country. In the case of multiple minimum wages in a country, the minimum wage legislation provided information at the different levels. The assignment of a legal minimum wage to a worker was then based on a comparison of the occupational classification used in the household or labour force survey, and the categories in the minimum wage regulations. In most cases, it was not difficult to match the

categories with the surveys and minimum wage legislations, as detailed information was available.

However, there were cases where a match was difficult due to the lack of information in the survey. For example, in the Philippines, the minimum wage provisions provide exemptions for workers and employees in retail/service establishments that regularly employ not more than ten workers, and exempt workers in micro business enterprises, defined by a limit on total assets, from compliance with the Wage Rationalization Act. Information on firm and asset size was not available in the labour force survey, so it was difficult to exempt these workers from the coverage. In such cases we have considered all workers within the scope without exempting those working in smaller or micro-enterprises.

For example, in Costa Rica, to assign a legal minimum wage to each worker in the data, we took the legal minimum wages available in the official decrees. As Costa Rica has a complex minimum wage system, categorized by occupations and skills, every worker in the data set was assigned a legal minimum wage based on occupation, skill level and education level. To assign the legal minimum wage to a worker required comparison of the skill, education and occupation classifications used in the household surveys with the detailed skill, occupation and industry categories in the minimum wage regulations. Although both the household surveys and the minimum wage legislations provided detailed definition of the categories, there were some slight discrepancies in certain definitions. Based on this comparison, we then assigned a legal minimum wage to each worker.

Although in all the countries we have taken great care in matching the definitions of categories between household and labour force surveys and the minimum wage regulations, it is plausible that we have made some errors in the process.

Level of minimum wage rates

As an illustration, we provide below the level of minimum wage rates that are applied in Viet Nam for 2011. The scope of the region, which was used for analysis is listed in Decree No. 107/2010/ND-CP and No. 108/2010/ND-CP for 2011.

Table 3B.1 Level of minimum wage rates per month (VND) in Viet Nam, 2011

	Minimum wage applicable to Vietnamese labourers working for foreign-invested enterprises, foreign agencies and organizations, international organizations or foreigners in Viet Nam	Minimum wage applicable to labourers working for Vietnamese companies, enterprises, cooperatives, cooperative groups, farms, households and individuals and other organizations employing labourers
Region I	1,550,000	1,350,000
Region II	1,350,000	1,200,000
Region III	1,170,000	1,050,000
Region IV	1,100,000	830,000

Appendix C

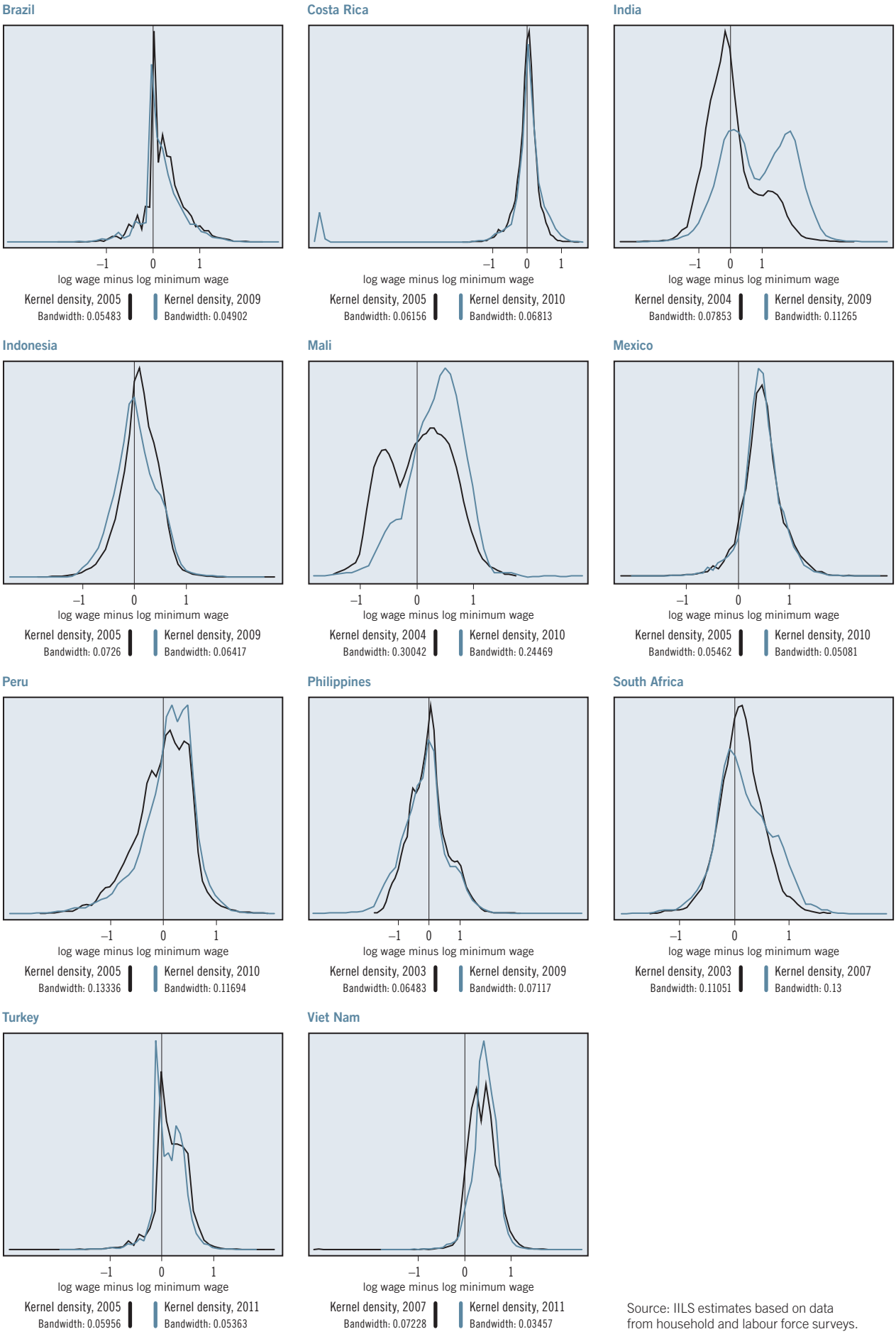
Distribution of wages around minimum wages

There are a number of approaches to estimate the impact of legal minimum wage on wage distributions using kernel density estimates. A simple method would be to look for spikes in the wage distribution at or around the minimum wages to infer level of compliance with the legislation and whether or not there is an impact. As a number of countries under analysis have multiple legal minimum wages, the kernel density estimates are simply calculated as log actual wage minus log minimum wage for each worker[23] and plotted in figure 3C.1 for the two periods under analysis. This method also allows the ways in which the complex structure of minimum wages can affect the wage distribution to be examined. The line "zero" in the figure indicates that the worker is earning the legal minimum wage, and the value above (below) zero implies that workers earn above (below) the legal minimum wage.

The evidence of spikes in the earnings distribution at the minimum wage level is quite mixed in developing countries. There is a significant spike at the minimum wage level in Brazil, Costa Rica, Indonesia, the Philippines and South Africa, but there is no evidence of a spike in Mali, Mexico, Peru, or Viet Nam. The steep cliffs around the minimum wage level highlight the role of minimum wages in shaping the distribution. When comparing the distribution over time, the spikes in the distribution near zero in the case of Brazil and Costa Rica, indicate that minimum wages have become much more binding in the second year compared to the first. The proportion of workers earning the minimum wage[24] increased from 18 to 23 per cent in Brazil, and from 18 to 24 per cent in Costa Rica. Thanks to the improved enforcement mechanism in Costa Rica, minimum wages have become more binding. In Brazil there is a strong compression effect towards the middle of the distribution, which indicates the expansion of the middle class during the late 2000s (Chapter 2). In countries such as India and Turkey, minimum wages have become less binding in the late 2000s, and the proportion of workers at the minimum wage level has declined by more than 4 percentage points.

23. This method is used by other studies; see Gindling and Terrell (2004).
24. The term "workers earning the minimum wage" includes workers who receive wages between 90 and 110 per cent of the minimum wage.

Figure 3C.1 Comparing the distribution of wages and legal minimum wages, all wage earners



Source: IILS estimates based on data from household and labour force surveys.

Appendix D

Methodology to analyse the impact of minimum wages on employment

Section C of this chapter analysed the employment effect due to an increase in minimum wages or an expansion of minimum wage legislation. One of the questions is whether employers would respond to the enforcement of such legislation by reducing their workforce. From the policy point of view, the issue can be tested by analysing the effect of change in minimum wage level or other minimum wage indicators on employment and by analysing the movement of labour force from covered to uncovered sectors. The analysis is restricted to examining the impact of minimum wages on employment, and not the transitions from covered to uncovered sectors.

As it is difficult to obtain panel data in developing countries, the analysis is done at the aggregate level to capture the policy effect of the rise in minimum wages, using the pseudo panel concept.

To build the pseudo panel, we considered the smallest geographical units, where applicable, that were defined in the surveys as cohorts over two available time periods – in the mid-2000s and late 2000s. To control for regional effect, the panel regression with fixed effects was run over this aggregated set. The model was estimated in the following form:

$$EMP_{ct} = \alpha_0 + \alpha_1 \log(MW_{ct}) + \alpha_2(LowEdu_{ct}) + \varepsilon_{ct} \quad (1)$$

where $(EMP)_{ct}$ represents the employment rate, that is the ratio of employment over the population in a particular geographic cohort, c, at time, t, and MW_{ct} is the minimum wage indicator of the cohort, which is the average weighted minimum wages of the cohort. To control for the personal characteristic of the cohort we included *LowEdu*, which represents the percentage of population in each cohort with primary education and below. This variable was considered as there was sufficient variation across the geographical regions.

The two main challenges in analysing the employment effect of minimum wages are the availability of the appropriate geographical units in the survey and the endogeneity of the minimum wage indicator in the main regression. For the former, we have considered for analysis only those countries which have appropriate geographical units[25] and, to ensure the orthogonality of $\log(MW_{ct})$ with the error term in this model, we have applied the two-stage least square (2SLS) procedure. It is first instrumented (regressed) log of minimum wage of each cohort on the average wage level and the degree of compliance with minimum wage legislation, and the resulting predicted values are used to estimate equation (1). For the estimation of instrumental regression, the following model was used:

$$\log(MW_{ct}) = \beta_0 + \beta_1(DC_{ct}) + \omega_{ct} \quad (2)$$

where DC_{ct} is the degree of compliance within the cohort; and ω_{ct} represents the error term. Table 3D.1 presents the final results of the analysis, which is consistent

25. Only Costa Rica is an exception, and the analysis for this country was carried out for one time period for which district-level information was available. The geographical variation in this year in this country was sufficient to allow the analysis to be carried out using OLS.

Table 3D.1 Impact of minimum wages on employment (Instrumental Variable (IV) regression)

	Dependent variable: Employment rate					
	Brazil	Costa Rica	India	Mexico	Peru	Viet Nam
Log (MW)	1.720 (2.02)	1.983 (1.14)	–0.620 (0.58)	–1.385* (0.55)	1.384* (0.64)	–0.144 (0.153)
LowEdu	5.048 (4.27)	–14.66*** (2.76)	33.25** (10.61)	–2.449 (2.21)	12.35*** (3.25)	10.54*** (2.79)
Constant	56.18*** (10.85)	48.54*** (10.14)	43.20*** (7.39)	61.15*** (1.87)	70.61*** (2.78)	78.76*** (0.86)
R^2	0.011	0.158	0.076	0.007	0.261	0.031
No. of observations	54	359	140	1971	1687	125

Note: Standard errors are in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: IILS estimates based on data from household and labour force surveys.

Table 3D.2 Time period and variables for analysing employment effects

Country	Properties of the model
Brazil	Years of study: 2005 and 2009; Unit of measurement: federal units, 27 units were available for each year; Method: panel regression with fixed effect
Costa Rica	Year of study: 2010; Unit of measurement: only the 2010 survey encompassing 359 districts as a geographical unit; Method: OLS (considering the geographical variation)
India	Years of study: 2004–05 and 2009–10; Unit of measurement: districts, 70 districts were available for each year; Method: panel regression with fixed effect
Mexico	Years of study: 2005 and 2010; Unit of measurement: municipalities, 1,070 municipalities in 2005 and 1,068 municipalities in 2010 were available for the respective years; Method: panel regression with fixed effect
Peru	Years of study: 2005 and 2010; Unit of measurement: ubicación geográfica, 877 in 2005 and 974 in 2010 were available for the respective years; Method: panel regression with fixed effect
Viet Nam	Years of study: 2007 and 2011; Unit of measurement: province, 64 province in 2007 and 65 province in 2011 were available for the respective years; Method: panel regression with fixed effect

with a large body of the literature that argues that the employment effect of minimum wages is either insignificant or has values around zero.

The analysis has been carried out for the age group 15 to 64 years. The models were estimated using a fixed effect on the aggregate data at different geographical levels. The details of the geographical units, time periods and variables considered for each country are presented in table 3D.2. Some of the macro variables at the regional level were considered for the analysis. However, due to the lack of regional variations in these macro variables they could not fit into the model. To partially address the omitted variable bias, we assumed that the panel structure and use of fixed effect model would help in taking into consideration the district-specific macro variables.

References

Alaniz, E.; Gindling, T.H.; Terrell, K. 2011. "The impact of minimum wages on wages, work and poverty in Nicaragua", in *Labour Economics*, Vol. 18, Supplement 1, pp. S54-S59.

Arango, C.A.; Pachón, A. 2004. *Minimum wages in Colombia: Holding the middle with a bite on the poor*. (Bogota, Central Bank of Colombia), unpublished.

Autor, D.H.; Manning, A.; Smith, C.L. 2010. *The contribution of the minimum wage to U.S. wage inequality over three decades:* A *reassessment*, NBER Working Paper No. 16533 (Cambridge MA, National Bureau of Economic Research).

Belser, P.; Sobeck, K. 2012. "At what level should countries set their minimum wages?" in *International Journal of Labour Research*, Vol. 4, No. 1, pp. 105-27.

Bhorat, H.; Kanbur, R.; Mayet, A. 2012. "Minimum wage violation in South Africa: Low-paid work in emerging economies", in *International Labour Review*, Vol. 151, No. 3; pp. 277-287.

Boockmann, B. 2010. *The combined employment effects of minimum wages and labour market regulation:* A *meta-analysis*, IZA Discussion Paper No. 4983 (Bonn, IZA).

Bureau of Labor Statistics. 2009. *Characteristics of minimum wage workers: 2008*. (Washington, DC, United States Department of Labor).

Butcher, T.; Dickens, R.; Manning, A. 2012. *Minimum wages and wage inequality: Some theory and an application to the UK*, CEP Discussion Paper No. 1177 (London, The London School of Economics and Political Science).

Carneiro, F.G.; Henley, A. 2001. *Modelling formal versus informal employment and earnings: Micro econometric evidence for Brazil*, Working Paper No. 2001-15 (Aberystwyth, School of Management and Business, Aberystwyth University).

Chipman, K. 2006. "Higher minimum wage no longer seen as sure-fire U.S. job killer", in *Bloomberg.com* (News). Available at: http://www.bloomberg.com/apps/news?pid=20601070&sid=atp2MiOAZ3Xc&refer=home# [11 Apr. 2013]

Chun, N.; Khor, N. 2010. *Minimum wages and changing wage inequality in Indonesia*, ADB Economics Working Paper series No. 196 (Manila, Asian Development Bank).

Comola, M. ; de Mello, L. 2009. *How does decentralised minimum-wage setting affect unemployment and informality? The case of Indonesia*, OECD Economics Department Working Paper No. 710 (Paris, OECD).

Cunningham, W.V. 2007. *Minimum wages and social policy: Lessons from developing countries*. (Washington, DC, World Bank).

de Melo, F.L.B.; Figueiredo, A.; Mineiro, A.S.; Mendoca, S.EA. 2012. "Rescuing the minimum wage as a tool for development in Brazil", in *International Journal of Labour Research*, Vol. 4, No. 1, pp. 27-44.

Dickens, R.; Manning, A. 2004. "Has the national minimum wage reduced UK wage inequality?", in *Journal of the Royal Statistical Society*, Series A (Statistics in Society), Vol. 167, No. 4, pp. 613–626.

Dolton, P.; Rosazza-Bondibene, C.; Wadsworth, J. 2010. *Employment, inequality and the UK national minimum wage over the medium-term*, IZA Discussion Paper Series No. 5278 (Bonn, IZA).

Doucouliagos, H.; Stanley, T.D. 2009. "Publication selection bias in minimum-wage research? A meta-regression analysis" in *British Journal of Industrial Relations*, Vol. 47, No. 2, pp. 406-428.

Economic Commission for Latin America and the Caribbean (ECLAC). 2012. "Preliminary overview of the economies of Latin America and the Caribbean" (Santiago, Chile, ECLAC), United Nations).

Fajnzylber, P. 2001. "Minimum wage effects throughout the wage distribution: Evidence from Brazil's formal and informal sectors", paper provided by ANPEC – Associação Nacional dos Centros de Pósgraduação em Economia [Brazilian Association of Graduate Programs in Economics] in its series Anais do XXIX Encontro Nacional de Economia [Proceedings of the 29th Brazilian Economics Meeting] No. 98 (Ingá Niterói, RJ, ANPEC).

Ghosheh, N. 2013. *Wage protection legislation in Africa*, Conditions of Work and Employment Series No. 38 (Geneva; ILO).

