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GLOBAL EMPLOYMENT TRENDS FOR YOUTH 2012



May 2012

Global Employment Trends for Youth 2012

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Executive summary

Youth unemployment crisis continues

The economic crisis abruptly ended the gradual decline in global youth unemployment rates during the period 2002–07. Since 2007 the global youth unemployment rate has started rising again, and the increase between 2008 and the height of the economic crisis in 2009 effectively wiped out much of the gains made in previous years. Globally, the youth unemployment rate has remained close to its crisis peak in 2009. At 12.6 per cent in 2011 and projected at 12.7 per cent in 2012, the global youth unemployment rate remains at least a full percentage point above its level in 2007. Nearly 75 million youth are unemployed around the world, an increase of more than 4 million since 2007. Medium-term projections (2012–16) suggest little improvement in youth labour markets. By 2016, the youth unemployment rate is projected to remain at the same high level.

Large increases were experienced in particular by the Developed Economies & European Union, Central & South-Eastern Europe (non-EU) & CIS, Latin America & the Caribbean and South Asia. In the Developed Economies & European Union, as well as in South Asia, little progress has been made in rolling back the impact of the global economic crisis. In North Africa, the youth unemployment rate has increased sharply following the Arab Spring, rising by almost 5 percentage points between 2010 and 2011 and adding to an already very high level of youth unemployment in this region as well as the Middle East.

Although (large) differences in regional youth unemployment rates remain, all regions face major youth employment challenges. Even in East Asia, the youth unemployment rate in 2011 was 2.8 times higher than the adult rate. Apart from the immediate negative economic and social effects of high youth unemployment, it is important to consider its detrimental effects on future employability and wages.

Economic crisis and youth labour force participation

Discouraged by high youth unemployment rates, many young people have given up the job search altogether, or decided to postpone it and continue their stay in the education system. If the unemployment rate is adjusted for the drop-out induced by the economic crisis, the global youth unemployment rate for 2011 would rise from 12.6 to 13.6 per cent.

The crisis-induced withdrawal from the labour force amounts to 6.4 million young people worldwide, and is particularly pronounced in the Developed Economies & European Union. Pressure on young job seekers will mount further when those young people that have been delaying their entry into the labour market will return to activity, and start searching for work. In contrast, the youth participation rate in Central & South-Eastern Europe (non-EU) & CIS is higher than expected on the basis of pre-crisis trends, which is likely to be partly poverty-driven.

Participation rates of young men and women are not only driven by economic conditions but also by institutional factors such as broader societal values, culture and norms which are particularly important in regions with large gender gaps such as South Asia, the Middle East and North Africa. Typically, female participation rates show a U-shaped pattern, with high

participation rates at low levels of income per capita that decrease as countries develop before rising again at higher income levels. This makes it difficult to disentangle the effect of the economic crisis on female participation rates from institutional or cultural factors.

Temporary employment and part-time work: Transition or trap?

Around the world, many youth are trapped in low-productivity, temporary or other types of work that fall short of their aspirations and that often do not open opportunities to move to more permanent, higher-productivity and better-paid positions.

In developed economies, youth are increasingly employed in non-standard jobs and the transition to decent work continues to be postponed. The growth of temporary employment and part-time work in the past decade, in particular since the global economic crisis suggests that this work is increasingly taken up because it is the only option available. For example, in the European Union youth part-time employment as well as youth temporary employment has grown faster than adult part-time and temporary employment both before and during the economic crisis.

The trend towards an increasing incidence of temporary contracts has fuelled the debate over labour market flexibility in general, and labour market duality in particular. Although the evidence on the impact of employment protection legislation (EPL) on aggregate employment/unemployment levels is inconclusive, EPL could affect the position of particularly vulnerable labour market groups such as young people. A partial (dual-track) reform strategy of EPL – involving labour market reforms only at the margin and for new hires while leaving the employment security entitlements of incumbent workers unchanged – could have been felt disproportionately by youth. In addition, the trend towards shorter tenure among young workers in many European countries could be due to the combination of easing in the legislation governing dismissal costs and procedures of regular contracts (and not of temporary contracts) with the weak individual bargaining power of young people.

Youth in developing economies face strong structural barriers in their search for decent work. The share of paid employment in total employment in much of the developing world is low, and a high share of youth is likely to engage in unpaid family work supporting (informal) family businesses or farms. The school-to-work transition may also include unemployment spells or periods of temporary or casual employment if such opportunities arise while the final station is likely to be own-account work. Demographic trends are such that the youth labour force continues to grow in precisely those regions where few opportunities for paid work exist and where working poverty is widespread, in particular in Sub-Saharan Africa and South Asia.