Gindling, T.H.; Terrell, K. 2004. *Legal minimum wages and the wages of formal and informal sector workers in Costa Rica*, IZA Discussion Paper No. 1018 (Bonn, IZA).
—;—. 2010. "Minimum wages, globalization and poverty in Honduras" in *World Development*, Vol. 38, No. 6, pp. 908-918.
—;Trejos, J.D. (2010) *Improving compliance with legal minimum wages in Costa Rica*, Working Paper No. 127, Department of Economics (Baltimore, MD, University of Maryland.
Hein, E.; Mundt, M. 2012. *Financialization and the requirements and potentials for wage-led recovery – a review focusing on the G20*, Conditions of Work and Employment Series No. 37, Conditions of Work and Employment Branch (Geneva, ILO).
Herr, H.; Kazandziska, M. Mahnkopf-Praprotnik, S. 2009. *The theoretical debate about minimum wages*, Global University Working Papers, Paper No. 6 (Kassel and Berlin, Global Labour University).
International Labour Office (ILO). 2011. *World of Work Report 2011: Making markets work for jobs* (Geneva).
—. 2012. *Global Wage Report 2012/13: Wages and equitable growth.* (Geneva).
—. 2010. *Global Wage Report 2010/11: Wage policies in times of crisis.* (Geneva).
—. 2008. *Global Wage Report 2008/09: Minimum wages and collective bargaining. Towards policy coherence.* (Geneva).
—. 1967. Report of the meeting of experts on minimum wage fixing and related problems, with special reference to developing countries, presented at the 170th session of the Governing Body of November 1967, Geneva
—. Various years. *Working Conditions Report*.
Lee, D.S. 1999. "Wage inequality in the United States during the 1980s: Rising dispersion or falling minimum wage?" in *The Quarterly Journal of Economics*, Vol. 114, No. 3, pp. 977–1023.
Lavoie, M. 2009. *The perverse effects of declining wages*, Presentation to the International Labour Conference, ILO Geneva, June 2009. Available at: http://www.ilo.org/public/libdoc/ILC2009/TD6/Lavoie%20TD6.pdf [11 Apr. 2013].
Lee, S. 2012. ""Varieties of minimum wage system" through the dubious lens of indicator-based country rankings", in *International Labour Review*, Vol. 151, No.3, pp. 261-275.
Lemos, S. 2009. "Minimum wage effects in a developing country" in *Labour Economics,* Vol. 16. No. 2, pp. 224-237.
—. 2007. "Minimum wage effects across the private and public sectors in Brazil", in *Journal of Development Studies*, Vol. 43, No. 4, pp. 700-720.
—. 2004. "The effect of the minimum wage on prices", IZA Discussion Paper No. 1072 (Bonn, IZA).
Maloney, W.F.; Nuñez, J. 2001. *Measuring the impact of minimum wages: Evidence from Latin America*, Policy Research Working Paper No. 2597 (Washington DC, The World Bank).
Metcalf, D. 2008. "Why has the British national minimum wage had little or no impact on employment?", in *Journal of Industrial Relations*, Vol. 50, No. 3, pp. 489-512.
Murgai, R.; Ravallion, M. 2005. "Employment guarantee in rural India: What would it cost and how much would it reduce poverty?", in *Economic and Political Weekly*, Vol. 40, No. 31, pp. 3450-3455.
Ni, J.; Wang, G.; Yao, X. 2011. "Impact of minimum wages on employment" in *The Chinese Economy*, Vol. 44, No.1, pp.18.38.
Neumark, D.; Wascher, W.L. 2008. *Minimum wages* (Cambridge, MA, MIT Press).
Rama, M. 2001. "The consequences of doubling the minimum wage: The case of Indonesia", in *Industrial and Labor Relations Review*, Vol. 54, No, 4, pp. 864-881.
Rani U.; Belser, P. 2012. "The effectiveness of minimum wages in developing countries: The case of India", in *International Journal of Labour Research*, Vol. 4, No. 1, pp. 45-66.
Ravi, S.; Engler, M. 2013. "Workfare as an effective way to fight poverty?: The case of India's NREGS", Available at: http://ssrn.com/abstract=1336837 [10 Apr. 2013].
Sankaran, S. R. 1997. "Minimum Wage Legislation", in *The Indian Journal of Labour Economics,* Vol. 40, No. 4, pp. 705-13.

Saraswat, D. 2011. *Effect of employment guarantee on access to credit: Evidence from rural India*, Munich Personal RePEc Archive (MPRA) Paper No. 34671 (Munich, Munich University Library).

Starr, G.F. 1981. "Minimum wage fixing: International experience with alternative roles" in *International Labour Review*, Vol. 120, No. 5, pp. 545-562.

Stockhammer, E. 2012. "Why have wage shares fallen? A panel analysis of the determinants of functional income distribution", Conditions of Work and Employment Series No. 35, Conditions of Work and Employment Branch (Geneva, ILO).

—.; Onaran, Ö.; Ederer, S. 2007. *Functional income distribution and aggregate demand in the Euro-area,* Working Paper No. 102, Department of Economics (Vienna, Vienna University of Economics).

Suryahadi, A.; Sumarto, S.; Maxwell, J. 2001. *Wage and employment effects of minimum wage policy in the Indonesian urban labor market*, SMERU Research Report (Jakarta, The SMERU Research Institute).

The Low Pay Commission (LPC). 2012. *National minimum wage: Low pay commission report 2012* (London, Low Pay Commission).

—. 2009. *National minimum wage: Low pay commission report 2009* (London, Low Pay Commission).

Vaughan-Whitehead, D. 2011. *Work inequalities in the crisis: Evidence from Europe* (Cheltenham and Geneva, Edward Elgar and ILO).

Investment for a job-friendly recovery

4

Main findings

- Globally, investment as a share of GDP remains close to 1 percentage point below the pre-crisis level. In 2012, emerging economies accounted for nearly 47 per cent of global investment (with China alone accounting for more than one-quarter of all investment), compared with only 27 per cent in 2000. Developing economies have also grown in importance, but a closer examination reveals that when India and Indonesia are excluded, investment in this group has been stagnant. Advanced economies represented just over one-third of global investment in 2012, compared with over 60 per cent in 2000. Importantly, investment patterns have closely mirrored the employment trends presented in Chapter 1. It is therefore crucial to identify factors that can unlock additional investment in developing economies where it has failed to grow and in advanced economies where it has fallen.
- Yet, in most cases, profitability levels are close to normal or, in the case of large enterprises and global stock markets, are close to pre-crisis or even above historic highs. Rising profits have been channelled instead towards higher cash holdings: the cash holdings of publicly listed enterprises increased from USD 2.3 trillion in 2000 to 5.2 trillion in 2008 and continued to rise further during the crisis, reaching USD 6.5 trillion in 2011 (latest available year). A similar trend can be observed in both advanced economies and in emerging and developing economies.
- This chapter shows that, first, a key barrier to productive investment can be found in the failure of financial systems to play their role in distributing credit, which is especially problematic with respect to small firms. The chapter highlights a number of policy and regulatory measures that could improve financial functioning – especially for small firms – in a manner which is more employment-friendly, including credit guarantees, earmarking financing and credit mediation.

- Second, public investment initiatives towards certain sectors could help firms, large and small, take advantage of new technologies and emerging growth opportunities. This can be achieved through a range of fiscal policies, e.g. tax exemptions or accelerated depreciation, or direct investments targeted towards capital assets that are known to be employment-intensive or meet other goals such as investments with energy-saving characteristics.
- Third, efforts to address certain corporate management practices, notably as regards the design of executive compensation, could help foster improved sustainable business performance. In some instances, compensation packages have not been adequately linked to firm performance or appear misaligned with average compensation in the economy. For example, in 2011, the chief executive officers of the largest firms in the United States earned on average 508 times the earnings of the average American worker. Potential options to achieve this objective include enhancing long term-incentives, introducing complementary measures of performance in addition to shareholder value and providing a binding "say on pay" for shareholders. In addition, improving the management function of the boards of directors for corporations can help align corporate policies, including executive pay, with the interests of all stakeholders.
- Finally, the chapter points to the importance of reducing economic uncertainty in order to encourage investment, particularly by pursuing macroeconomic strategies that stimulate aggregate demand, as present and expected future demand are key factors in decisions to invest in productive capacity and thus to create more jobs. Job-friendly macroeconomic strategies are examined in more detail in Chapter 5.

Introduction

The purpose of this chapter is to assess the barriers to higher productive investment and to identify policy levers that could help to overcome them, with a view to helping address the employment and social gaps identified in Chapters 1 and 2.

The main current patterns of investment are documented in section A. To gain a deeper understanding of the factors affecting investment decisions, section B examines trends in profitability. It uses a variety of measures: gross operating surplus as measured in national accounts, profit margins of publicly listed firms (small and large), stock market indicators, cash holdings in publicly listed companies and executive pay. Section C presents the findings of a quantitative assessment of the factors influencing investment decisions, including aggregate demand patterns, economic uncertainty and financial constraints. Finally, section D discusses the policy implications of the findings.

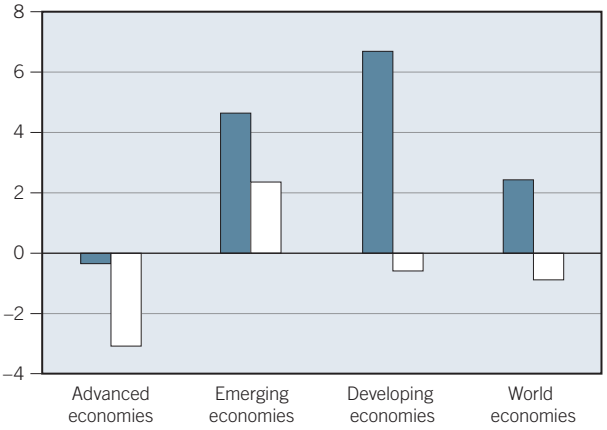
A. Global patterns and trends in investment

Investment patterns are uneven…

Leading up to the crisis, i.e. between 2000 and 2007, global investment as a share of GDP grew by 2.4 percentage points (figure 4.1).[1] The increase was driven primarily by growth in the emerging and developing economies, where investment as a share of GDP grew by 4.7 and 6.7 percentage points, respectively. In advanced economies, investment as a share of GDP declined by 0.3 percentage points.

The global financial crisis had a significant negative impact on global investment, with all regions experiencing a decline in investment as a share of GDP. And while investment has recovered from the trough, in 2012 global investment as a share of GDP remained close to 1 percentage point below the 2007 level. Only in emerging economies was the fall in investment relatively short lived; in 2012, investment as a share of GDP in this group (at 34.3 per cent) was already 2.3 percentage points above the 2007 level. In developing economies investment remains subdued; despite a modest increase in 2011, it remains 0.6 percentage points below the 2007 level. In advanced economies, the decline in investment has accelerated: it fell from 21.6 per cent of GDP in 2007 to 18.5 per cent of GDP in 2012.

Figure 4.1 Changes in investment as a share of GDP (percentage points)



Note: Total investment refers to gross fixed capital formation by the public and private sectors (see text). Averages are weighted based upon 2011 GDP at purchasing power parity (see Appendix A of Chapter 1 for detailed country listing and income grouping).

Source: IILS estimates based on IMF World Economic Outlook.

…with close to half of investment in 2012 going to emerging economies…

The composition of global investment has shifted dramatically. In 2000, advanced economies accounted for more than 60 per cent of total investment, with the United States and the European Union accounting for close to half of all investment worldwide (table 4.1). Emerging economies accounted for less than one-third of total investment and developing economies a mere 11 per cent. However, in 2012, following 12 years of rapid growth, emerging economies' share of global investment grew to close to half, with China alone contributing 28 per cent of all investment – compared with 11 per cent in 2000 – and other emerging economies, such as Brazil and Russian Federation, accounting for an additional 5 per cent. The share of global investment attributed to developing economies also grew between

1. Total investment (public and private) refers to gross fixed capital formation and changes in inventories and acquisitions less disposals of valuables for a unit or sector. See also the note to figure 4.1.

Table 4.1 Distribution of global investment by country grouping and major economies, 2000, 2007 and 2012

	% of GDP			Share of global investment		
	2000	2007	2012	2000	2007	2012
Advanced	**21.9**	**21.6**	**18.5**	**60.4**	**48.0**	**36.6**
European Union	21.9	22.2	18.3	23.4	19.1	13.6
United States	20.9	19.6	16.2	21.6	16.3	12.1
Japan	25.1	22.9	20.3	8.5	5.8	4.5
Emerging	**28.3**	**31.9**	**34.3**	**27.2**	**37.2**	**46.7**
China	35.1	41.7	47.8	11.0	18.2	28.1
Russian Federation	18.7	25.4	23.5	2.2	3.2	2.8
Brazil	18.3	18.3	20.2	2.3	2.0	2.3
Developing	**23.0**	**29.6**	**29.4**	**11.3**	**14.8**	**16.7**
India	24.2	37.4	36.0	4.0	6.9	8.1
Indonesia	22.2	24.9	34.9	1.2	1.2	2.0
Other developing	22.2	24.6	23.2	6.2	6.7	6.6

Source: IILS estimates based on IMF World Economic Outlook.

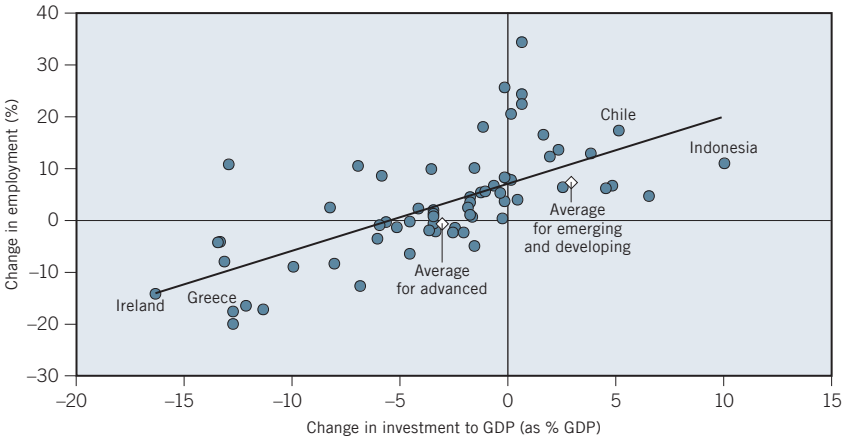
2000 and 2012, from 11.3 per cent to 16.7 per cent; however, when excluding the sizeable increases in both India and Indonesia, developing economies' share of total investment was actually flat over the past 12 years.

...which has had employment implications during the crisis.

Investment is generally considered as one of the major determinants of labour market outcomes, as production and utilization of capital goods requires labour and creates incomes. Higher investment generally has translated into improved job growth – even when controlling for a lag in investment (figure 4.2). In emerging and developing economies, employment grew by roughly 7 per cent on average between 2007 and 2012, with investment as share of GDP in 2012 1.5 percentage points above levels of 5 years previously. Among advanced economies, where employment levels remain about 1 per cent below the pre-crisis levels, investment as a share of GDP declined more than 3 percentage points.

However, the relationship between investment and employment is highly dynamic, with causality flowing in both directions. For example, by stimulating employment, investment can increases consumer incomes, which can translate

Figure 4.2 Investment–employment relationship, 2007–12



Source: IILS estimates based on IMF World Economic Outlook and Chapter 1 of this report.

into greater demand and thus trigger more investment (see also Chapter 3 and 5). Improving investment activity is equally crucial to renewing and transforming economies' real capital stock, thus enabling firms to take advantage of new opportunities, expand and hire new employees.

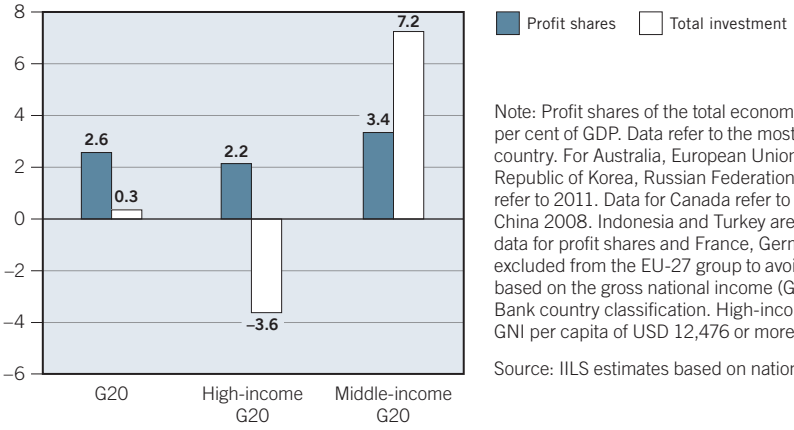
B. Overview of economy-wide and firm profitability

Profits have generally recovered to pre-crisis levels or have exceeded them…

Conventional measures of profit, such as gross operating surplus, have increased in the past decade among major economies for which recent information is available. In fact, the trend increase in profit shares has continued almost uninterrupted since 2000 for both high- and middle-income G20 countries.[2] The profit share for the total economy in middle-income G20 countries increased 3.4 percentage points from approximately 37.3 per cent in 2000 to 40.7 per cent in 2010/11. For high-income G20 countries the increase was of a similar magnitude, i.e. 2.2 percentage points over the 11 year span (figure 4.3). However, there is a stark contrast between the evolution of profit shares and investment in high-income compared with middle-income G20 countries: in the former, investment actually declined by 3.6 percentage points whereas in the middle-income countries, investment increased by more than 7 percentage points.

Rising profit margins are also reflected in global stock indices, which, in several instances, have come close to – or exceeded – historical highs. Since the trough of early 2009, global stock markets indices have doubled. The trend is particularly striking in some advanced economies, notably the United States, where the Standard and Poor's 500 index (which tracks the 500 leading companies publicly traded in the US stock market) was at the time of writing more than 4 per cent above its historical high. The German stock market – as measured by the DAX – also hit all-time highs.

Figure 4.3 Changes in profit shares and total investment between 2000 and 2010/11 (percentage points)



Note: Profit shares of the total economy and total investment are measured as a per cent of GDP. Data refer to the most recent available information for each country. For Australia, European Union, France, Germany, Italy, Japan, Mexico, Republic of Korea, Russian Federation, South Africa and the United Kingdom refer to 2011. Data for Canada refer to 2010, Brazil and Saudi Arabia 2009, and China 2008. Indonesia and Turkey are excluded from the analysis due to lack of data for profit shares and France, Germany, Italy and the United Kingdom are excluded from the EU-27 group to avoid double counting. Income groups are based on the gross national income (GNI) per capita, according to the World Bank country classification. High-income countries are those countries with a GNI per capita of USD 12,476 or more. Figures are GDP weighted.

Source: IILS estimates based on national accounts.

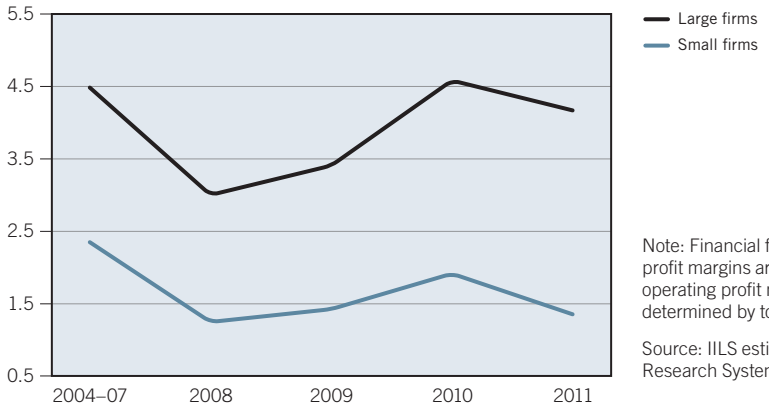
2. Profit shares of the total economy refers to gross operating surpluses of government, financial and non-financial corporations, non-profit institutions and households.

…and this is confirmed by analysis of private companies' accounts – although there is a growing polarization between large and small firms' profitability.

To improve understanding of the connections between profits, investment, and cash holdings enterprise-level data for publicly listed firms were examined.[3] While publicly listed firms are not fully representative of economy-wide developments, an examination of firm-level data allows a deeper analysis of the factors driving the investment–cash relationship, which may shed light on the aggregate patterns. An analysis performed for the purposes of this chapter for the period 2000 to 2011 shows that the correlation coefficient of investment of publicly listed firms and total, economy-wide investment is 0.97. Indeed, investment patterns as a share of total assets of publicly listed companies for both the advanced and emerging/developing group of firms leading up to the crisis closely mirrors the aggregate trends in investment described above.[4] Trends since the onset of the crisis are also similar to aggregate investment patterns described in the previous section: since 2009, investment has improved considerably in emerging and developing firms but the recovery has been stagnant among advanced country firms.[5]

Firm level profitability also closely tracks aggregate developments. However, there has been a growing polarization between small and larger firms in terms of profitability, with the former continuing to face challenges. Indeed, while profit margins of both small and large firms fell at the onset of the crisis, profitability has recovered unevenly. In fact since 2008, the profit margins of large firms have trended upward, and despite a small dip in 2011 average profit margins are similar to levels attained between 2004 and 2007 (figure 4.4). Among smaller firms, the recovery has been more modest, and with the recent slowdown, profit margins have fallen again – and significantly. As a result, the profit margin of smaller firms in 2011 stood at only 1.3 per cent – more than 40 per cent below the average attained between 2004 and 2007.

Figure 4.4 Profit margins in large versus small firms (per cent)



Note: Financial firms are excluded. Average profit margins are estimated as the median operating profit margin and firm size is determined by total asset value.

Source: IILS estimates based on FactSet Research Systems.

3. The analysis is based on FactSet Research Systems, which offers detailed financial statement data (balance sheets, income and cash flow statements and supplementary information such as employment) for corporations. It contains historical data for more than 72,000 public and private companies listed on financial markets.

4. Investment as a share of total assets of publicly listed companies in emerging and developing firms rose from about 4 per cent to 6 per cent between 2000 and 2008 – a trend which is close to that for aggregate investment in those countries. In advanced economies, it fell from 4.2 per cent to 3.7 per cent over the same period – also close to the trend for aggregate developments. For the enterprise-level analysis, firms in emerging and developing economies were grouped together due to the limited number of observations for the latter.

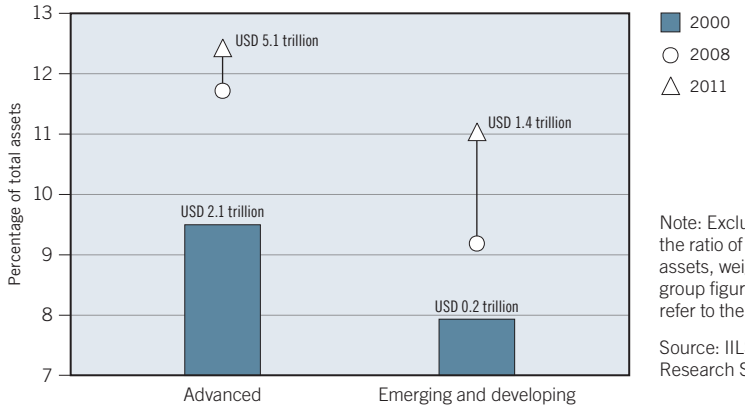
5. Among advanced country firms, investment to total assets remains around 3 per cent but in emerging and developing firms it reached 4.5 per cent in 2011.

An increasing share of profits are held as cash or used to pay dividends and buy back shares...

A clear indicator of companies' reticence to invest is their increased tendency to hold more cash as a per cent of total assets. The trend rise in cash holdings started in the late 1990s and accelerated following the economic crisis.[6] Between 2000 and 2008, cash holdings as a per cent of total assets increased from 9.5 per cent to 11.8 per cent in the advanced group of firms and from 7.9 per cent to 9.2 per cent in the emerging and developing firms (figure 4.5). And while cash holdings as a per cent of total assets fell briefly in the initial stages of the crisis, firms have since resumed the pattern of holding more cash: in 2011, cash holdings reached 12.4 per cent of total assets among advanced firms and 10.8 per cent among emerging and developing. In absolute terms, the cash holdings of firms in both groups of economies rose from USD 2.3 trillion in 2000 to USD 6.5 trillion in 2011.

In both the advanced and emerging/developing group of firms, with the exception of a brief slowdown in 2009, both dividends and share buy-backs as a percentage of total assets have trended upwards since 2003 (figure 4.6). After the brief – but steep – decline in 2009, dividends and share repurchases climbed to 1.6 per cent of total assets (close to the pre-crisis peak of 1.8 per cent) and in terms of value, stood at USD 1.6 trillion in 2011 – the highest level for 12 years.

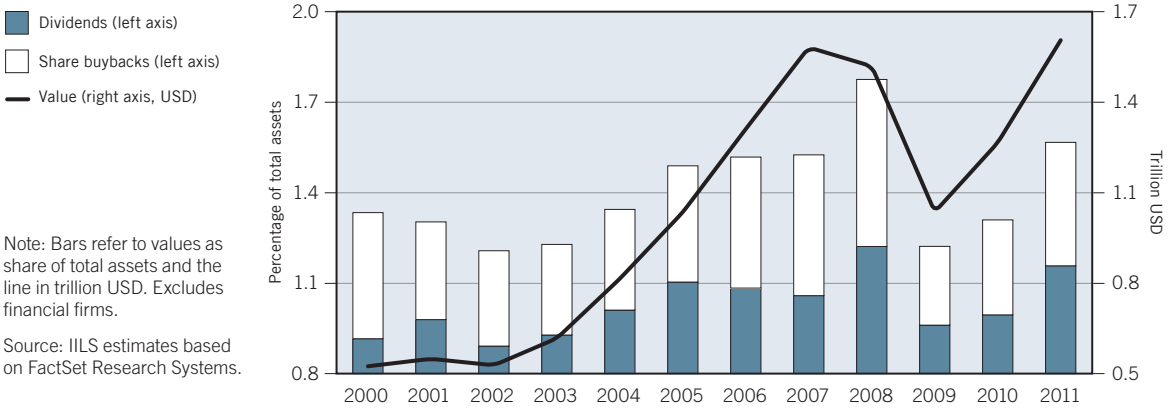
Figure 4.5 Cash holdings among publicly listed firms (as a percentage of total assets)



Note: Excludes financial firms. Refers to the ratio of median cash holdings to total assets, weighted by total assets to estimate group figures. Figures next to data labels refer to the value of cash holdings.

Source: IILS estimates based on FactSet Research Systems.

Figure 4.6 Dividends and share buy-backs (as a percentage of total assets and in trillion USD)



Note: Bars refer to values as share of total assets and the line in trillion USD. Excludes financial firms.

Source: IILS estimates based on FactSet Research Systems.

6. See also Sanchez and Yurdagul (2013), Ennis and Wolman (2012), Pinkowitz et al. (2012) and Chang et al. (2011).

One possible rationale for holding more cash is, indeed, the higher anticipated cash outlays for disbursements such as dividends.[7] Furthermore, once a pattern of dividend payouts is established, it is often very difficult to reverse it due to negative signalling effects.[8] Thus, establishing future expectations of dividend payments can limit future productive investment prospects.[9] While investment is a primary way to raise returns to equity over the medium term, firms may reward shareholders by using cash and profits to pay dividends and reduce the number of shares outstanding in the absence of viable investment opportunities.[10]

...and to increase executive pay.

Similarly, executive compensation has returned to, and in some cases exceeded, pre-recession levels – at least in the economies for which such data could be compiled for this chapter (figure 4.7, panel A).[11]

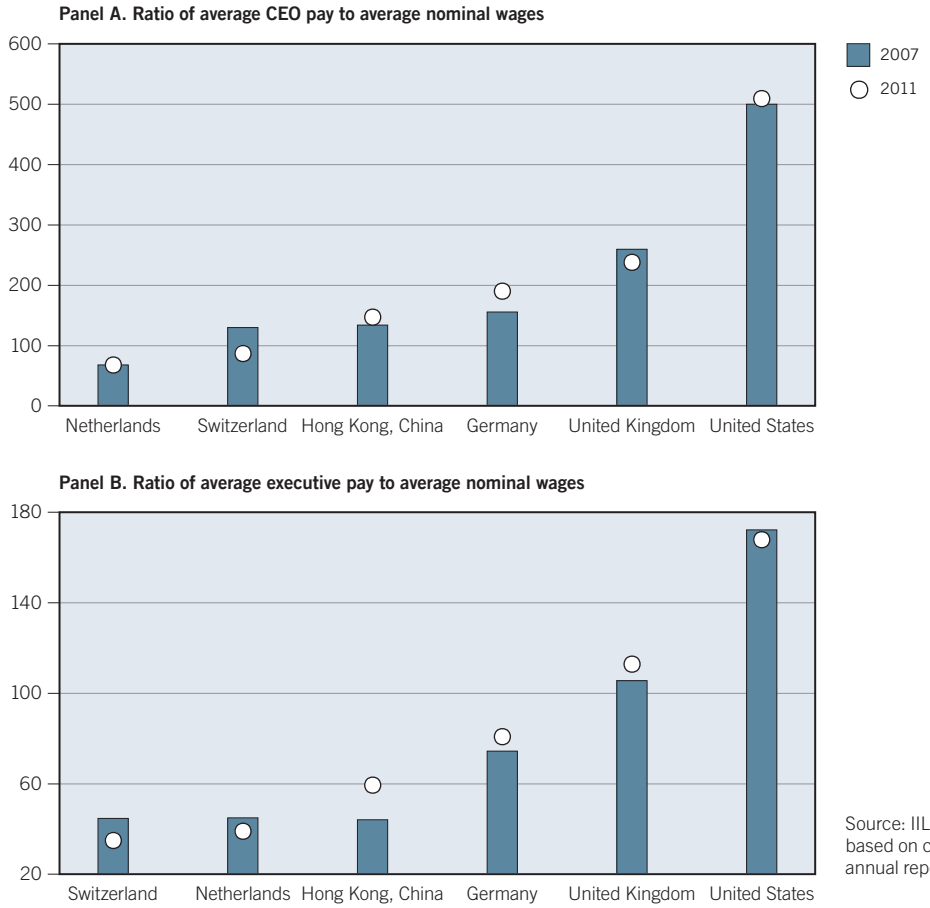
The increases were particularly acute in Germany and Hong Kong, China, where average chief executive officer (CEO) pay among the largest firms grew by more than 25 per cent between 2007 and 2011. As a result, the ratio of CEO pay to average compensation in the economy grew from 155 to 190 in Germany and from 135 to nearly 150 in Hong Kong, China. In the United States, average CEO pay among the largest firms grew by 10 per cent over the same period and in 2011 was 508 times larger than compensation of the average employee. In both the Netherlands and the United Kingdom, at 69 and 228 times average employee compensation, respectively, average CEO earnings in 2011 had returned to levels comparable to 2007. Only in Switzerland did the ratio fall significantly, from 129 to 87; it also fell moderately in the United Kingdom. In comparing other executives of the same firms to average workers, the ratio was considerably lower and rose in fewer cases over the same period (figure 4.7, panel B). However, there were notable increases in Germany, Hong Kong, China and the United Kingdom. In the United States, although there was a small decline, the average executive earned 167 times the average worker, followed by the United Kingdom and Germany, where the average executive earns 113 and 81 times more than the average worker, respectively.

In terms of firm performance, concerns have been voiced that the level and structure of executive pay can lead to a search for short-term profits, without necessarily promoting the long-term prospects of enterprises.[12] This risk is particularly acute when incentive programmes for executives focus on short-term goals.[13] For instance, among the largest firms examined, short-term-oriented bonuses account for more than one-third of total compensation on average – and more than two-thirds when combined with share-based compensation (table 4.2).

---

7. Dividends as a share of gross operating surplus did increase during this period (ILO, 2011).
8. See, for example, Miller and Rock (1985).
9. Servaes and Tufano (2006).
10. See, for instance, DeAngelo et al. (2006).
11. Figures in this section refer to the average CEO pay and average executive pay among the largest 15 firms, based on market capitalization, in Germany, the United States, the United Kingdom and the largest seven firms in Hong Kong, China, the Netherlands and Switzerland. In a number of countries, for instance Argentina, Brazil, Mexico, and Turkey, only general information on aggregate executive compensation is provided which does not allow for an analysis of CEO pay. In other countries, e.g. South Africa, companies do not provide the value of the share-based compensation component or adopt diverging methods for calculating this value, making a cross-company comparison difficult. In this regard, efforts to improve international harmonization of reporting standards to ensure transparency may be warranted.
12. See, for instance, Eccles et al. (2011).
13. See, for example, Frydman and Jenter (2010), ERC (2010) and ILO (2008).

Figure 4.7 Ratio of CEO and executive compensation to average compensation in the economy, 2007 and 2011



Source: IILS estimates based on company annual reports.

Table 4.2 Average compensation of CEOs and executives by type, 2011 (percentages)

	Base salary		Bonus		Share-based		Other	
	CEO	Other executives	CEO	Other executives	CEO	Other executives	CEO	Other executives
Germany	22.7	23.7	54.8	53.5	16.0	15.9	6.5	6.8
Hong Kong, China	23.4	34.9	59.2	44.0	16.5	20.0	0.9	1.2
Netherlands	32.6	34.9	28.3	44.0	37.9	20.0	1.3	1.2
Switzerland	22.8	34.9	36.4	44.0	38.6	20.0	2.2	1.2
United Kingdom	14.0	17.6	19.8	22.8	63.8	53.5	2.3	6.1
United States	5.7	9.3	18.5	21.8	74.0	65.1	1.8	3.8
Average	**20.2**	**25.9**	**36.2**	**38.4**	**41.1**	**32.4**	**2.5**	**3.4**

Source: IILS estimates based on company annual reports.

Of course, share-based compensation is an important indicator of corporate performance as improvements in stock prices may represent increases in shareholder value. However, unless well-designed, it may create incentives for executives to focus on raising stock values in the short term, creating a disincentive for long-term investments.[14] Practised by many firms, this can have economy-wide impacts. Deckop et al. (2006), for example, find a negative correlation between short-term-focused executive compensation and corporate social performance, measured by

14. Sappideen (2011).

indicators such as product quality, employee relations and protection of the environment. It also raises concerns about income distribution: for example, in the case of the United States, 93 per cent of growth in average real household income in 2010 was captured by the top 1 per cent of the population, as shown in Chapter 2.

The issue has led to recent debates over the desirability of reform. Switzerland has engaged in a reform of compensation systems that will give a company's shareholders, among others, the right to a binding vote on executive pay and bonuses.[15] Regarding Danish limited liability and financial companies and Indian financial companies, the variable compensation of executives may not exceed 50 per cent and 70 per cent, respectively, of their fixed remuneration. An EU proposal which caps bonuses for financial firms at double the annual salary could enter into force at the beginning of 2014. A number of other, less robust measures have been taken elsewhere. For instance, executives at banks in Spain that received bailout money are subject to compensation limits; the United States gave shareholders a non-binding vote on compensation; France introduced an absolute cap of compensation for state-owned enterprises[16] and Germany issued new compensation guidelines. Several countries, such as Australia and the Netherlands, have introduced or are considering "claw-back policies".[17]

C. Empirical analysis of investment factors[18]

The disconnection between high profits and low investment in high-income economies has attracted considerable attention. Lack of aggregate demand is likely to be a key factor, with uncertain sales prospects leading firms to postpone new investments.[19] Some analysts argue that financial markets are also influencing the liquidity–investment relationship of firms, either directly (in terms of financing) or indirectly (through pressure to distribute profits via various means, e.g. dividends, rather than re-investing in the firm as discussed above).[20] The purpose of this section is to shed light on the weight of the various factors influencing investment.

Economic uncertainty and aggregate demand are major factors at work...

The expectations of firms regarding the future and the uncertainty about aggregate demand can be critical factors driving investment decisions. Economic and political uncertainty can prevent firms from undertaking new investments and thus lead to delays in job creation.[21] Given the current economic context, private investment may be more influenced by policies that improve the outlook for firms and households (economic, political and social) than by more accommodative policies that influence the already low cost of capital.

15. See box 4.2 for more details regarding the changes in Swiss law and Appendix B for a review of changes at the country level with respect to financial sector reform more generally.
16. France issued a binding law limiting yearly compensation in state-owned enterprises at EUR 450,000.
17. See also Prosser (2009) and OECD (2011). This would allow companies to retrieve executive compensation if it was erroneously awarded or if bank failures were attributable to a specific executive.
18. This section summarises key findings from the empirical analysis of Appendix A.
19. See Chapter 4 ILO (2012) for a detailed discussion of issues related to uncertainty and investment.
20. The US Saint Louis Federal Reserve (2013) found that dividend payments (along with income taxes) were a significant determinant of cash holdings in the United States.
21. ILO (2012).

Among the factors affecting aggregate demand are rising inequality and poor employment prospects of households – as discussed in Chapters 1 and 2 – which can feed a vicious cycle whereby low aggregate demand holds back investment, which leads to less employment and even lower demand. The large cash holdings of firms may be one consequence.

...exacerbated by the disconnection between the financial sector and the real economy.

In advanced economies, the continued difficulties in financial systems has been an additional factor depressing investment. Many firms, especially smaller ones, continue to face credit constraints. For instance, in September 2012 a report to Congress in the United States highlighted the fact that over the course of the crisis the credit conditions for small and medium-sized enterprise (SMEs) changed substantially and in 2012 credit flows to SMEs remained well below pre-crisis levels (whereas larger firms had attained pre-crisis credit flows).[22] Similarly, in January of 2013, 14 per cent of SMEs in the euro area reported a tightening of credit standards (up from 11 per cent in October of 2012).

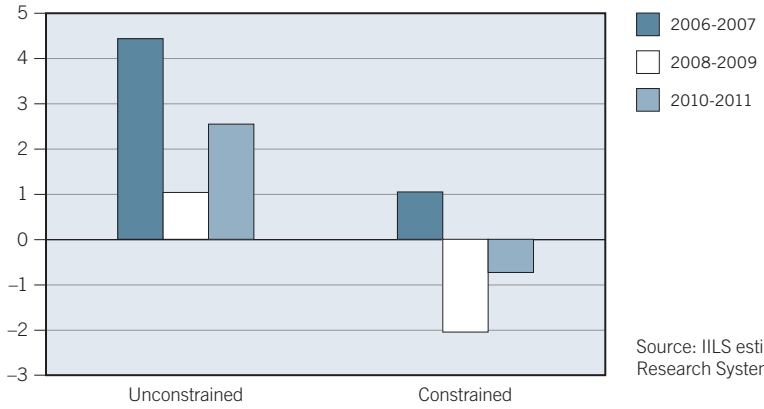
Importantly, financially constrained firms are investing only half as much of their assets as unconstrained firms, adversely affecting job creation. In the two years preceding the crisis employment grew on average at 4.4 per cent among financially unconstrained firms and by just 1 per cent among constrained firms (figure 4.8). And while employment growth in both slowed over 2008 and 2009, there has been a partial recovery among financially unconstrained firms over 2010 to 2011, whereas firms with financial constraints still experienced reduced employment growth, on average.