Education and the labour market

Education and training are essential for young people to enter the labour market successfully as they increase their potential productivity and employability. In developed economies, education also serves as a shield against unemployment for many youth, and there is a strong link between educational attainment and employment outcomes. In particular, individuals with primary education or less often have the highest unemployment rates, and fare worse than those with higher levels of education at times of crisis.

However, more human capital development and higher levels of education do not automatically translate into improved labour market outcomes and more jobs. In developing economies, available job openings are limited by small formal sectors, and youth do not necessarily possess the right skills to qualify for the existing openings. Fast structural change in these economies creates skill and geographical mismatches that pose special challenges for education and training systems and their responsiveness to labour market needs. In this respect, proper labour market information is necessary to facilitate both the role of education in meeting current labour demand and in facilitating change.

Young people that are neither in employment nor in education have become a serious concern for policy-makers, in particular in developed economies. This group, called “NEET” (not in education, employment or training), often constitutes at least 10 per cent of the youth population, and disproportionately includes youth with a low level of education in developed economies. Many countries have introduced policies to tackle this phenomenon, targeting specific subgroups of the NEET such as school drop-outs or unemployed youth.

Youth employment policies

As youth unemployment rates are projected to remain essentially unchanged in 2012, and most regions face major youth employment challenges, youth employment policies warrant the highest priority. Important areas for interventions include:

- *Macroeconomic and growth policies:* where fiscally feasible, it is crucial to maintain or enhance measures that can help boost employment generation and jump-start a sustainable jobs recovery. Youth employment is a rising priority in national policy agendas but often it is not sufficiently translated into scaled up programmes, funding is often limited and resources underestimated.
- *Active labour market policies and programmes:* active labour market measures such as development of public employment services, wage and training subsidies or tax cuts can motivate employers to hire young people as well as to counteract the excess supply of young workers in times of crisis. Equally important are programmes that aim to offset the mismatch of technical skills among youth, such as vocational training programmes, re-training of unemployed or discouraged youth, workplace training schemes, the creation or improvement of apprenticeship systems, entrepreneurship training programmes, soft and life skills training programmes for disadvantaged youth.
- Better strategies are needed to improve *social protection for young people*, and to tailor labour market reforms for their specific needs. Decent employment is not only about generating any jobs, but also about improving the quality of jobs.
- *Social dialogue and partnerships for youth employment:* the establishment of broad-based partnerships to turn commitment to youth employment into reality. Partnerships among governments, employers’ organizations, trade unions and other organizations can be instrumental in determining the most appropriate action to be taken at national and local levels for the promotion of decent work for young people.
- Supporting strong *labour market information and analysis systems* which provide the basis to monitor labour markets and design and implement effective policies.

1. Introduction

The global youth unemployment rate has proved sticky, and remained close to its crisis peak. At 12.6 per cent in 2011 and projected at 12.7 per cent in 2012, the global youth unemployment rate remains at least a full percentage point above its level in 2007. Nearly 75 million youth are unemployed around the world, an increase of more than 4 million since 2007.

Youth unemployment and situations in which young people work under poor conditions incur social as well as economic costs. Youth unemployment has been shown to be tightly linked to social exclusion, as the inability to find employment creates a sense of uselessness and idleness among young people. The most obvious gains then, in making the most of the productive potential of youth and ensuring the availability of decent employment opportunities for youth, are the social and personal gains to young people themselves.

The second clear gain to recapturing the productive potential of underutilized youth is an economic one. Idle youth are not contributing to the economic welfare of their country. The loss of income among the younger generation translates into a lack of savings as well as a loss of aggregate demand. Many youth who are unable to earn their own income have to be financially supported by the family. Governments fail to receive contributions to social security systems and are forced to increase spending on remedial services. A lack of decent work, if experienced at an early age, also threatens a person's future employment prospects and frequently leads to undesirable labour market outcomes over longer periods. All this is a threat to the growth potential of economies.

In order to design appropriate labour market and macroeconomic policies to promote better labour market outcomes for youth, it is necessary to understand the specific situation of young people in labour markets. Although this situation is strongly dependent on the overall labour market, youth also face specific barriers as they try to secure decent employment. These include the inexperience trap, which means that employers prefer workers that are experienced, and youth therefore do not manage to obtain an opportunity to gain experience. Youth also may be disadvantaged in the sense of having fewer contacts in the world of work. Furthermore, once employed, they may still be among the first to be dismissed on the basis of the last-in first-out principle, as they have the least seniority. But even though young people might lack experience they tend to be highly motivated and capable of offering new ideas or insights. They are the drivers of economic development in a country, and forgoing this potential is an economic waste. Designing appropriate policies to support their transition to stable employment should therefore be a country's highest priority.