Part of the problem lies in the fact that financial systems – that play a central role in facilitating productivity-enhancing private and public investment – remain fragile. This is due in some measure to the fact the overall process of financial sector reform has been slower than planned (see Appendix B).[23] The following trends can be noticed:

- *Changes in capital adequacy:* 19 out of the 30 countries for which information is available have not enforced expected reforms, according to information from the Financial Stability Board. Basel-III liquidity requirements will not be enacted until 2019, four years later than originally planned.
- *Systemic risk regulator*: A number of countries have created systemic risk regulators or strengthened existing institutions. For instance, in Argentina, Brazil, Indonesia and Mexico, the central banks have been given more authority to handle systemic risk. In Australia, France, Switzerland and Turkey, independent committees have been established to address systemic risk.[24] At the EU level, the creation of a "single supervisory mechanism" which would grant the European Central Bank direct supervisory powers over system-relevant banks in the euro area countries is currently being deliberated. Yet, overall more than two-thirds of the countries assessed have not addressed the issue (see Appendix

22. Board of Governors of the Federal Reserve System (2012).
23. The sub-section on financial sector reform and Appendix B was prepared by Kristina Deighan under the guidance of Sameer Khatiwada.
24. Australia created the Australian Prudential Risk Authority; France created the Council in Charge of Regulating the Financial Sector and Monitoring Systemic Risk; Switzerland created a Systemic Risk Oversight Committee; and Turkey created a Systemic Risk Coordination Committee.

Figure 4.8 Employment growth in financially constrained versus unconstrained firms (percentages)



Source: IILS estimates based on FactSet Research Systems (see Appendix A).

B). Newly established entities sometimes lack the authority to make substantial changes. For example, the EU created a European Systemic Risk Board, but its actions or recommendations are not legally binding.

- *Separation of retail and financial activities:* Among advanced economies, only the United Kingdom has prepared "ring-fencing" legislation that would heavily penalize institutions that fail to separate their core retail activities from other banking. In the United States, the Volcker Rule was designed to separate commercial and investment banking activity in an effort to protect consumers; however, it still has not been fully implemented.[25]

D. Policy considerations

There is a case for direct measures to stimulate investment, especially among SMEs...

To enable enterprises to take advantage of improving or new markets and create employment, it is necessary in many countries to unlock the credit flow. In the short term, re-establishing credit flows to SMEs, which account for significant job creation, could be done through policy measures that can be enacted quickly and at little or no financial cost (box 4.1). In particular, credit guarantees, improved credit mediation and earmarked liquidity can help restore credit to SMEs.

While measures to restore credit lines are necessary, they are not sufficient to restore investment growth. SMEs, notably microenterprises, often lack the business expertise needed to handle investments of a scale that enables enterprise development and growth. In these cases, studies have shown that credit support should be accompanied by training and consultancy services. In developing economies, the vast majority of microenterprises are in the informal sector, where support that combines management training with eased credit conditions could accelerate investment and growth that is sustainable.

Other policy tools to stimulate and encourage investment have been used by a number of countries. In particular, tax advantages for firms undertaking investments in the real economy can be effective incentives. These include measures such

25. The Volcker Rule bans banks from investing, sponsoring or owning hedge funds for the banks' own profit, to ensure that banks are not gambling with depositors' funds.

Box 4.1 Measures to restore credit flows to SMEs

Credit guarantees. There are three main types of credit guarantee schemes: public, corporate and mutual (the last one being the most common). Mutual schemes leverage public resources to back or guarantee the loans provided by financial institutions to viable SMEs. All or part of the loan can be guaranteed, thus enhancing lender confidence. Studies show that this type of programme is successful because it merges the government's funding and management capacities with banks' credit risk assessments and financial expertise (Beck et al., 2010). For example:

- The Canada Small Business Financing Program is a joint government–lender programme that gives banks the authority to make credit decisions and, in the event that a borrower defaults, Industry Canada pays up to 85 per cent of the lender's net losses. Studies show that this programme created more than 18,000 new jobs over 2010 and 2011 by dispersing over 7,000 loans, an average of 2.5 new jobs per loan.
- Denmark created "get started" loans, consisting of loan guarantees and consultancy services for new businesses.

Credit mediation. Credit mediation schemes can help SMEs whose demand for credit has been entirely or partially rejected by financial institutions due to reasons not related to the viability of the business. Schemes were introduced in a number of countries in response to the crisis. For example:

- France has turned temporary measures into longer-term initiatives to support SMEs which encounter difficulties in credit and insurance markets. According to figures from 2011, the Médiateur de Crédit, the French credit mediation scheme, freed EUR 3.5 billion in credit, reinforced 14,290 firms and preserved 247,139 jobs.
- In 2010, Ireland introduced a Credit Review Office to provide SMEs with independent risk assessment and to facilitate applications for public funding. Early evidence suggests that credit mediation mechanisms have been effective in responding to the credit needs of SMEs.

Direct financial support. Direct grants in the form of loans and partial equity positions can be provided to small enterprises. For example:

- As part of the Action Plan for Jobs, the government of Ireland established the Micro Finance Loan Fund in the first quarter of 2012. The fund has already generated EUR 90 million in additional micro-enterprise lending and is expected to benefit 5,000 businesses and create 7,700 jobs over a ten-year period.
- Direct funding can also be provided through co-investment or by introducing fiscal incentives. In the Netherlands, for example, private investors are incentivized through tax offset schemes to invest in SMEs that undertake research and development.

Earmarked liquidity. In the United States, the 22 largest recipients of government bailout money actually decreased lending to small businesses by USD 43 billion, or 6.2 per cent, between 2009 and 2010. Future bank bailouts could include such conditions as making available to the public the amount of loans provided to SMEs (and the value of loan applications rejected) and earmarking a share of the bailout funds for credit to SMEs, particularly for innovative ventures.

as accelerated depreciation schemes, which allow firms to write off the costs of assets from their taxable income more quickly and at a higher rate – making it relatively less expensive to acquire new equipment. Another possibility is to exempt certain investments from taxation at the initial stage, but to phase out the exemption over time. Tax exemptions may be targeted to economically underdeveloped regions with high unemployment. More generally, equitable, simple and efficient overall tax structures can also eliminate disadvantages for small firms.

Governments can also target initiatives, including providing direct support such as co-financing, towards certain sectors in order to help firms – large and small – take advantage of new technologies and emerging growth sectors. In order to ensure maximum employment effects, such policies could be targeted towards sectors that are employment-intensive or that meet other goals, such as investments with energy-saving characteristics.

...and efforts are needed to better align the financial sector with the real economy...

Financial systems are essential for sound and sustainable economic growth. And while a vibrant financial sector necessarily entails innovation, recent evidence suggests that unless well-designed, with proper oversight, it can lead to negative social returns.[26] As such, greater efforts are needed to encourage a better alignment of the activities of the financial sector with the needs of the real economy. The following areas for improvement could be considered:

- *Enhancing social benefits of financial intermediation*: Measures to align the behaviour of the financial sector with social benefits include risk sharing with clients, improved internal and external transparency (e.g. to reduce the possibility of money laundering, financial fraud, etc.) and increasing the accountability for risk by top management (see below).
- *Harmonization of financial regulation*: Avoiding regulatory arbitrage has gained increased attention since the financial crisis. While international coordination is always difficult, governments could make greater efforts to accelerate work toward convergence of prudential regulations, for example through institutions set up to coordinate banking regulation (e.g. Basel) and the G20.
- *Better governance framework for financial innovation*: The governance framework for financial innovation could be strengthened so that the likelihood of negative outcomes due to a financial product or services is minimized. Mechanisms that could be considered include allowing institutions and regulators to test financial products for potential negative impacts and externalities before they are deployed (as was the case with mortgage-backed securities). Improving the overall risk management regarding the use of existing products and services will have a spillover effect on the nature of the future financial products.

...as well as improvements to corporate governance, including aligning executive compensation with equity and efficiency concerns.

Executive compensation packages that primarily reward short-term performance can encourage management practices that may harm firms and their shareholders over the medium term and have serious negative externalities. The challenge is to ensure that compensation is set at a reasonable level (addressing society's concerns regarding equity) and corresponds to a firm's performance (addressing concerns about efficiency). In order to foster these objectives, action on both the design of executive compensation and the process of determining compensation can be considered.

- *Reduce the use of short-term incentives and enhance long-term incentives*: Greater emphasis could be placed on incentive schemes based over a three- to five-year period. Where short-term bonuses are paid, increased use of shares that vest only after a certain amount of time could be considered ("deferred bonus") (mentioned in G20 Summit, 2009) to limit short-termism.[27] Consideration

26. See Arcand et al. (2011) and Beck et al. (2012).
27. In Belgium, at least 25 per cent of the bonus must, with some exceptions, be based on performance criteria relating to a two-year period and another 25 per cent on criteria relating to a three-year period. The rule does not apply if the bonus does not exceed 25 per cent of the overall compensation.

could be given to "claw-back clauses" that retrieve bonus payments from executives if outcomes of poor decisions accrue later or were based on misstated data. Similarly, the long-term effects of share-based compensation could be improved by allowing for share awards or options to be sold or exercised only after a significant amount of time,[28] for example after the executive's retirement.[29]

- *Introduce complementary measures of performance*: While shareholder value is important, alternative and complementary measures of performance could be included as criteria for variable compensation. For instance, some companies have started to link a part of the performance-based compensation of executives to social and environmental objectives. The French firm Danone, for example, links one-third of its bonus payments to the accomplishment of goals such as improving workplace safety and reducing carbon dioxide emissions.[30] Criteria relating to safety and operational risk management are also used to determine one-third of the bonus payments at BP plc.[31] In 2009, the Dutch Akzo Nobel tied half of the award of shares under the incentive programme to the company's ranking in the Dow Jones Sustainability Index, which assesses company performance according to economic, social and environmental criteria.[32] Other companies, such as Volkswagen, use the objectives relating to customer satisfaction set out in the company's strategy document as a criterion for awarding long-term variable compensation.[33]
- *Provide for relative limits on executive compensation*: Relative limits on the total amount of compensation or on individual components of a compensation package could also be considered to address concerns about equity. An ambitious option would be to impose limits on total executive compensation relative to other wages in the firm. This would provide an incentive for executives to strive towards improving the salaries of their employees. For example, SolarWorld limits executive compensation to 20 times the average employee remuneration, in response to a resolution of its shareholders.[34] Similarly, in the United States, Whole Foods Market caps executives' cash compensation at 19 times the average employee wage.[35] Such policies could be imposed by shareholders or could be considered as broader guidelines by governments.
- *Introduce a "say on pay":* Company shareholders could be given the opportunity to decide on elements of executive compensation. Binding votes could be considered, particularly regarding share-based incentives. Binding shareholder votes are already required in Norway and Denmark on share-based compensation and variable compensation, respectively, while in Japan, Sweden and the Netherlands, the entire compensation package is subject to a binding shareholder vote.[36,37] A binding shareholder vote was also part of a recent "citizens' initiative" in Switzerland that was approved in early 2013 (box 4.2). Requiring only a qualified minority rather than a majority vote in order to block the

28. Posner, 2009; Bebchuk and Fried (2010).
29. Bhagat and Romano (2009).
30. See Danone (2011).
31. See BP plc (2013).
32. See Eurosif (2010).
33. See Volkswagen (2011).
34. See SolarWorld (2011).
35. See Whole Foods Market (2011).
36. OECD (2011).
37. In Belgium, severance payments above a certain threshold must be approved by the shareholder assembly.

Box 4.2 Streamlining executive compensation: Examples of recent reform initiatives

A number of countries have adopted or initiated reforms with a view improving the alignment of executive compensation. These initiatives vary widely both in terms of content and approach, ranging from restrictions on the amount of compensation to a strengthening of the shareholders' role in this regard.

In Switzerland, a comprehensive and widely publicized citizens' initiative on executive compensation was approved March 2013 concerning Swiss public companies listed on Swiss or overseas stock exchanges. This initiative will bring about significant changes to the regulation of executive compensation and introduces one of the most progressive frameworks worldwide (Bryois et al., 2013). The new requirements include the following:

- It will be mandatory for shareholders to vote on the aggregate compensation of the directors and senior managers.
- Payments of golden parachutes and signing-on bonuses for members of corporate governing bodies will be prohibited.
- An annual shareholders' vote to elect the board's chairman and members will be mandatory.
- Sanctions under criminal law, including prison sentences, are foreseen for violations of the above requirements.[a]

At the level of the European Union, a consensus on new rules regarding executive compensation for the financial sector was reached in February 2013 between the European Parliament and the Council of Ministers to prevent undue risk-taking by executive directors. According to this proposal, the bonus payments to executives will be limited to the amount of the fixed salary. Only a qualified majority vote of the shareholders could raise the bonus payment, to a maximum of 200 per cent of the salary.[b] Once adopted, these rules would, through national legislation, be made binding on companies that have their seat in an EU Member State.

[a] For the text of the initiative see: http://www.remunerationsabusives.ch/initiative-populaire-remunerations-abusives/.

[b] See European Parliament, press release of 28 February 2013, "MEPs cap bankers' bonuses and set up bank capital requirements", Committee on Economic and Monetary Affairs. Available at: http://www.europarl.europa.eu/news/de/pressroom/content/20130225IPR06048/html/MEPs-cap-bankers'-bonuses-and-step-up-bank-capital-requirements.

proposed compensation package – as is the case in Australia[38] – would also help ensure that the concerns of smaller shareholders are not overridden by large institutional investors, which may have other business relations with the executive management.

Improving the management function of the boards of directors for corporations can also help align corporate policies, including executive pay, with the interest of all stakeholders. During the economic crisis, some stakeholders, e.g. employees and governments, had to shoulder the brunt of the adjustment costs. This experience has shown there is a need for a more stakeholder-oriented corporate governance framework – one which continues to include shareholder interests but attempts to limit failed management policies and attends to the valid interests of other stakeholders, particularly those who bear the cost of externalities. To achieve this, consideration could be given to: (i) disconnecting the roles of CEO and chairman of the board; (ii) ensuring that independent directors and experts are an important component of the board; and (iii) encouraging corporations to include social partners and employee representatives on their boards of directors, as is already the case in some countries.[39]

38. In Australia, a negative vote of only 25 per cent of the shareholders is necessary. While the vote is only of an advisory nature, a second negative vote can lead to a resolution requiring a re-election of the board members responsible for the compensation package (House of Representatives, 2011).

39. Recent studies have found, for example, that the presence of employee representatives on company boards is negatively correlated with the level of executive compensation as well as with the use of share-based compensation (see, notably, Vitols, 2010).

Appendix A

Empirical analysis of firm-level investment behaviour

In order to determine the link between increased liquidity (cash holdings) and a decline in real investment, it is essential to control for other factors. With that in mind, a microeconometric model based on firm-level data was developed which attempts to account for corporate cash holdings through a range of explanatory variables. These variables can be broadly grouped as follows: (i) financial constraints; (ii) economic uncertainty; (iii) postponed investment; (iv) future growth opportunities; and (v) institutional factors.

Data

The sample of firm-level data was constructed from the FactSet database for the period 2000 to 2011. The database consists of financial accounting and complementary firm-level data on publicly listed companies from 122 countries. The data utilized initially provides 763,529 firm-year observations. Financial firms were excluded because they hold cash for different reasons than non-financial firms (e.g. reserve requirements). In addition, following Baum et al. (2006), extreme outliers in terms of certain balance sheet figures were removed from the database. Often, these outliers can be attributed to mergers and acquisitions or companies being formed for legal or tax purposes.

Firms that experienced a very high change in their balance sheet total at any time during the sample period were excluded. For each country, the distribution of year-to-year growth in total assets was computed and firms below the 1 per cent and above the 99 per cent percentiles were removed. Furthermore, observations for cash ratios (to total assets) higher than 1 were excluded due to their implausibility. Only firms with a minimum of four consecutive time-series observations during the sample period were included. Finally, if a firm's cash holdings were more than three standard deviations above or below the mean cash holdings in that country, the firm was removed from the sample. Following this procedure, 535,176 firm-year observations remained in the sample. Table 4A.1 gives an overview of the key variables that were used and table 4A.2 summarizes the distributions of several parameters over the full time period.

Constructing the parameters

Certain firm-specific variables have been constructed to represent different aspects of corporate governance behaviour, investment decisions, growth potential, financial constraints, exposure to business risk and macroeconomic stability. To determine the factors that influence firms' liquidity holdings, different versions of an ordinary least squares (OLS) regression model were run. In all cases, following the vast majority of the literature, the dependent variable was firm liquidity, which is measured through the variable "cash and cash equivalents" (CASHEQ). This and all other variables used are expressed as their ratios to total assets. The

Table 4A.1 Definitions and abbreviations of variables

Variable	Definition	Abbreviation
Capital expenditures*	Investment	CAPEX
Cash and cash equivalents*	Liquidity	CASHEQ
Cash flow*	Gross income plus depreciation	CF
Debt-to-equity ratio	Indebtedness	DER
Dividends*	Dividends	DIV
Dividend payout ratio	Dividends over net income	DPR
Dividend yield	Dividend payments to market capitalization	DY
Effective interest rate	Interest expense over debt	EIR
Total employment (in 1000s)	Average employees per year	EMP
Years since initial public offering	Proxy for firm age	IPO
Leverage	Debt over total assets	LEV
Log of total assets	Proxy for firm size	LTA
Market-to-book ratio	Market value of firm over book value	MTB
Profit margin	Net income over revenue	OPM
Profit rate	Net income over equity	PR
R&D expenditures*	Expenditures for research and development	RD
Return on assets*	Net income over total assets	ROA
Share buy-backs*	Reduction of outstanding shares by company	SBB

* Variables expressed as a fraction of total assets.

Table 4A.2 Summary statistics all regions, 2001–11

Variable	Number of observations	Mean	Minimum	p25	p50	p75	Maximum
CAPEX	368420	0.06	0	0.01	0.03	0.07	0.49
CASHEQ	380119	0.19	0	0.03	0.10	0.25	1.00
CF	330000	0.25	–0.49	0.10	0.20	0.34	1.48
DER	346984	0.70	0	0.02	0.30	0.85	11.40
DIV	353771	0.01	0	0	0	0.01	0.17
DPR	351762	0.18	–1.16	0	0	0.25	3.58
DY	302097	1.60	0	0	0	2.47	15.93
EIR	297196	10.2	0	3.05	5.77	9.23	300.00
EMP	269762	4.93	0	0.13	0.58	2.33	2,200.00
IPO	81867	3.50	0	1.00	3.00	5.00	11.00
LEV	372488	0.22	0	0.01	0.17	0.34	1.59
LTA	377758	4.33	–4.79	2.95	4.41	5.84	13.46
MTB	299705	2.60	0.15	0.80	1.43	2.72	50.44
OPM	340553	–0.23	–15.49	–0.02	0.03	0.09	1.00
PR	373217	0.01	–6.04	–0.03	0.06	0.16	5.05
RD	200415	0.04	0	0	0	0.03	0.96
ROA	373217	–0.16	–12.7	–0.05	0.02	0.06	0.34
SBB	294226	0	0	0	0	0	0.15

Source: IILS estimates based on FactSet Research Systems.

explanatory variables used were as follows: CAPEX, describes the ratio of capital investments; INV, measures inventories; DIV, describes dividend payments; ROA, measures profits; LEV, the total debt; CF, cash flows; and RD, research and development expenditures. The following variables are not expressed as a fraction of total assets: EMP, employees (in thousands); IPOd, a dummy that equals 1 if the firm's IPO took place at most five years ago; MTB, the market-to-book ratio; risk_idio, measures the standard deviation of a firm's Solow-residual net of aggregate effects – the Solow residual is computed with a production-function estimation technique, where total labour and total assets are used as inputs; risk_industry, captures annual means of the idiosyncratic risk within two-digit industries; risk_agg, describes the standard deviation of GDP growth rate by country; std_CF, the standard deviation of a firm's cash flows; and fin_cstr, a dummy that equals 1 if a firm is financially constrained.

Financial constraints

Much of the existing literature on corporate liquidity treats a firm as financially constrained if it is not paying dividends.[40] The rationale is that, because of the limits to external financing, a firm benefits from retaining funds within the firm. Thus, the firm does not pay out dividends. However, a non-dividend paying firm is not necessarily constrained as high-growth firms also tend to pay no or low dividends as long as they have sufficient investment opportunities available. As such, firms for this analysis are considered financially constrained if the dividends (DIV) and the return on assets (ROA) are non-positive.

This quantitative measure of financial constraint discriminates very well between firms in financial distress and unconstrained firms: the variable fin_cstr is significantly correlated with firms' leverage (LEV) and the effective interest rate (EIR). Furthermore, the OLS results emphasize the differences between financially unconstrained and constrained firms. A financially constrained firm exhibits a much higher sensitivity to cash with respect to business risks, cash flows and changes in inventories. This implies that these factors are perceived as substitutes for cash. This constitutes an important robustness check and increases the confidence that the indicator variable is able to capture the presence of financial distress. Furthermore, a non-linear relationship between leverage and the effective interest rate emerges. Higher leverage ratios are generally related to lower interest payments in the data. Only when the leverage ratio (LEV) reaches 95 per cent of total assets do interest rates (EIR) start to increase again, as banks start to regard the high debt-to-equity ratio as problematic and charge higher premiums for the increased probability of default.

Economic risks

The extent of risk affects firms' determinations of the appropriate levels of liquid assets to hold. In particular, higher levels of risk render any forecasts about the future economic environment less precise, and thereby introduce a motive to hold higher precautionary levels of liquidity.[41] Firms also encounter risky environments

40. See, for example, Baum et al. (2006).
41. See, for example, Bloom et al. (2007) and Bloom (2009).

Table 4A.3 Regression Results

	World	Advanced economies	Emerging and developing economies
CAPEX	–0.3322***	–0.3812***	–0.2388***
	(0.0100)	(0.0126)	(0.0138)
INV	–0.2405***	–0.2559***	–0.1841***
	(0.0060)	(0.0073)	(0.0088)
DIV	0.1176***	–0.0154	0.3672***
	(0.0338)	(0.0452)	(0.0473)
ROA	0.0013	0.0048	0.0547***
	(0.0037)	(0.0039)	(0.0145)
fin_cstr	0.0063**	0.0144***	–0.0210***
	(0.0020)	(0.0023)	(0.0031)
fin_cstr_c~s	–0.0135***	–0.0150***	0.0091*
	(0.0028)	(0.0032)	(0.0041)
LEV	–0.2879***	–0.3082***	–0.1978***
	(0.0043)	(0.0051)	(0.0069)
CF	–0.0087*	–0.0096*	0.0039
	(0.0041)	(0.0045)	(0.0098)
std_CF	0.0934***	0.1067***	–0.0098
	(0.0144)	(0.0161)	(0.0262)
MTB	0.0035***	0.0035***	0.0029***
	(0.0002)	(0.0003)	(0.0004)
risk_idio	0.0409***	0.0406***	0.0281***
	(0.0034)	(0.0039)	(0.0056)
risk_indus~y	0.0035	0.0138	–0.0358***
	(0.0062)	(0.0074)	(0.0096)
risk_agg	0.0017	0.0099***	–0.0065***
	(0.0009)	(0.0013)	(0.0012)
RD2	0.0403***	0.0312***	0.0761***
	(0.0020)	(0.0023)	(0.0037)
RD3	0.1392***	0.1327***	0.1572***
	(0.0045)	(0.0048)	(0.0108)
RD4	0.2405***	0.2335***	0.1678***
	(0.0076)	(0.0078)	(0.0226)
IPOd	0.0416***	0.0366***	0.0536***
	(0.0019)	(0.0022)	(0.0036)
EMP	–0.0003***	–0.0003***	–0.0002***
	(0.0000)	(0.0000)	(0.0000)
GDPg	0.0023***	0.0007	0.0023***
	(0.0002)	(0.0004)	(0.0003)
Constant	0.1837***	0.1885***	0.2297***
	(0.0079)	(0.0095)	(0.0121)
Observations	142684	111627	31057
R^2	0.3751	0.3905	0.3241

Notes: Standard errors in parentheses. Significance levels: * at 5 per cent; ** at 1 per cent; *** at 0.1 per cent.

Source: IILS estimates based on FactSet Research Systems.

at the company level, the industry level and the macroeconomic level. Firm-specific risks might include unpredictable variations in cash flows and productivity levels. At the industry level, the industry in which a firm is operating might be undergoing a transformation or be characterized by important dynamics that make profitability measures highly volatile. Finally, at the macroeconomic level, there may be uncertainty about consumer demand, GDP growth and the political environment.

Other factors

In addition to economic uncertainty and financial constraints, three other main factors were identified, namely: (i) future growth opportunities, (ii) postponed investment and (iii) institutional factors. Future growth opportunities are measured via a firm's market-to-book ratio and its research and development expenditures. Higher values in both cases indicate better expected future growth opportunities. Postponed investment is measured through the OLS coefficient of capital expenditures (as higher capital expenditures are associated with lower cash holdings). Institutional factors measures the effect of dividends on cash holdings.

Econometric model

The methodology involved using several different types of panel models. The following discussion of results refers to the specification of the baseline setup (pooled OLS). Table 4A.3 shows the results of the baseline regression with liquidity (CASHEQ) as the dependent variable.

Discussion of results

The model shows that there is indeed a direct link between the observed increase in the cash holdings of firms and the decline in real investment. The principal reason for holding cash is attributed to existing financial constraints. In fact, financial constraints account for 42 per cent of the variation in cash holdings (figure 4A.1).[42] In this respect, the increase of liquidity is largely driven by underlying financial constraints which in turn depress investment. In fact, financially constrained firms are investing only half as much of their assets as unconstrained firms. In addition, financially constrained firms pay a significantly higher interest rate on their debt (7.6 per cent) than non-constrained firms (5.3 per cent) and are unable to take on as much debt.[43] Moreover, the results indicate that firm size and financial constraints are correlated: the smaller a firm is, the more likely it is to face financial constraints. Financial constraints are also more important in explaining the variation in cash holdings among the group of advanced firms.

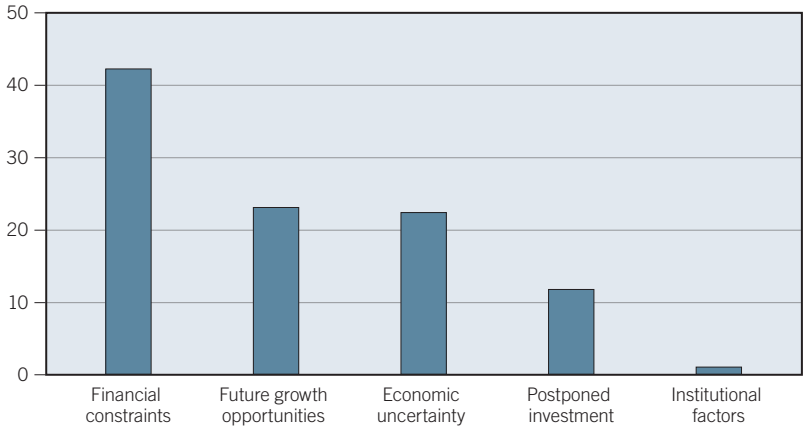
The presence of financial constraints has also slowed employment growth, especially in recent years, as discussed in section C. While it is not surprising that the average growth in employment is higher among financially unconstrained firms than among constrained firms, employment growth among the former has recovered considerably, whereas among the latter it has continued to be negative since the economic crisis.

---

42. As discussed above, financially constrained firms are those that do not pay dividends and have a negative return on assets at the same time.

43. Financially unconstrained firms have a larger leverage ratio (19.3 per cent) than constrained firms (13.7 per cent), as measured by debt to total assets. This constitutes an important robustness check and increases the confidence that the indicator variable is able to capture the presence of financial distress well. Furthermore, a non-linear relationship between leverage and the effective interest rate emerges in this setting.

Figure 4A.1 Determinants of cash holdings among publicly listed firms (percentages)



Note: The chart shows the main factors that explain the variation in firms' cash holdings as measured by the regression model.

Source: IILS estimates based on FactSet Research Systems.

Uncertainty about the economic environment also leads firms to hold cash as a buffer against unforeseen events. In economic terms, uncertainty[44] about the economic environment leads to volatility in future income streams for enterprises and can therefore trigger cash hoarding, inert investment activity and a hesitation to hire new employees. In this context, economic uncertainty accounts for close to 22 per cent of the change in cash holdings. Moreover, a breakdown of company investment activity into risk quantiles shows that companies that face high uncertainty reduce investment and hoard cash instead.

Such economic uncertainty for enterprises can emerge from a number of sources. First, there might be volatility in the macroeconomy, which will have potential negative impacts on all firms in a country. Examples of such macroeconomic risks include current or potential shortfalls in aggregate demand, failure of the financial system or the collapse of a currency. Second, certain industries (sectors) are more prone to uncertainty than others. For example, firms in the extractive industries on average face higher fluctuations in incomes than firms producing consumer goods. Third, uncertainty can emerge at the enterprise level and refer to a firm's operational risk[45] or other firm specific determinants.

The model accounts for all three layers of economic risk. Macroeconomic uncertainty is identified through the fluctuation of a country's aggregate demand (GDP). Firm- and sector-specific risks are measured through volatility of total factor productivity at the firm and industry levels, respectively.[46]

44. The terms "uncertainty" and "risk" are used interchangeably in this chapter. Often a distinction is made between the two terms by specifying "risk" as those uncertain events to which a probability distribution can be assigned.
45. See Basel II Definition.
46. Overall volatility of firms' cash flows measures overall risks without further decomposition.

Appendix B

Indicators of progress with respect to financial reform[47]

In terms of financial sector reforms, momentum seems to be picking up in early 2013. Yet, in some of the most important areas such as risk-based capital requirements, reforms will not be completely phased in until 2019 – ten years after the crisis. In addition to the areas of reform discussed in section B, the following are also worth noting (see table 4B.1):

- *Provision for a systemic risk regulator*: Of the 30 countries with available information, only 10 have put in place provisions for a systemic risk regulator.
- *Changes in micro and macro prudential regulation*: Most countries – 24 out of 30 – have put in place provisions for a micro and macro prudential regulation. Meanwhile, 6 countries have failed to make changes in this area (Brazil, Republic of Korea, Mexico, the Russian Federation, Saudi Arabia, and South Africa).
- *Regulation of shadow banking*: Of the 30 countries, only one – India – has enforced regulation with tangible outcomes. India supervises and regulates non-bank financial institutions through its central bank and it reinforced this authority post-crisis. Calls for change have been stifled by international leaders. At the EU level, the Directive on Alternative Investment Fund Managers, which was adopted in 2011 and is currently being implemented by EU Member States, subjects hedge fund managers, among others, to mandatory reporting requirements. In the United States, the Dodd-Frank Act gives regulators authority, but does not explicate regulatory measures.
- *Changes in capital adequacy rules*: Of the 30 countries, 19 have not implemented legislation that changes capital adequacy requirements. Argentina, Brazil, the European Union, Indonesia, Republic of Korea, the Russian Federation and the United States have not yet issued final rules for Basel-III, which were supposed to have been implemented on 1 January 2013. As of April 2013, Turkey had not issued draft legislation.
- *Regulation of credit rating agencies (CRAs)*: Of the 30 countries, only three have not passed legislation (Mexico, Saudi Arabia and South Africa) to regulate CRAs. Although the European Union passed legislation that requires CRAs to register, comply with a code of conduct and undergo supervision, the proposal that would actually reduce reliance on CRAs (the Capital Requirements Directive IV) is still being debated.

47. Appendix B has been prepared by Kristina Deighan under the supervision of Sameer Khatiwada.

Table 4B.1 Current state of financial sector reforms

	Regulation			Limits on Risk Taking			Compensation[1]	
	Provision for systemic risk regulator	Changes in micro and macro prudential regulation	Regulation of shadow banking	Changes in capital adequacy rules	Regulation of rating agencies	Breaking up of banks	Limits on executive compensation[2]	Regulation of bonus pay
Argentina	✗	✗			✗			
Australia	✗	✗		✗	✗			
Austria		✗						
Belgium		✗					✗	✗
Brazil	✗				✗			
Canada		✗			✗			
China	✗	✗		✗	✗			
Denmark		✗					✗	✗
Finland		✗						
France	✗	✗						
Germany		✗						
Greece		✗						
India	✗	✗	✗	✗	✗			✗
Indonesia		✗						
Ireland		✗						
Italy		✗						
Japan	✗	✗		✗	✗			
Republic of Korea				✗	✗			
Mexico	✗			✗				
Netherlands		✗						
Portugal		✗		✗				
Russian Federation					✗			
Saudi Arabia				✗				
South Africa				✗				
Spain		✗		✗				
Sweden		✗						
Switzerland	✗	✗		✗	✗		✗[3]	✗
Turkey	✗				✗			
United Kingdom		✗				✗		
United States		✗			✗	✗		

[1] Reforms were not included if they concerned only state-owned companies or bank bail-outs. Limits regarding executive compensation introduced before 2009 were also not considered for this table. [2] This includes absolute and relative limits as well as binding share-holder votes on executive compensation. [3] The information regarding Switzerland refers to legislation that was required by a citizens' initiated referendum and which had not yet entered into force at the time of writing.

✗ = legislation in effect. White boxes = no legislation.

Source: IILS based on national sources.

References

Arcand, J. L.; Berkes, E.; Panizza, U. 2012. "Too Much Finance?" International Monetary Fund (IMF), Working Paper, WP/12/161.

Bates, T.; Kahle, K.; Stultz, R. 2009. "Why do U.S. firms hold so much more cash than they used to?", in *The Journal of Finance*, Vol. 64, No. 5, pp. 1985–2921.

Baum, C.F.; Caglayan, M.; Ozkan, N.; Talavera, O. 2006. "The impact of macroeconomic uncertainty on non-financial firms' demand for liquidity", in *Review of Financial Economics*, Vol. 15, No. 4, pp. 289–304.

Bebchuk, L.; Fried, J. 2010. "Paying for long-term performance", in *University of Pennsylvania Law Review*, Vol. 158, pp. 1915–1959.

Beck, T.; Chen, T.; Lin, C.; and Song, F. M. 2012. "Financial Innovation: The Bright and the Dark Sides", HKIMR Working Paper 05/2012.

Beck, Thorsten & Klapper, Leora F. & Mendoza, Juan Carlos, 2010. "The typology of partial credit guarantee funds around the world," Journal of Financial Stability, Elsevier, vol. 6(1), pages 10-25, April.

Bhagat, S.; Romano, R. 2009. *Reforming executive compensation: Focusing and committing to the long-term*, Yale Law and Economics Research Paper No. 374. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1336978&download=yes## [15 Apr. 2013].

Bloom, N. 2009. "The impact of uncertainty shocks", in *Econometrica*, Vol. 77, No. 3, pp. 623–685.

—; Bond, S.; Van Reenen, J. 2007. "Uncertainty and investment dynamics", in *Review of Economic Studies*, Vol. 74, No. 2, pp. 391–415.

Board of Governors of the Federal Reserve System. 2012. *Report to the Congress on the availability of credit to small businesses* (Washington, DC).

BP plc. 2013. "Directors' remuneration's report" in *Corporate Governance: BP Annual Report and form 20-F 2012*, pp. 127–146. Available at: http://www.bp.com/assets/bp_internet/globalbp/globalbp_uk_english/set_branch/STAGING/common_assets/bpin2012/downloads/directors_remuneration_report_2012.pdf [2 May 2013].

Bryois, F.; Couasnon, P.; Wigersma, D. 2013. *Minder initiative: Potential implications* (Geneva, Deloitte).

Chang, S.; Contessi, S.; Francis, J. 2011. "Excess reserves during the U.S. financial crisis: A bank-level perspective", in manuscript, Jun.

Danone. 2011. *Sustainability Report. Strategy and Performance* (Paris, Danone). Available at: http://media.corporate-ir.net/media_files/IROL/95/95168/Danone_Sustainability_Report_2011.pdf [15 Apr. 2013].

DeAngelo, H.; DeAngelo. L.; Stulz, R. 2006. "Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory", in *Journal of Financial Economics*, Vol. 81, No. 2, pp. 227–254.

Deckop, J.R.; Merriman, K.K.; Gupta, S. 2006. "The effects of CEO pay structure on corporate social performance", in *Journal of Management*, Vol. 32, No. 3, pp. 329–342.

Eccles, R.G.; Ioannou, I.; Serafeim, G. 2011. *The impact of a corporate culture of sustainability on corporate behavior and performance*, Harvard Business School Working Paper No. 12-035. Available at: http://www.hbs.edu/faculty/Publication%20Files/12-035.pdf [15 Apr. 2013].