This report sets out the youth labour market situation around the world. It draws on the overall analysis of labour markets in the *Global Employment Trends 2012* (ILO, 2012a), and complements the Director-General's Report to the 2012 International Labour Conference (ILO, 2012b). Further findings include:

1. Even though some regions have overcome or made progress in mitigating the impact of the global economic crisis, all regions face major youth employment challenges.
2. Youth unemployment rates continue at dramatic levels in the Developed Economies & European Union (regionally at 18.0 per cent in 2011) where the actual situation is even worse than suggested by the unemployment rate due to massive drop-out from the labour

force. Youth continuing their stay in the education system will put further pressure on unemployment rates once they enter the labour market.

3. Many youth in developed economies are increasingly trapped in non-standard and/or unstable employment due to both the impact of the economic crisis and labour market reforms. The effects of employment protection legislation reforms have been felt disproportionately by young workers.
4. In contrast to the developed economies, in Central & South-Eastern Europe (non-EU) & CIS the crisis has increased participation of youth in labour markets which is likely to be partly poverty-driven. The youth unemployment rate in this region, at 17.6 per cent in 2011, has declined somewhat since the height of the economic crisis.
5. The Middle East and North Africa continue to experience exceptionally high levels of youth unemployment (with youth unemployment rates at 26.5 and 27.9 per cent in 2011, respectively). Together with South Asia, these regions are also characterized by large gender gaps in youth labour force participation.
6. Youth in developing economies face strong structural barriers in their search for decent work. Young women are particularly disadvantaged with regard to labour market access as reflected in their low participation rates.
7. In developed economies, education still serves as a shield against unemployment for many youth. Therefore, those youth who are neither in education nor in employment warrant special attention. This so-called NEET group includes the unemployed as well as discouraged youth who have effectively disconnected from the labour market. The rise of NEET rates during the crisis in many developed economies is therefore a strong concern.
8. Although education and training is critical in developing economies as well, more labour market information and analysis is needed to better match the demand and supply of skills in the developing world.

2. Youth unemployment crisis continues in both developed and developing economies

The economic crisis abruptly ended the gradual decline in global youth unemployment rates during the period 2002–07. In contrast, since 2007 the global youth unemployment rate has started rising again, accelerating to an unprecedented 0.9 percentage points increase between 2008 and the height of the economic crisis in 2009. This increase has taken a heavy toll on young people around the world and effectively wiped out much of the gains made in previous years (see figure 1).

At 12.6 per cent in 2011, the global youth unemployment rate remains a full percentage point above its level in 2007. In 2011, nearly 75 million youth were unemployed around the world, an increase of more than 4 million since 2007 (see table 1).¹ Projections for 2012 show no improvement, with the global youth unemployment rate projected at 12.7 per cent. Medium-term projections (2012–16) also suggest little improvement in youth labour markets. By 2016, the youth unemployment rate is projected to remain at the same high level (see table 2a and figure 2).

In comparison to other groups on the labour market, youth face a particularly difficult situation, as is captured by the ratio of youth-to-adult unemployment rates. Globally, this ratio was 2.8 in 2011 and is projected at 2.7 in 2012 (see table 1). This means that, in comparison with adults, youth continue to be almost three times as likely to be unemployed, and elevated unemployment rates continue to hit them disproportionately.

Regional impact and the aftermath of the economic crisis

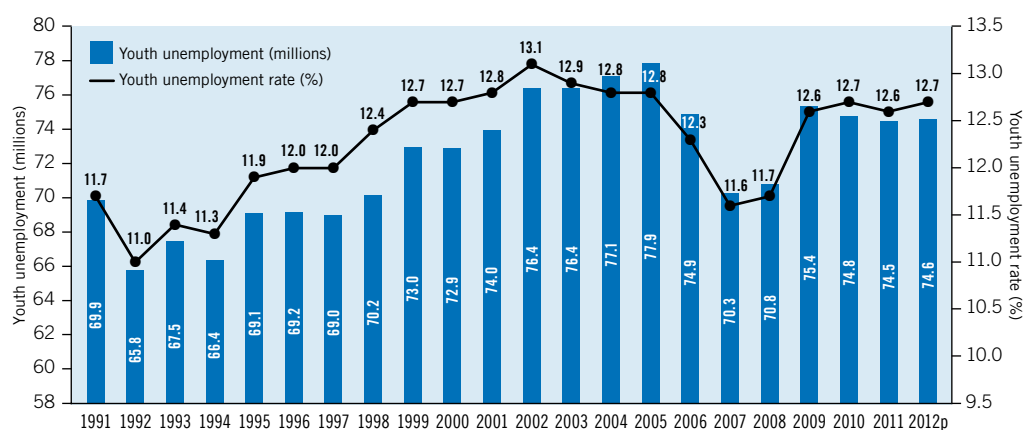
Youth unemployment rates by region show large variations, ranging from 8.6 per cent in South Asia to 25.7 per cent in the Middle East in 2008. Even though youth unemployment rates increased in most regions since then, there are important regional differences. The Developed Economies & European Union have been hit hardest by the crisis and its aftermath, and the change in both the unemployment rate and the number of unemployed youth from 2008 to 2011 were largest in this region. Over this period, the number of unemployed youth increased by a massive 26.5 per cent while the unemployment rate rose by 4.7 percentage points above the level in 2008. Most of this increase occurred between 2008 and 2009, which resulted in historically high rates in several developed economies.² Since 2009, not much progress has been made with the reduction of youth unemployment, and the regional youth unemployment rate reached 18.1 per cent in 2010, its highest level since at least the early 1990s. Projections suggest a youth unemployment rate of 18.0 per cent in the Developed Economies & European Union in 2012 (see tables 2a and 2b), in part reflecting the weak recovery in many countries. As shown in figure 2, the youth unemployment rate in the medium term is projected to decrease but pre-crisis levels are not likely to be reached even by 2016.

The economic crisis has also resulted in a dramatic increase in the youth unemployment rate in Central & South-Eastern Europe (non-EU) & CIS, jumping from 17.0 per cent in

¹ All tables are being referenced in Annex 1.

² See, for example, Bell and Blanchflower (2011) on youth unemployment in Sweden and the United States.

Figure 1. Global youth unemployment and unemployment rate, 1991–2012



p = projection

Source: ILO, Trends Econometric Models, April 2012.

2008 to 20.5 per cent in 2009. However, contrary to the Developed Economies & European Union, the rate decreased between 2009 and 2011, and fell to 17.6 per cent. This is still 0.6 percentage points above its level in 2008 but reflects a decrease of 2.9 percentage points since the height of the crisis (see figure 2). The decrease in the youth unemployment rate in Central & South-Eastern Europe (non-EU) & CIS has also contributed towards a slight reduction in the number of unemployed youth in the region since 2008.

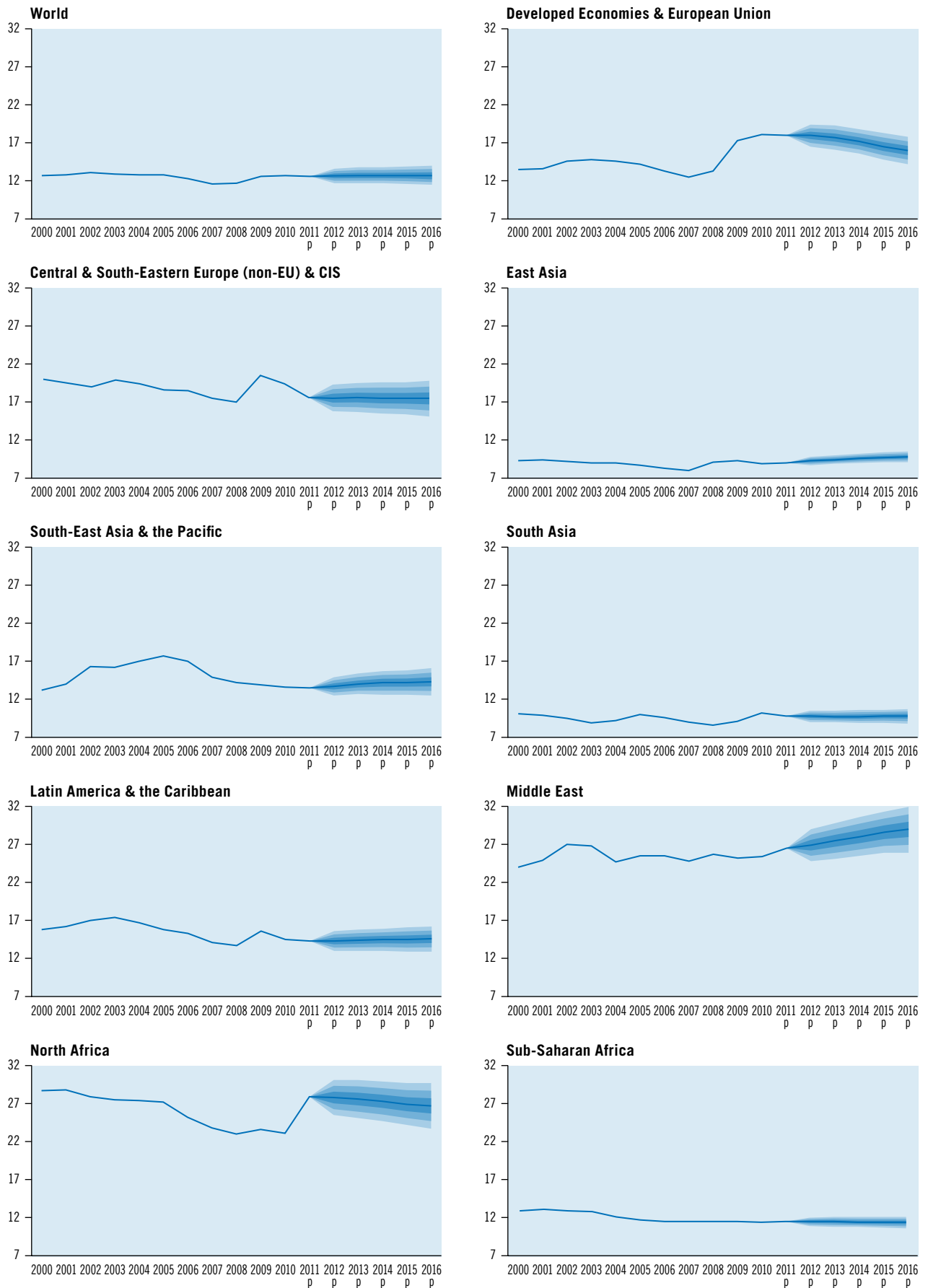
Latin America & the Caribbean have also experienced a sharp increase in youth unemployment rates during the crisis, from 13.7 in 2008 to 15.6 in 2009. However, much of the impact of the economic crisis has been overcome, and the rate decreased to 14.3 per cent in 2011. Nevertheless, the youth unemployment rate remains above its pre-crisis level and is not projected to decline in the medium term (see figure 2), partly owing to weaker growth.