Ennis, H.; Wolman, A. 2012. *Large excess reserves in the U.S.: A view from the cross-section of banks*, Working Paper No. 12-05 (Richard, VA, Federal Reserve Bank of Richmond).

Ethics Resource Center (ERC). 2010. *Ethical leadership and executive compensation: Rewarding integrity in the C-suite*, ERC Fellows Program White Paper (Arlington, VA). Available at: http://cbe.bentley.edu/sites/cbe.bentley.edu/files/images/ethical-leadership.pdf [15 Apr. 2013].

European Commission. 2009. *Recommendation as regards the regime for the remuneration of directors of listed companies 2009/3177*, 30 April (Brussels).

European Parliament. 2010. *Resolution on remuneration of directors of listed companies and remuneration policies in the financial services sector*, 7 July (Brussels).

European Social Investment Forum (Eurosif). 2010. *Remuneration Theme Report* (Brussels). Available at: http://www.eiris.org/files/research%20publications/remunerationjan10.pdf [15 Apr. 2013].
Frydman, C.; Jenter, D. 2010. *CEO compensation,* NBER Working Paper No. 16585 (Cambridge, MA, National Bureau of Economic Research). Available at: http://www.nber.org/papers/w16585 [11 Apr. 2013].
G20 Summit. 2009. *G20 Pittsburgh summit, Leaders' statement*. Available at: http://ec.europa.eu/commission_2010-2014/president/pdf/statement_20090826_en_2.pdf [15 Apr. 2013].
House of Representatives. 2011. *Corporations Amendment (Improving Accountability on Director and Executive Remuneration) Bill 2011, Explanatory memorandum* (Canberra). Available at: http://www.comlaw.gov.au/Details/C2011B00020/Explanatory%20Memorandum/Text [3 May 2013].
International Labour Organization (ILO). 2008. *World of Work Report 2008: Income inequalities in the age of financial globalization* (Geneva, International Institute for Labour Studies (IILS)).
—. 2010. *World of Work Report 2010: From one crisis to the next?* (Geneva, IILS).
—. 2011. *World of Work Report 2011: Making markets work for jobs* (Geneva, IILS).
—. 2012. *World of Work Report 2012: Better jobs for a better economy* (Geneva, IILS).
Jensen, M.C. 1986. "Agency costs of free cash flow, corporate finance, and takeovers," in *American Economic Review*, Vol. 76, No. 2, pp. 323–329.
Miller, M.H.; Rock, K. 1985. "Dividend policy under asymmetric information", in *The Journal of Finance*, Vol. 40, No. 4, pp. 1031–1051.
McGuire, J.; Dow, S.; Argheyd, K. 2003. "CEO incentives and corporate social performance", in *Journal of Business Ethics*, Vol. 45, No. 4, pp. 341–359.
Organisation for Economic Co-operation and Development (OECD). 2011. *Board practices. Incentives and governing risks*, Corporate Governance (Paris). Available at: http://dx.doi.org/10.1787/9789264113534-en [3 May 2013].
Pinkowitz, L.; Stulz, R.; Williamson, R. 2012. *Multinationals and the high cash holdings puzzle*, NBER Working Paper, No. 18120 (Cambridge, MA, National Bureau of Economic Research).
Posner, R. 2009. "Are American CEOs overpaid, and, if so, what if anything should be done about it?", in *Duke Law Journal*, Vol. 58, pp. 1013–1047.
Prosser, T. 2009. *Executive compensation and the economic crisis*, paper presented at the conference "Negotiating out of the crisis" (25–27 November 2009), organized by the International Training Centre of the ILO. Available at: http://forum2009.itcilo.org/en/thematical-papers/executive-compensation-and-the-economic-crisis.
Sanchez, J.M.; Yurdagul, E. 2013. "Why are corporations holding so much cash?", in *The Regional Economist* (St. Louis, MO, Federal Reserve Bank of St. Louis).
Sappideen, R. 2011. "Focusing on corporate short-termism", in *Singapore Journal of Legal Studies*, Dec. 2011, pp. 412–431.
Servaes, H.; Tufano, P. 2006. *The theory and practice of corporate dividend and share repurchase policy*, Research Paper, Feb. 2006 (London, Deutsche Bank).
SolarWorld. 2011. *Remuneration Report* (Bonn). Available at: http://www.solarworld.de/en/investor-relations/corporate-governance/remuneration-report/ [2 May 2013].
Vitols, S. 2010. *Unternehmensmitbestimmung und Vorstandsvergütung in europäischen bör-sennotierten Großunternehmen* [*Executive compensation and corporate participation in listed European corporations: Summary of a study*] (Berlin, Hans Böckler Foundation). Available at: http://www.boeckler.de/pdf_fof/S-2009-215-2-2.pdf [11 Apr. 2013].
Volkswagen Aktiengesellschaft. 2011. *Sustainability Report 2011* (Versmold). Available at: http://www.volkswagenag.com/content/vwcorp/info_center/en/publications/2012/04/SR_2011.bin.html/binarystorageitem/file/VWAG_NHB_2011_e_web_neu.pdf [2 May 2013].
Whole Foods Market, Inc. 2011. *2010 Annual Report*. Available at: http://www.wholefoodsmarket.com/sites/default/files/media/Global/Company%20Info/PDFs/ar10.pdf [3 May 2013].

How to shift to a more equitable and job-friendly economic path

5

Main findings

- This Chapter shows how an approach that balances macroeconomic and employment goals, while at the same time taking social impacts into account, can help to address the challenges identified in earlier chapters. Moving towards such an approach requires attention to be paid to a number of policy areas, including macroeconomic, labour market and social protection policies. This Chapter highlights a wide range of recent initiatives in these areas.
- First, a job-centred approach will require the fiscal and structural policies of countries to be addressed, including the pace of fiscal consolidation measures and the still unresolved financial sector imbalances (Chapter 4). Establishing a balance between employment and other macroeconomic objectives will be necessary in order to achieve an inclusive recovery. This Chapter discusses recent experiences in Asia, Latin America and selected advanced economies that have made an effort to achieve this kind of rebalancing.
- Second, well-designed labour market and social protection policies can serve both to realize social goals and to contribute to aggregate demand. These policy areas have seen important innovation and experimentation in recent years and provide lessons that would reward wider study.
- Third, there is a need to build a stronger consensus on job creation and sustainable growth and thus to overcome barriers to such a policy shift where it is needed. These barriers include: a failure to recognize the fact that employment and social issues ought to be put near the top of the reform agenda; distributional issues; entrenched beliefs that government intervention will negatively affect competitiveness and economic growth; and insufficient international coordination, which is especially important in areas such as taxation and at times of weak global aggregate demand.

- The role of the ILO in addressing these issues is discussed. Expert advice and monitoring of job-friendly policies would both benefit individual countries and contribute to better international coordination. In addition, mobilizing and reinforcing social dialogue in countries can be instrumental in creating a constituency for change and steering countries towards more job-friendly approaches.

Introduction

As discussed in Chapters 1 and 2, many countries have yet to recover from the loss of jobs and income caused by the global financial crisis. Even in those countries that have enjoyed a relatively positive labour market performance, the quality of the jobs that have been created and the distribution of the benefits of growth remain a matter of concern. Therefore job creation and issues of income distribution remain major challenges in most countries.

This Chapter reviews the role played by macroeconomic strategies in the recovery of labour markets and argues for a shift to adopting strategies that give more weight to job creation and more equitable growth.

Section A begins by discussing the move in policy-making towards fiscal consolidation. It explains the nature and extent of consolidation measures, especially in Europe, briefly reviewing the impact on employment in countries that have implemented such polices and the risk of spillover effects from these countries to others. Section B examines the kind of job-friendly measures that can be put in place as part of a coherent macroeconomic and employment strategy. Finally, Section C sheds light on possible obstacles to a shift to a job-friendly strategy and discusses how these obstacles might be overcome, including the role of the ILO in this respect.

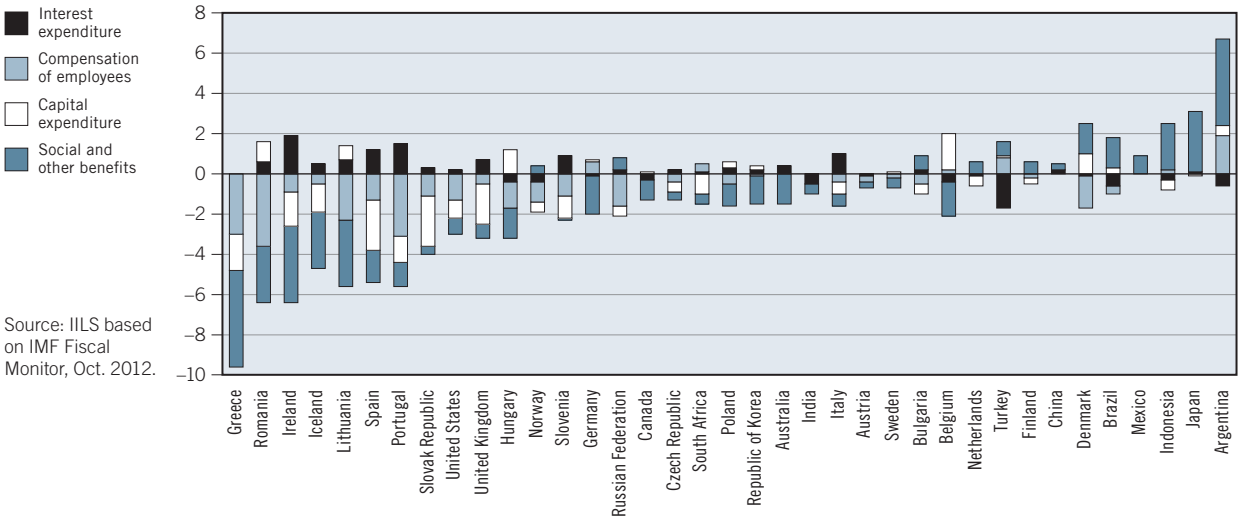
A. Challenges associated with the current macroeconomic stance

Fiscal consolidation and structural labour market reforms have become the dominant responses to the ongoing crisis in a number of advanced economies …

Since 2010, the policy priority in many advanced economies has shifted towards cutting fiscal deficits and promoting external competitiveness. Following the rise in public deficits during the recession, which reached a peak in 2009, the majority of the advanced countries with available information[1] had adopted fiscal consolidation measures by the third quarter of 2011.[2] On the expenditure side, government spending as a percentage of GDP decreased by 1.4 percentage points between the third quarters of 2009 and 2011, driven by cuts in public payrolls, public investment and social spending (figure 5.1). During the same period, government

1. This finding arises from an analysis of 28 advanced economies with up-to-date quarterly national accounts (ILO, 2012).
2. See Chapter 2 of the *World of Work Report 2012: Better jobs for a better economy* (ILO, 2012b).

Figure 5.1 Change in selected government expenditure items between 2009 and 2012 (in percentage points of GDP)



Source: IILS based on IMF Fiscal Monitor, Oct. 2012.

revenues as a percentage of GDP increased by 1.2 percentage points, reflecting increased tax revenues, notably in the form of heavier indirect taxation. A number of Central and Eastern European countries also adopted fiscal consolidation measures, driven mainly by cuts in social benefits and public-sector wages as well as an increase in indirect taxation.

In another shift of policy emphasis, a number of governments have embarked on a process of structural labour market reforms, based on the view that lighter labour market regulation would be a "costless" way to create jobs (ILO, 2012). Recent evidence indicates a gathering momentum in reforms which relax employment protection regulations and decentralize collective bargaining.[3] The hope was that these fiscal consolidation and structural reform measures – while associated with some short-term costs – would help to cut government deficits, arrest the trend increases in government debt and boost business confidence, leading to greater investment and job creation (Alesina, 2010).

… with negative impacts on recovery in many cases …

The actual outcomes have fallen far short of expectations, notably with respect to employment (Chapter 1). Indeed, fiscal consolidation has been associated with a deterioration of the labour market situation. Also, as shown in Chapter 4, productive investment has not recovered in most advanced economies, especially those with the strongest focus on fiscal consolidation.

The direct goals of fiscal consolidation – reduced government deficits and debt – have also not been achieved in many cases. For example, the median fiscal deficit in the EU-27 countries remained at 4 per cent of GDP at the end of 2012, with a number of countries (i.e. Greece, Ireland and Spain) still facing deficits of between 7 and 11 per cent of GDP. The median fiscal deficit in advanced economies

3. For example, between 2008 and March 2012, 40 countries out of 131 altered their employment protection regulations for permanent employees, mainly by modifying the regulation of severance payments and notice periods. A total of 60 per cent of these reforms have relaxed employment protection regulations for permanent employees. This trend is particularly noticeable among developed economies, where 76 per cent of the reforms have relaxed employment protection regulations for permanent employees (Cazes et al., 2012).

also remains high – at 6.8 per cent for G7 countries in 2012 and 5.5 per cent for the OECD area as a whole. In a number of countries, the efforts to consolidate have also failed to stabilize public debt (for example, Greece will only attain a debt-stabilizing primary balance[4] in 10 years and Japan in 12 years).

… and spillovers to the global economy and emerging and developing countries.

In light of slow growth or actual contraction in many advanced economies, a number of emerging and developing countries have decided to pursue a strategy of boosting domestic demand in order to compensate for weak export prospects. In countries such as Argentina, Brazil, China, India and South Africa, policies were adopted to increase wages and strengthen social protection systems. Public investment in infrastructure and public employment programmes has also been introduced or reinforced. Regional integration has contributed to growth in several regions as well.

Nevertheless, even in these countries, labour markets and productive investment in the real economy are not immune to the effects of the weakening global economy. Growth forecasts have been revised downwards for many developing and emerging economies, while labour markets have failed to keep up with population growth in some cases and the incidence of vulnerable employment has risen in many such countries (see Chapter 1). Meanwhile, some emerging and developing economies have also struggled to manage liquidity problems arising from both internal and external factors. Internally, many countries are constrained by the volatility of their public revenue and relatively weak fiscal institutions. On the external side, countries are confronted by an unpredictable evolution of interest rates on public debt, given the volatility of the financial markets worldwide. Volatile capital flows have aggravated instability in the real economies of some countries, with negative impacts on the quantity and quality of jobs,[5] placing additional pressure on the stability of their fiscal balances.[6]

---

4. Debt-stabilization primary balances (sp) are calculated as follows: $sp_t = d_{t-1} \times \frac{r-n}{n+1}$ (Martner and Tromben, 2004). See Escudero and López (2013, forthcoming) for a more comprehensive analysis of debt dynamics during times of crisis.

5. See Chapter 4 of the *World of Work 2012: Better jobs for a better economy* (ILO, 2012b).

6. Indeed, studies that use a more flexible approach to assessing debt sustainability in emerging and developing economies have found that these external factors have been the main determinant behind the increase in public debt in emerging markets since the mid-1990s, explaining as much as 70 per cent of the increase. See Martner and Tromben (2004) for an analysis of public debt sustainability in Latin America.

B. Moving towards a more job-friendly and equitable approach

There is growing awareness of the risks associated with an excessive focus on short-term fiscal consolidation. Moreover, recent experience shows that it is possible to combine prudent macroeconomic policies with employment and income goals. This section examines how this can be achieved.

A more job-friendly approach begins with macroeconomic policies, ...

As shown by the experience of some countries during past financial and economic crises, such as Argentina and Sweden, well-designed and coordinated macroeconomic, employment and social policies can have mutually reinforcing effects. In Argentina, for example, carefully targeted social and employment measures – combined with effective macroeconomic policies – were important factors behind the strong recovery from the severe crisis of 2001–02. Sweden, likewise, successfully overcame the financial crisis of the 1990s through the employment of a coherent policy package (box 5.1).

In general, a job-centred macroeconomic strategy would include more emphasis on the employment impacts of monetary, fiscal and structural reform measures. It would require careful consideration of the path and content of fiscal consolidation measures. Greater attention would be paid to domestic demand and, in particular, to household incomes, as studies show that fiscal consolidation could worsen income inequality;[7] and a commitment to addressing concerns about competitiveness in a manner which supports aggregate demand, investment and jobs. Recent examples of successful approaches are shown in box 5.2.

To explore the impact of a more job-friendly policy mix, a simulation examining the employment and growth impacts of three scenarios has been carried out using the Global Economic Linkages model.[8] A baseline is established, based on current IMF projections. A scenario of further fiscal consolidation is then examined. Finally, a combination of measures, including expanded public investment coupled with measures to rebalance the share of labour incomes in total income, is explored.[9] The results are presented in table 5.1.

Table 5.1 Simulated effects of job-friendly policies, 2014

	GDP growth (%)	Employment rate (%)
Baseline scenario	2.2	54.9
Further fiscal consolidation	1.1	54.5
Job-friendly approach	3.6	55.6

Note: The GDP growth baseline scenario corresponds to the latest IMF *World Economic Outlook* projections for 2014 and the employment rate calculations in Chapter 1 of this volume. The fiscal consolidation scenario assumes a further cut in government investment, totalling 1 per cent of the GDP for advanced economies. The job-centred approach combines expanded government investment and labour incomes growing in line with productivity.

Source: IILS simulations based on the Global Economic Linkages model.

7. See IMF Fiscal Monitor, October 2012.
8. In contrast to purely empirical models, the relationships between macroeconomic variables in the Global Economic Linkages model are derived from theoretical economic relationships and then calibrated to match an actual economy (see Torres et al., 2013).
9. More specifically, a 1 percentage point increase in the ratio of infrastructure investment to GDP and a 1.8 percentage point increase in the share of labour income in total income in the euro area countries would decrease unemployment rates to 9.9 per cent – rather than 11.5 per cent in the baseline scenario. For more details on these simulations, please refer to ILO, 2012c, pp. 40–41.

Box 5.1 Job-centred approach in times of crisis: Experiences of Argentina and Sweden

Argentina's response during the 2001–02 crisis: In response to the crisis which erupted in 2001, Argentina decided to break from the previous macroeconomic and structural reform policy mix. Instead, it adopted a set of measures which made employment and poverty reduction the core policy objectives. In particular, a programme to help jobless households was launched in May 2002 (Plan Jefes y Jefas de Hogar Desocupados), the system of minimum and adjustable wages, which had been abolished in the 1990s, was reinstated and labour market institutions, such as labour inspection and collective bargaining, were strengthened.

Between 2002 and the advent of the global crisis in 2008, employment grew strongly, the incidence of informal employment declined and poverty rates were cut. Following a short hiatus at the height of the crisis, employment growth and poverty reduction have regained their momentum (ILO, 2011b).