In South Asia, the youth unemployment rate has increased by 0.5 percentage points between 2008 and 2009, and by a further 1.1 percentage point during 2009–10. Since 2008, South Asia added 1.2 million youth to the ranks of the unemployed, by far the largest number outside the Developed Economies & European Union. Similar to the developed economies, South Asia has also made little progress in rolling back the negative impact of the slowdown in growth during 2008–09 on youth unemployment (see figure 2).

North Africa and the Middle East stand out in terms of their overall unemployment problem, and these are the only two regions where the unemployment rate exceeded 10 per cent in 2011 for the population aged 15 and above. Moreover, the ratios of youth-to-adult unemployment rates are exceptionally high, at 4.0 in the Middle East and at 3.9 in North Africa, and youth unemployment rates have been at very high levels for decades in these regions. North Africa was relatively resilient to the global economic crisis but following the Arab Spring economic growth decreased and the youth unemployment rate increased sharply by 4.9 percentage points in 2011 (see figure 2). The Middle East is one of the two regions in which the youth unemployment rate decreased from 2008 to 2009 but since 2009 the rate has increased. In 2011, the youth unemployment rate stood at 26.5 per cent in the Middle East and at 27.9 per cent in North Africa.

South-East Asia and the Pacific has been affected less by the crisis in terms of the youth unemployment rate, and managed a slight reduction in the rate between 2008 and 2009. In 2011, at 13.5 per cent the youth unemployment rate was 0.7 percentage points below the level in 2008 (see figure 2). Following the sharp rise in the youth unemployment rate in the early stages of the global economic crisis, the youth unemployment rate remained close to 9 per cent in East Asia in recent years. The youth unemployment rate in Sub-Saharan Africa, at 11.5 per cent in 2011, has been fairly stable since 2005.

Figure 2. Youth unemployment rate estimates and projections, 2000–16 (%)



p = projection

Note: The charts depict the evolution of global and regional unemployment rates between 2000 and 2010 as well as unemployment rate projections for 2011 to 2016. Projections are presented in the form of a fan chart, indicating the probability of various outcomes for the unemployment rates. Each shade of the fans corresponds to one-third of the confidence interval around the central projection (see Annex 2 for methodological information).

Source: ILO, Trends Econometric Models, April 2012.

Although the economic crisis has been detrimental for both young men and women, at the global level as well as in most regions the impact of the economic crisis on female youth unemployment rates was greater than on male rates. The difference in impact was very pronounced in North Africa where the female youth unemployment rate rose by 9.1 percentage points in comparison to 3.1 percentage points for male youth. Only in the Developed Economies and the European Union was the impact more detrimental for young men (tables 3a and 3b).