A number of factors contributed to Argentina's recovery after 2002, including improved competitiveness resulting from the devaluation of the peso and a significant improvement in the price of exports of agricultural products and natural resources. However, the carefully targeted social and employment measures contributed significantly to the positive results in employment and poverty reduction.

Sweden's response during the financial crisis of the 1990s: The situation faced by Sweden in the early 1990s was similar to the current crisis in many respects, triggered as it was by the bursting of a real estate bubble, which had been fed by deregulation in the financial markets, a deterioration in banks' balance sheets and a dramatic fall in economic activity. Sweden experienced a severe recession, with GDP decreasing by about 5 per cent, the employment rate falling by almost 10 per cent and unemployment increasing fivefold (see Freeman et al., 2010).

As a first step, the Government reacted quickly to restore confidence in the Swedish financial sector by issuing an unlimited guarantee that no depositors or other counterparts to Swedish financial institutions would suffer any loss and by consolidating financial institutions. This measure had the effect of reassuring private depositors while re-establishing credit lines with foreign banks. A common framework of measures was developed for rescuing financial institutions with the aim of avoiding an excessive burden on government expenditures. Banks demanding public support had an obligation to provide full disclosure of their financial positions. This allowed banks' medium-term profitability to be tested so that financial support was offered only to those institutions that were assessed as being worth rescuing. In addition, shareholders were not covered by the Government guarantee and were exposed to the same degree of capital loss risk as the Government. These measures limited the risk of moral hazard by reducing the incentives for banks to request financial support from the Government and made the cost of the financial sector's bailout more acceptable to the public.

Second, fiscal policy was accommodating. The Government allowed fiscal deficits to develop during the crisis in order to avoid a contraction of the national welfare system that would have exacerbated the impact of the crisis on living standards and domestic demand. Employment programmes were developed and a renewed emphasis was placed on active labour market policies to reduce the risk of long-term unemployment and labour market exclusion. This included the creation of a youth employment guarantee; a policy that is now being considered in the European Union.

Third, social dialogue was maintained. The coordination of wage bargaining continued at the national level. Social partners agreed to wage increases in line with the need for international competitiveness in the manufacturing industry. Finally, the Swedish currency depreciated, which also supported recovery. Exports as a share of GDP doubled between 1992 and 2008.

The result was a relatively quick economic and employment recovery from the financial crisis, at a relatively modest cost to the public purse. Some estimates put the final costs of financial rescue measures at 3 per cent of GDP, instead of the 4–5 per cent that was originally feared (Jonung, 2009).

Box 5.2 Macroeconomic policies aimed at fostering employment creation

In the **United States**, with inflation running below the Government objective of 2 per cent and unemployment far above its frictional level, the long-standing employment goal of US monetary policy has been reinforced. As part of this approach, in December 2012 the Federal Open Market Committee (FOMC) revamped its forward guidance for the federal funds rate, explicitly linking it to quantitative measures of economic and labour market performance. More specifically, the FOMC stated that interest rates would be held at exceptionally low levels as long as the following conditions were met: the unemployment rate should remain above 6.5 per cent; projected inflation for the following 1 or 2 years should remain at no more than 0.5 percentage points above the 2 per cent objective; and longer term inflation expectations continued to be well anchored. This clarifies the intentions of the FOMC to keep monetary policies highly accommodative until the recovery of the labour market takes a strong hold. This policy is intended to boost predictability and confidence, spurring faster recovery (Federal Reserve, 2013).

Although not yet implemented, the Government of **Japan** is calling for the Bank of Japan to add job growth to its mandate, as did the US Federal Reserve. Meanwhile, in an effort to revive the economy and create employment, the Government approved US$117 billion of spending on public works, incentives for corporate investment and financial aid for small firms. Moreover, government officials have called on employers and trade unions to raise wages in order to combat deflation.

… requires an evidence–based approach to structural reforms to avoid adverse macroeconomic and social effects …

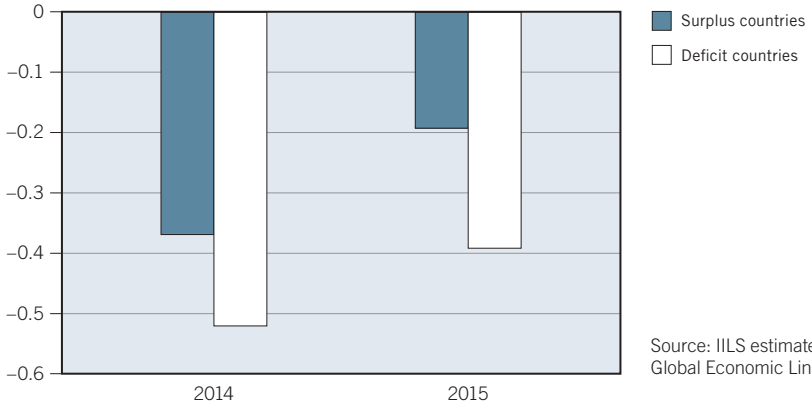
The emphasis on labour market reforms that have the effect of reducing wages and incomes also requires careful attention. A number of countries have adopted policies that reduce wages (for example, by cutting minimum wage levels or weakening collective bargaining institutions). While lower wages may increase external competitiveness, they also reduce domestic consumption. In many countries, particularly those with fairly large internal markets, the gain in export share may be more than offset by the decline in domestic demand, leading to economic contraction rather than growth. Furthermore, if countries that are enjoying a more benign economic performance (for example, thanks to a healthy export performance and current account surplus) were to increase real wages, this could prove beneficial to all countries. A simulation carried out for the euro area countries has shown that during the current economic crisis an increase in real wages in current-account surplus countries[10] would have favourable employment effects on all euro area economies (figure 5.2).[11]

… and includes support for public and private investment.

To encourage productive investment by private firms, governments could consider introducing accelerated depreciation on existing assets, which in essence lowers the cost of acquiring new assets and replacing older equipment. Other initiatives include tax credits and exempting firms from paying taxes on newly invested fixed assets. Beyond these economy-wide measures to stimulate private

10. Austria, Belgium, Finland, France, Germany, Luxembourg and the Netherlands.
11. More specifically, a 1 per cent increase in real wages in surplus countries in 2014 would decrease the unemployment rate of these countries by 0.37 percentage points and that of deficit countries by 0.52 percentage points in the same year.

Figure 5.2 Net effect on Eurozone unemployment rates of a 1 per cent increase in real wages in surplus Eurozone countries, 2014 and 2015 (percentage points)



Source: IILS estimates based on Global Economic Linkages model.

investment, a number of targeted measures could encourage specific desirable forms of investment:

- *Public investment for innovation*: Governments can stimulate investment activity by funding or co-funding research and development and new technology infrastructure to stimulate growth in new, more productive or high value-added sectors. Moreover, public investment can crowd in private investment, especially where there is an initial need to invest in basic infrastructure. Promoting investment in high value-added and technology-intensive sectors can benefit from the development of industrial policies. Measures of this nature could also include renewable sources of energy and green growth initiatives.
- *Investment in and extension of credit to small and medium-sized enterprises (SMEs)*: Promoting the creation and sustainability of SMEs is essential for job-rich growth due to their large presence in economies of all types. Access to credit for SMEs to maintain operations as well as to invest remains a challenge, especially in the light of malfunctioning financial markets. There are number of measures that governments, even those constrained by public finances, could consider to support investment in SMEs, including: (i) supporting the creation and development of credit mediators to reassess SMEs' credit requests that have been rejected by banks; (ii) introducing credit guarantees for viable SMEs, in which a percentage of the loan is backed by government support; and (iii) directly earmarking a portion of bank recapitalization funds for the provision of SME credit (see Chapter 4).

Measures that support equity and social cohesion can also help to boost demand ...

Virtually all economies rely on domestic consumer demand for a significant share of their overall GDP and in larger or more developed economies consumption is by far the largest share. Therefore attention to employment, wages and other sources of household income is a critical part of a sound macroeconomic policy mix. Insufficient attention has been paid to the role of wages and incomes in growth and recovery strategies in certain cases. Among the measures that have been successfully employed by a number of countries, and that should be more widely considered, are the following (see table 5.2 for country examples):

- *Avoiding wage stagnation or deflation traps*: As widely noted, stagnant wage growth contributed to debt-led spending growth and bubbles in a number of countries, contributing to the severity of the global crisis. Restoring sustainable growth will require wage growth in line with productivity. Countries trying to increase their competitiveness through wage cuts can find themselves in a wage moderation trap, in which export growth fails to offset falling domestic demand, producing an overall contraction in aggregate demand and growth. This is currently being observed in some advanced countries, particularly in Europe. A number of countries, particularly emerging economies, have instituted policies of increasing minimum wages and encouraging collective bargaining to raise overall wages and thus stimulate domestic consumption. Minimum wages can serve as a social floor for wage adjustments, to help reduce working poverty and inequality. They can also act as a buffer against wage deflation. During the crisis, roughly half of the world's economies, including Brazil, China, Japan, the Russian Federation, the United Kingdom and the United States, increased minimum wages (ILO, 2011a).
- *Well-designed social protection and income support measures*: Income support through measures such as unemployment benefits and pensions can act as important economic demand stabilizers, helping to limit unemployment. Maintaining, extending or adapting these programmes can provide support to the vulnerable and can have positive multiplier effects on economic growth and employment. In emerging and developing economies, social protection measures, such as employment guarantees and cash transfers, can provide support to vulnerable households to keep them from distress activities, such as selling assets or taking children out of school, and thus can also improve

Table 5.2 Examples of measures aimed to support and balance incomes

Supporting lowest income earners through a basic social protection floor and minimum wages	In **Nicaragua**, the minimum wage has been an effective redistributive tool for lifting poor households out of poverty, particularly when it is the head of the household whose income is supported by the minimum wage. In 2010, **Bolivia** established the National Sectoral Health Plan and the Global Health Initiative Strategy to reduce social exclusion from health services. Thanks to this effort, the estimated average formal health coverage in Bolivia was 66.9 per cent of the population compared to average formal coverage for other "high vulnerability"[a] countries of 46.7 per cent.
Providing income support to jobless individuals	The 2008 Wage Earner Protection Programme (WEPP) of **Canada** provides financial assistance to people who lose their job as a result of employer bankruptcy. It was expanded to provide additional financial assistance and improved economic security to workers during the economic downturn. In 2009, the American Recovery and Reinvestment Act (ARRA) of the **United States** authorized a temporary Federal Additional Compensation (FAC) programme that provided a US$25 supplement to the weekly benefit allowance paid to eligible unemployed recipients.
Social protection measures targeted at specific groups	During the 1997 Asian financial crisis, the Government of **Indonesia** initiated the JPS-BK social safety net programme. With the objective of helping poor families to maintain their health and nutrition, the programme extended basic health and reproductive health services to poor families (ILO, 2011e). **Argentina** created a programme (Asignación Universal por Hijo para Protección Social) that consolidated a number of different social programmes within one major child benefit initiative. It extended child benefits to unregistered workers earning less than the minimum wage, the unemployed, domestic workers and self-employed workers with very low incomes (ILO, 2011a).
Improving the working conditions of workers in informal-sector employment	In 1995, a mutual health scheme called UMASIDA was established in **Tanzania** to minimize the problem of informal economy workers' lack of access to health-care services. The Self Employed Women's Association (SEWA) has addressed the welfare of women in **India** who work informally by establishing initiatives to foster health, income security and empowerment. The organization provides members with health education and preventative health care, such as antenatal care and immunization of children.

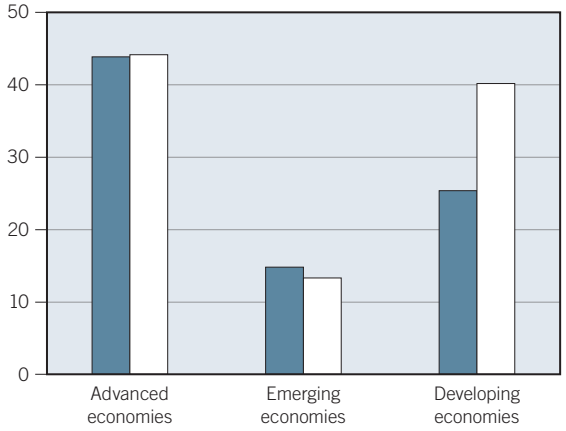
[a] Vulnerability of countries is measured by the poverty rate (proportion of people living under US$2 PPP a day) and the extent of informal employment (ILO, 2011f).

medium-term productivity. Ethiopia, India and South Africa provide positive examples of public employment programmes, while Brazil, Mexico and many other countries have instituted successful cash transfer programmes. These measures have also had measurable effects in reducing inequality and poverty.

- *Providing income support to jobless individuals*: Providing income support for the unemployed was a critical component in limiting the fall in aggregate demand during the crisis. However, the extent of coverage and the level of generosity vary considerably across countries. There are often criteria for access (e.g. minimum number of hours worked) which reduce the number of unemployed who are covered. Unemployment benefit systems are often lacking in emerging and developing counties. In the few countries where they do exist, they are usually restricted to urban areas. As the crisis highlighted these limitations, many countries have chosen to expand unemployment benefits and facilitate benefit access, particularly for groups which are most at risk of unemployment.

  In a survey of 55 countries with available information, 42 per cent of the advanced economies and nearly one-third of the emerging and developing economies extended unemployment benefit coverage or implemented additional social assistance or protection measures during the crisis (figure 5.3). Similarly, over one-quarter introduced partial unemployment benefit schemes coupled with training or part-time work (ILO, 2009b).

Figure 5.3 Proportion of unemployed receiving unemployment benefits*, 2006–07 and 2010–12 (percentages)



* Cash periodic benefits

Notes: The two periods of analysis are: the average share between 2006 and 2008 as the start of the crisis and the average share between 2009 and 2011 (and when available 2012).
The sample analysed comprises 55 countries. Of which 31 are advanced economies, 16 are emerging economies and 8 are developing economies.
Country group averages correspond to weighted averages based on 2011 purchasing power parity (PPP) GDP weights.

Source: IILS calculations based on the Social Security Report (ILO, 2009b).

- *Extending social safety nets to the informal sector*: Workers and micro-entrepreneurs in the informal sector typically face low incomes and work in vulnerable and often hazardous working conditions. These individuals are not generally protected in case of unemployment, accident, sickness or old age, despite the fact that their employment is much more economically precarious and accidents and work-related diseases are more widespread in the informal sector. The lack of protection often means that they do not have the means to invest in development of their skills, their business assets or their families' well-being (such as the education of their children). Extending social protection floors to these individuals contributes to the gradual formalization of employment while reducing vulnerability and poverty and thus boosting equitable growth (ILO, 2011c). For example, it has been found that informal-sector workers who receive unemployment benefits are more successful in their search for jobs (Lund, 2009).

… while other measures are important to keep labour market participation high.

Improving skills and labour market matching and providing incentives for firms to retain and hire workers have proved to be effective tools in achieving economic recovery and growth. Earlier ILO simulations have shown that increasing active labour market spending by half of 1 per cent of GDP could increase employment by between 0.2 per cent and 1.2 per cent in the medium term, depending on the country (ILO, 2011e). Spending on well-designed employment programmes can therefore boost economic growth while being consistent with fiscal objectives in the medium term (table 5.3).

- *Boosting job matching efforts, especially for the vulnerable*: Although economic growth is necessary for overall employment creation, extensive research shows that growth alone will not benefit certain vulnerable or excluded groups. Some countries have taken steps to improve job matching to help such groups benefit from economic growth; for example, through measures that provide incentives to enterprises to hire disadvantaged workers by offering tax breaks or subsidized wages or work programmes. These subsidies mainly serve to fill existing vacancies with members of targeted groups, rather than creating additional employment. However, the social benefits and poverty-reducing effects can be substantial, as they open up opportunities to people who otherwise face greater barriers to work. In the longer term, this measure increases the supply of labour with consequent positive macroeconomic effects (Meadows, 2007).

Table 5.3 Examples of measures to reinforce employment relationships and upgrade skills

Boosting hiring	In 2008, the Government of **Turkey** designed a subsidy for new youth hires for the period between July 2008 and June 2009, called the Youth Wage Subsidy Programme. During the year that it was active, the programme led to significant increases in net registered jobs in the order of 5 and 15 per cent (Betcherman et al., 2008; ILO, 2013 forthcoming).
Keeping workers engaged in the labour market	The Work-Sharing Programme put in place in **Canada** helped companies and workers to continue their employment relationship during the crisis. In **Germany**, employment stability was largely achieved through measures aimed at adjusting working time. At the enterprise level, the adjustment of working hours to accommodate rising or declining output took place through mechanisms including reductions in overtime, fewer regular working hours and adjustments to working-time accounts.[a]
Upgrading workers' skills	In **Sweden**, an information technology training programme for unemployed people included active involvement of employers to select the training and provide work experience. The employment rates achieved by the programme were 20 per cent higher than the regular IT training available to unemployed people under the standard active labour market policy (ALMP). Several African countries, including **Malawi**, **South Africa** and **Tanzania** have introduced Government-backed apprenticeship programmes that integrate theoretical learning with work experience (ILO, 2012a). They base their approach on building partnerships between the Government, service providers and the private sector. The programme Jóvenes con Más y Mejor Trabajo in **Argentina**, launched in 2009, targets youth aged 18 to 24 who neither have a job nor receive social assistance and who have not completed compulsory education. To encourage these youths to participate, the Government provides financial stipends to those who enrol in training workshops.
Balancing income support and activation	**Denmark** has a generous social safety net combined with flexible hiring and firing rules and extensive use of ALMP. During the crisis, the country used this combination of policies to achieve comparatively good employment outcomes (Andersen, 2011). In an attempt to strengthen the automatic stabilizing effects of labour market policies, **Germany** reinforced its Public Employment Service. Indeed, the first two stimulus packages announced measures to improve the ratio of unemployed persons to caseworkers (ILO, 2011b).

[a] Working-time accounts are used to register and manage time credits and deficits that result from a change in the planned working schedule of workers. They allow more flexible structuring of the daily working time of employees and enable the daily and weekly working time to be altered within defined limits.

- *Keeping workers attached to enterprises*: Incentives to encourage firms and unions to adjust labour demand by reducing working hours rather than laying off workers constituted a successful mechanism in a number of countries during the crisis. These programmes have both an active labour market policy component, as they encourage employers to avoid lay-offs despite a temporary lack of work, and a passive labour market policy component, as they support incomes despite temporary wage or working-hour reductions (Crimmann et al., 2010).
- *Training programmes that match the skills in demand*: The direct involvement of employers, either as providers of on-the-job training or as providers of work experience to those receiving classroom-based training, leads to better outcomes than purely classroom-based training options (Martin and Grubb, 2001). This approach is also important to equip workers with the skills needed in emerging sectors. In this respect, efforts to leverage better private–public partnerships could help to improve the overall effectiveness of training delivery (ILO, 2011d).