In sum, youth unemployment rates have increased in most regions since 2008, at times to dramatic levels. Even though there are large differences in regional youth unemployment rates, and some regions have made better progress in mitigating or rolling back the impact of the global economic crisis than others, all regions face major youth employment challenges. Even in East Asia, perhaps the most economically dynamic region, the youth unemployment rate in 2011 was 2.8 times higher than the adult rate. In the medium term, upward pressures on youth unemployment rates are projected in several regions, including the Middle East, East Asia and South-East Asia and the Pacific.

Participation or drop-out?

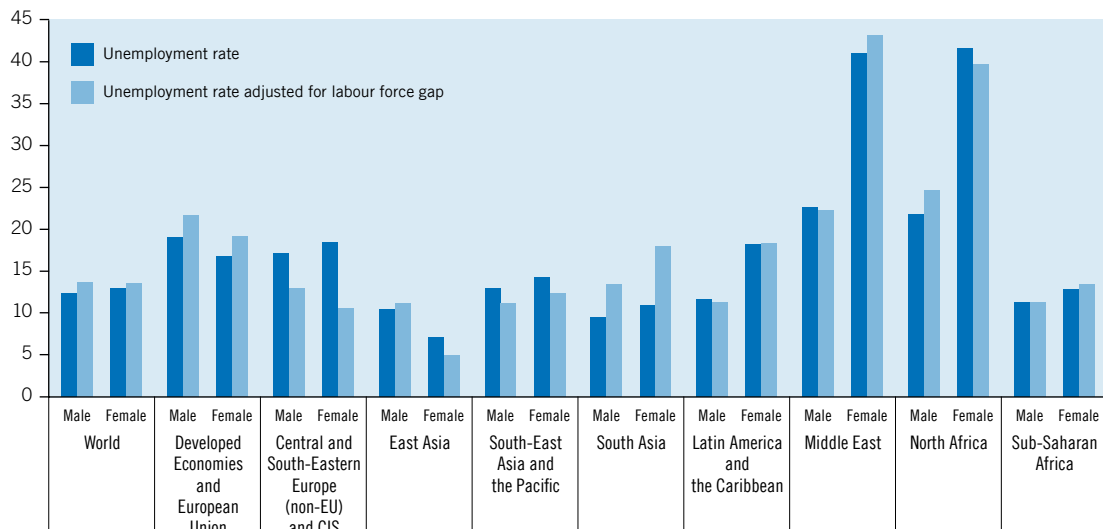
High youth unemployment rates discourage young people from looking for work, and those who are not prepared to give up face long periods of job search. Unsurprisingly, some of the countries with very high youth unemployment rates also have a high incidence of youth long-term unemployment (the number of unemployed for one year or longer as a proportion of all unemployed). Data from Eurostat show that, in 2011, the youth unemployment rates in Croatia, Slovakia and Spain were 35.8, 33.6 and 46.4 per cent, respectively; the highest rates among European countries with available data at the time of writing this report. Around one-third of the unemployed youth in Spain were looking for a job for more than a year while in Croatia and Slovakia the long-term unemployed accounted for more than half of the unemployed youth in the third quarter of 2011.

Such extremely adverse labour market conditions lead many youth to give up the job search altogether or to decide to postpone it and continue their stay in the education system.³ An indication of the gap in labour force participation induced by the crisis can be obtained through a comparison of pre-crisis trends in youth labour force participation and the ILO's estimates and projections of the economically active population. In figure 3, such a comparison is made for each region in 2011, and separately for young men and women. Globally, this labour force gap amounted to 1.2 per cent for young men and 0.5 per cent for young women. In other words, if the unemployment rate is adjusted for drop-out induced by the economic crisis, the global youth male unemployment rate would rise from 12.4 to 13.6 per cent, and the global youth female unemployment rate would rise from 13.0 to 13.5 per cent. The crisis-induced withdrawal from the labour force amounts to 6.4 million young people worldwide, which means that the adjusted global youth unemployment rate would be 13.6 per cent (compared with an actual rate of 12.6 per cent).

Labour force gaps show striking differences between regions. In the Developed Economies & European Union, the crisis resulted in around 2 million youth withdrawing from the labour market. In the OECD, higher unemployment rates have been linked with lower participation rates, providing evidence of a discouraged worker effect (Bell and Blanchflower, 2011). Pressure on young job seekers will mount further when those young people that have

³ Young people may also seek work elsewhere, including abroad, but issues relating to relocation or migration of youth are beyond the scope of the current report.