C. The political economy of a job-friendly approach

The previous section examined a range of macroeconomic, labour market and social policies that can be used to support job-rich recovery and growth. Yet, while the goal of job-rich growth is universally supported, the shift to policies that could achieve this end is hampered by various barriers. This section examines the political economy dimensions of tackling these barriers and the role of the ILO in these efforts.

In order to shift to a job-friendly strategy, it is crucial, first, to address misconceptions regarding the economic effects of pro-employment interventions …

Despite extensive evidence to the contrary, the perception that pro-employment government interventions will damage the economy is often entrenched.[12] This is particularly evident in countries dealing with sovereign debt crises and facing a lack of confidence on the part of global financial markets. In such cases, the consolidation policies that are chosen have tended to place the costs of consolidation disproportionately on the labour market and social programmes. In some cases, the opportunities for governments to adopt pro-employment policies have been limited by conditions set by international financial institutions.

More generally, it is often claimed that government intervention in the form of social protection or minimum wages may adversely impact competitiveness and compromise future growth prospects, despite the examples of positive outcomes (discussed in Chapter 3). Likewise, public investment is sometimes regarded as "crowding out" private investment, even where there is insufficient aggregate demand and excess output capacity. By contrast, Chapter 4 points out the mutually reinforcing effects of public policies, such as investment in infrastructure and research and development. Against mounting evidence, a fundamental belief persists in some quarters that less regulation and limited government will

12. See, for instance, studies of inconsistency in policy-making, such as Maskin and Xu (2001) or Robinson and Torvik (2009).

Box 5.3 How employment and social coherence have been addressed in international policy discourse

The first summit of G20 leaders was called in November 2008 in an effort to coordinate the global response to the financial crisis that had just erupted. Since that time, Heads of State have met on five occasions. The first summit in Washington focused almost exclusively on addressing the challenges faced by the global financial system. In London, in early 2009, the group pledged to "restore confidence, growth and jobs". At the time, the G20 acknowledged that jobs and well-distributed growth were central to a sustained recovery.

However, there was implicit acceptance of the doctrine that jobs would follow growth. As a result, at the Pittsburgh summit in late 2009, with global growth having returned to positive territory, there was a premature sense of accomplishment. The group did note that unemployment challenges remained and made strong commitments to place the creation of quality jobs at the heart of the recovery.

At the Toronto gathering in June of 2010, however, the entire focus had shifted to the need to cut fiscal deficits, especially in advanced economies. Despite the fact that many of these economies were suffering most in terms of job creation, the summit failed to pay sufficient attention to the importance of jobs and their role in building a sustainable recovery.

At the Seoul summit in late 2010, as it became clear that the deterioration in labour market and social conditions was adversely affecting the economic recovery, jobs were put back at the forefront of the agenda and leaders stated that they were "determined to put jobs at the heart of the recovery". The commitments, however, were rather centred on education and training to improve labour supply and productivity, rather than more direct support to stimulate labour demand and job creation.

In Cannes, in November 2011, with the global economy still facing a sizeable jobs deficit, more emphasis was placed on a "global strategy for growth and jobs". However, this commitment was bound by fiscal consolidation and, even in countries with strong public finances, the advice was simply to allow automatic stabilizers to do the work, rather than engage in more direct stimulus or other measures.

In Los Cabos (Mexico) in June 2012, the G20 leaders declared themselves to be "united in [their] resolve to promote growth and jobs". They adopted a declaration that addresses, among other things, employment and social protection, food security, the challenges of development, and longer term prosperity through inclusive green growth. A Growth and Jobs Action Plan was agreed upon to collectively strengthen demand and restore confidence with a view to supporting growth and fostering financial stability in order to create high-quality jobs and opportunities for all.

Source: G20 (2012), (2011), (2010a), (2010b), (2009) and (2008).

boost business confidence, improve access to international financial markets and increase investment, although these results have not been evident in many advanced economies.

In these cases, both governments and international financial institutions must examine the evidence of what works – and, importantly, what is not working – in order to achieve fiscal consolidation in socially acceptable, sustainable and effective ways.

... second, to promote coordinated approaches rather than leaving each country to its own devices ...

One of the main barriers to adopting a job-friendly approach is that policymakers do not want to be seen changing course unilaterally, which could undermine the credibility of their respective governments. Even when it is clear that switching course is a better strategy, it is difficult for one country to act without some degree of international coordination or support. This is both an "information problem" and a classic "coordination problem". A consensus may be slowly emerging that governments must adopt growth-boosting and job-friendly policies (box 5.3). The G20 process provides an opportunity for such coordination (see ILO and OECD, 2011a).

Inadequate policy coordination tends to introduce downward pressure on aggregate demand. The experience of developing countries in the 1980s and 1990s is a case in point. In reaction to the financial crises during that period, many of these economies embarked on external surplus strategies. This was possible because advanced economies ran external deficits; however, the imbalances were unsustainable. Looking to the future, a different approach must be found in order to create a stable environment for growth and job creation. Evidence from the Great Depression, the recessions of the 1970s and 1980s (Oudiz and Sachs, 1984), the Asian financial crisis and more recent empirical evidence[13] suggest that the benefits of coordinated policy efforts in terms of job creation are substantial.[14]

…. and, third, to recognize that fairer income distribution can produce both equity and efficiency gains.

Distributional concerns represent a further major obstacle to the adoption of job-friendly strategies. It is a fact that there will be winners and losers in the adoption of such strategies. For example, shifting taxation away from productive investment and employment will tend to impact on financial and property incomes. Analysis is important to assess whether these trade-offs are real or not. And if the adoption of job-friendly policies does indeed tend to favour low- and middle-income groups or small businesses more than other groups or businesses, it is important to assess both the equity and the efficiency gains associated with different strategies (see Torres, 2010). For instance, well-designed wage policies may support equity goals while contributing to overall growth and tax receipts, thereby relieving pressure on fiscal policy.

There is a role for the ILO in building political consensus and facilitating social dialogue.

The ILO can be part of the solution to the "information and coordination problems". The ILO, as an international agency specializing in labour issues, can provide support and international credibility to national initiatives for adopting job-friendly strategies.

The promotion of policies for job-rich growth and equity is a fundamental aspect of the ILO's agenda. Indeed, it is stated in the ILO Constitution and other foundational documents.[15] Since the crisis broke out, the ILO has been actively engaged in international debates on how to secure a job-rich recovery and a transition to a more sustainable pattern of global development and growth (ILO, 2010). The ILO's efforts to provide a job-centred response to the crisis led to the adoption of the Global Jobs Pact (ILO, 2009a) – a global policy instrument that involved

13. A number of theoretical and empirical analyses have argued about the significant gains to be made from coordination. See, for example, Canzoneri et al. (2005), Cooley and Quadrini (2002), Kollmann (2002), Pappa (2002), Sutherland (2002) and Tchakarov (2002).

14. Inward-looking government bailouts to financial institutions drew much needed capital from the rest of the world, especially from developing countries. Another example is the implementation in early October of a deposit guarantee in Ireland, which attracted an amazing number of depositors away from British banks, nearly inducing a run on deposits (see Frieden, 2009).

15. The Declaration on Social Justice for a Fair Globalization, adopted in 2008, builds on the Philadelphia Declaration of 1944 and the Declaration on Fundamental Principles and Rights at Work of 1998. It emphasizes the key role of the ILO in dealing with the social dimension of globalization through the Decent Work Agenda. Through this Declaration, Heads of State and Governments stated that they agreed "to make the goals of full and productive employment and decent work for all ... a central objective of our national and international policies as well as our national development agendas" ILO (2008).

considerable dialogue with other international institutions. These documents and decisions represent a mandate to the ILO from its constituents to support policies that create decent work and promote social justice.

Renewed ILO partnerships with other international organizations can help to ensure that macroeconomic and social goals are treated in a coherent manner. And, finally, social dialogue between governments, employers and workers' organizations is more relevant than ever in shaping job-friendly policies.

References

Alesina, A. 2010. "Fiscal adjustments: Lessons from recent history", paper prepared for the Ecofin Meeting in Madrid, 15 April (Harvard University).

Andersen, M. T. (2011), "A flexicurity labour market in the great recession – the case of Denmark", paper presented at the CPB-ROA conference on flexibility of the labour market.

Behrendt, C.; Bonnet, F.; Cichon, M.; Hagemejer, K. 2011. "Social security: Three lessons from the global crisis", in *The global crisis: Causes, responses and challenges* (Geneva, International Labour Office), pp. 167–180.

Betcherman, G.; Daysal, N. M.; Pages, C. (2008). "Do Employment Subsidies Work? Evidence from Regionally Targeted Subsidies in Turkey." IPC Working Paper Series No. 66.

Canzoneri, M.; Cumby, R.E.; Diba, B.T. 2005."The need for international policy coordination: What's old, what's new, what's yet to come?", in Journal of International Economics, Vol. 66, Issue 2, pp. 363–384.

Cazes, S.; Khatiwada, S.; Malo, M. 2012. *Employment protection and collective bargaining: Beyond the deregulation agenda*, Employment Sector Working Paper No. 133 (Geneva, International Labour Organization).

Cooley, F.; Quadrini, V. 2002. "Common currencies vs. monetary independence", Working Paper (New York University).

Crimmann, A.; Wießner, F.; Bellmann, L. 2010. *The German work-sharing scheme: An instrument for the crisis*, Conditions of Work and Employment Series No. 25 (Geneva, International Labour Office).

Escudero, V.; López Mourelo, E. 2013 (forthcoming). *Public debt, fiscal consolidation and the effect on employment*, ILO Research Series (Geneva).

Federal Reserve. 2013. "Challenges confronting monetary policy", speech of the Vice Chair Janet L. Yellen at the 2013 National Association for Business Economics Policy Conference, Washington, DC, 4 March 2013. Available at: http://www.federalreserve.gov/newsevents/speech/yellen20130302a.htm#f14 [accessed 26 May 2013].

Freeman, R.; Swedenborg B.; Topel, B. (eds) 2010. *Reforming the welfare state: Recovery and beyond in Sweden*, National Bureau of Economic Research (University of Chicago Press).

Frieden, J.A. (2009), 'Avoiding the worst: International economic cooperation and domestic politics', VoxEU (February 2). Available online at http://www.voxeu.org/index.php?q=node/2956

G20. 2012. G20 leaders' declaration, 18–19 June 2012, Los Cabos, Mexico.

—. 2011. *Communiqué: G20 Leaders Summit*, 3–4 Nov. 2011, Cannes.

—. 2010a. *The G20 Seoul Summit Leaders' Declaration*, 11–12 Nov. 2010, Seoul.

—. 2010b. *The G20 Toronto Summit Declaration*, 26–27 June 2010, Toronto.

—. 2009. *The Pittsburgh Summit: Leaders' Statement*, 24–25 Sep. 2009, Pittsburgh.

—. 2008. *Declaration Summit of Financial Markets and the World Economy*, 15 Nov. 2008, Washington, DC.

International Labour Organizaion (ILO). 2013 (forthcoming). *Kenya: A job-centred policy framework for a more inclusive labour market*, Studies on Growth with Equity (Geneva, International Institute for Labour Studies).

—. 2012a. *Statistical update on employment in the informal economy* (Geneva, Department of Statistics).

—. 2012b. *World of Work Report 2012: Better jobs for a better economy* (Geneva, International Institute for Labour Studies).
—. 2012c. *Eurozone job crisis: Trends and policy responses*, Studies on Growth with Equity (Geneva, International Institute for Labour Studies).
—. 2011a. *Building a sustainable job-rich recovery* (Geneva, International Institute for Labour Studies).
—. 2011b. *Germany: A job-centred approach*, Studies on Growth with Equity (Geneva, International Institute for Labour Studies).
—. 2011c. *Key Indicators of the Labour Market (KILM)*, 7th edition (Geneva).
—. 2011d. *Spain: Quality jobs for a new economy*, Studies on Growth with Equity (Geneva, International Institute for Labour Studies).
—. 2011e. *World of Work Report 2011: Making markets work for jobs* (Geneva, International Institute for Labour Studies).
—. 2011f. *World Social Security Report 2010/11: Providing coverage in times of crisis and beyond* (Geneva).
—. 2010. *Policy coherence for strong, sustainable and balanced growth*, Conference Paper of the Working Party on the Social Dimension of Globalization, 309th Session, Geneva, Nov. 2010.
—. 2009a. *Recovering from the crisis: A global jobs pact*, text adopted by the International Labour Conference at its Ninety-eighth Session, Geneva, 19 June 2009.
—. 2009b. *Protecting people promoting jobs*, ILO Report to the G20 Leader's Summit, Sep. 2009.
—. 2008. ILO *Declaration on social justice for a fair globalization*, text adopted by the International Labour Conference at its Ninety-seventh Session, Geneva, 10 June 2008.
International Labour Organization (ILO); Organisation for Economic Co-operation and Development (OECD). 2011a. *Promoting policy coherence for decent work and full, productive employment*, a policy note for the G20 Meeting of Labour and Employment Ministers, Paris 26–27 Sep. 2011, prepared by the ILO in collaboration with the OECD (Geneva).
Jonung, L. 2009. *The Swedish model for resolving the banking crisis of 1991–93: Seven reasons why it was successful*, Economic Papers 360, Feb. (European Commission).
Kollmann, R. 2002. "Monetary policy rules in an interdependent world", Working Paper (University of Bonn).
Lund, F. 2009. "Social protection and the informal economy: Linkages and good practices for poverty reduction and empowerment", in *Promoting pro-poor growth: Social protection* Paris, OECD).
Martin, J.P.; Grubb, D. 2001. "What works and for whom: A review of OECD countries' experiences with active labour market policies", in Swedish Economic Policy Review, Vol. 8, pp. 9–56.
Martner, R.; Tromben, V. 2004. «La sostenibilidad de la deuda pública», in *Revista de la CEPAL*, Vol. 84, Dec., pp. 99-115
Maskin, E.; Xu, C. 2001. Soft budget constraint theories, in *Economics of Transition*, Vol. 9, pp. 1–27.
Meadows, P. 2007. *What works with tackling worklessness?*, review prepared for the London Development Agency and GLA Economics (London).
Pappa, E. 2002. "Do the ECB and the Fed really need to cooperate? Optimal monetary policy in a two-country world", Working Paper (London School of Economics).
Robinson, J.A.; Torvik, R. 2009. "A political economy theory of the soft budget constraint", *European Economic Review*, Vol. 53, pp. 786–798.
Sutherland, A. 2002."International monetary policy coordination and financial market integration", Working Paper No. 174, European Central Bank.
Tchakarov, I. 2002. "The gains from international monetary cooperation revisited", Working Paper (University of California, Davis).
Torres, R. 2010. "Incomplete crisis responses: Socio-economic costs and policy implications", in *International Labour Review*, Vol. 149, No. 2, pp. 227–237.
Torres, R.; Kühn, S.; and Charpe, M. (2013). Inequalities and crisis recovery, in Genevey, R., Pachauri, R., Tubiana, L. (eds), Reducing Inequalities: A Sustainable Development Challenge, TERI Press, New Delhi

Recent publications

Recently published

World of Work Report 2012: Better jobs for a better economy
International Institute for Labour Studies, 2012

Working towards sustainable development: Opportunities for decent work and social inclusion in a green economy
International Institute for Labour Studies, 2012

Studies on Growth with Equity

EuroZone job crisis: Trends and policy responses
International Institute for Labour Studies, 2012

Recent IILS Discussion Papers

A policy mix for gender equality: Lessons from high-income countries,
No. 214 (2013)
by Megan Gerecke

Labour incomes and employment GEL simulations of policy options,
No. 213 (2013)
By Stefan Kühn

International Labour Review

No. 1/2013 (Vol. 152)

The imprudence of labour market flexibilization in a fiscally austere world
by J. Capaldo and A. Izurieta

Measuring labour absorption problems in developing countries: Limitations of the concept of unemployment
by N.S. Sylla

Sex segregation in India's formal manufacturing sector
by M. Chattopadhyay, S. Chakraborty and R. Anker

Who will give effect to the ILO's Maritime Labour Convention, 2006?
by F. Piniella, J.M. Silos and F. Bernal

Labour provisions in preferential trade agreements: Current practice and outlook
by J.-M. Siroën

No. 4/2012 (Vol. 151)

Introduction: Crisis, policy responses and widening inequalities in the EU
by J. Leschke and M. Jepsen

Earnings and income inequality in the EU during the crisis
by P. De Beer

Financing social security in the EU: Business as usual?
by N. Wagner

The crisis and social policy: The role of collective agreements
by V. Glassner and M. Keune

Tracing the fate of EU "social policy": Changes in political discourse from the "Lisbon Strategy" to "Europe 2020"
by J-C. Barbier

No. 3/2012 (Vol. 151)

Low-wage work: A global perspective
by S. Lee and K. Sobeck

Low-paid workers in urban China
by Q. Deng and S. Li

Low pay in South Africa
by M. Oosthuizen

Low-paid employment in Brazil
by A. Fontes, V. Pero and J. Berg

Low pay among wage earners and the self-employed in India
by U. Rani and P. Belser

Low wages and policy options in the Republic of Korea: Are policies working?
by D. S. Hwang and B-H Lee

"Varieties of minimum wage system" through the dubious lens of indicator-based rankings
by S. Lee

Minimum Wage Violation in South Africa
by H. Bhorat, R. Kanbur and N. Mayet

The World of Work Report 2013 provides a comprehensive analysis of the current state of labour markets and social conditions around the world. It also projects employment trends and assesses the risk of social unrest.

The report points to an uneven employment picture, with emerging and developing economies performing better than the majority of advanced economies. Income inequalities continue to widen in advanced economies and although they have stabilized somewhat in large emerging and developing countries, they remain acute and progress in this area is still fragile.

The report analyses these trends and discusses the conditions necessary for putting job creation at the heart of policy making. It addresses the following questions:

- What are the challenges associated with an uneven job recovery from the global financial crisis? How have income inequalities evolved and what impact has this had on the middle class?
- Can minimum wages promote social justice and stimulate aggregate demand without dampening employment in developing countries? What is the scope in these countries for counteracting a double dip in growth and employment in advanced economies?
- How can productive investment be stimulated in order to create more and better jobs? And what are the financial reforms and corporate governance changes that would help to reinvigorate private sector investment?
- What are the trends in executive pay, and how do these compare with the evolution of the average worker's earnings?
- How to achieve a shift to job-friendly policies and what is the role of the ILO in this endeavour?

This report draws attention to the need to restore the economic and social fabric, thereby laying a foundation for a sustainable recovery from the global crisis.