Figure 3. Youth unemployment rates and “adjusted” youth unemployment rates to account for reduced labour force participation, by sex, world and regions, 2011 (%)



Note: The adjustment of the youth unemployment rate has been made on the basis of a comparison of pre-crisis trends in youth labour force participation and the ILO's estimates of the economically active population.

Source: ILO calculations based on ILO, Trends Econometric Models, October 2011, and ILO (2011d), Economically Active Population Estimates and Projections, 6th edition.

been delaying their entry into the labour market will return to activity, and start looking for work.⁴

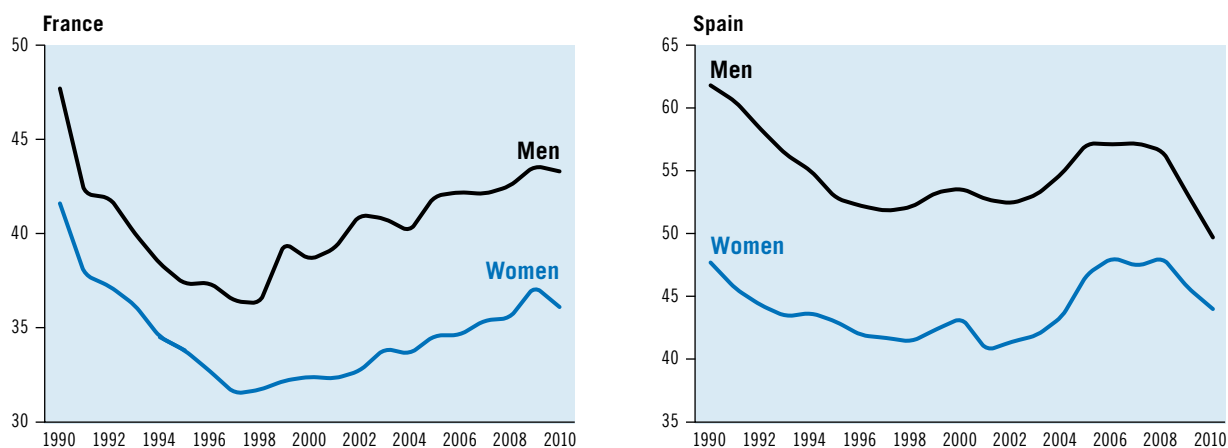
In contrast, the youth participation rate in Central & South-Eastern Europe (non-EU) & CIS was higher than expected on the basis of pre-crisis trends. Important factors explaining these opposing trends are the relative underdevelopment of social protection mechanisms in Central & South-Eastern Europe (non-EU) & CIS in comparison to developed economies, as well as the more detrimental impact of the economic crisis on wages in at least some countries in Central & South-Eastern Europe (non-EU) & CIS (ILO, 2010b). The loss of family income due to stagnant or declining wages or due to the lack of unemployment benefits upon job loss by family members is likely to have pushed youth into the labour market. In other words, these youth would have preferred to remain inactive, for example to continue their studies, if the economic environment would have been more favourable and their families could have continued their support.

The upward effect on youth participation rates is consistent with the sharp slowdown in the growth of tertiary enrolment ratios in Central and Eastern Europe and the decrease of these ratios in Central Asia at the height of the economic crisis in 2009 (see table 4). In Ukraine, for example, the tertiary enrolment ratio increased on average by 3.7 percentage points annually from 2000 to 2008 but this increase slowed down to 1.5 percentage points in 2009 and, in 2010, tertiary enrolment decreased by 1.1 points. In the absence of sufficient decent jobs, many youth in Central & South-Eastern Europe (non-EU) & CIS may also have been forced to rely on jobs with low barriers to entry, such as own-account work or contributing family work (see section 3 below).

Labour market distress and discouragement on the one hand, and the need to work and sustain (family) income on the other, underlie much of the regional variations shown in figure 3, but these factors should also be analysed in the context of regional structural economic and labour market conditions. Many low-income economies in Sub-Saharan Africa weathered the crisis well, mainly due to their more limited trade and financial linkages with

⁴ In the Netherlands, for example, analysts expect a rise in youth unemployment in the course of 2012 due to the entry of youth who have been delaying their labour market entry; see *De Volkskrant*, 16 March 2012 (<http://www.volkskrant.nl/vk/nl/5273/Werk/article/detail/3225974/2012/03/16/Positie-jongere-op-arbeidsmarkt-holt-achteruit.dhtml>).

Figure 4. Youth labour force participation rate in France and Spain, 1990-2010 (%)



Source: ILO (2011a), *Key Indicators of the Labour Market, 7th edition* (Geneva), table 1b (national estimates).

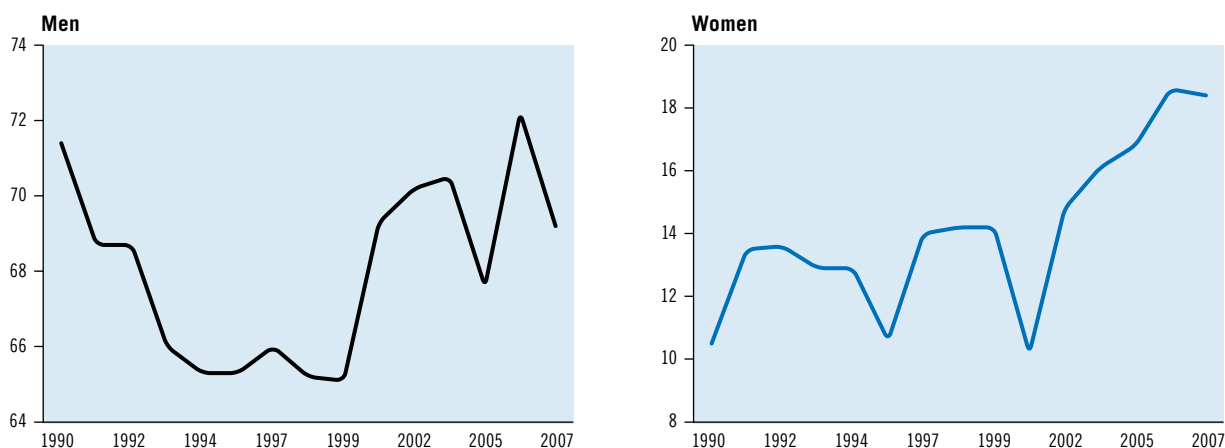
the global economy and their reliance on agriculture as a source of employment and income. In these countries, labour force participation rates tend to be high and little affected by global economic conditions.

Apart from short-term and structural economic conditions, participation rates of young men and women are driven by institutional factors such as broader societal values, culture and norms. Institutional factors are particularly important in regions with large gender gaps such as South Asia, the Middle East and North Africa (see table 5). At the country level, this can be illustrated if we compare participation rates for young men and women in two developed economies, France and Spain, on the one hand, and in Pakistan (South Asia) on the other. As shown in figure 4, the gender gap in youth participation rates for young people in France and Spain is limited, in line with the relatively small gap in participation rates in the Developed Economies & European Union. Furthermore, the development of participation rates for young men and women in these two countries is fairly similar over time. Economic opportunities certainly play an important role in this development, as indicated by the drop in participation for both men and women in the most recent years. In Pakistan, in contrast, youth male and female participation rates show little similarity in their development over time, and are at very different levels, with some progress towards closing the still large participation gap (see figure 5). Indeed, participation rates of young Pakistani men are among the highest in the world but less than one out of five young Pakistani women participates in labour markets, which primarily seems to reflect cultural barriers to female labour force participation. Since the early 1990s there has been some convergence between (youth) male and female participation rates in Pakistan but this process is not linear. Typically, female participation rates show a U-shaped pattern, with high participation rates at low levels of income per capita that decrease as countries develop before rising again at higher income levels.⁵ This pattern has been confirmed by a number of (cross-) country studies (Durand, 1975; Goldin, 1995; Mammen and Paxson, 2000), including for Pakistan (Fatima and Sultana, 2009).

Consequently, it is difficult to disentangle the effect of the economic crisis on female participation rates from institutional or cultural factors in South Asia, and the differences between young men and women in figure 3 may have little to do with short-term global or regional economic conditions. Empirical studies of countries in South Asia have often found that female participation is lower if household income increases (e.g. Bangladesh – Begum and Lawson, 2009; India – Dasgupta and Goldar, 2005; Pakistan – Faridi et al., 2011). Such studies give weight to the assertion that women primarily enter the labour market in the

⁵ Note that participation of young males is not necessarily following a linear trend either, as illustrated in figures 4 and 5. However, female participation has attracted much more attention, given the very low levels seen in some developing countries and the related issues of both equity and the potential for economic development.

Figure 5. Youth labour force participation rate in Pakistan, 1990-2007 (%)



Source: ILO (2011a), *Key Indicators of the Labour Market, 7th edition* (Geneva), table 1b (national estimates).

case of economic necessity. They also help explain why considerable economic growth in past decades has resulted in little progress in reducing gender gaps in youth participation rates in South Asia (see table 5). As economic growth by itself is not sufficient to render support for convergence between male and female participation rates, strong gender policies are needed in regions with large gender gaps to overcome the persisting structural barriers to female labour force participation. In this respect, it is noteworthy that the unemployment gap adjusted for labour force drop-outs would actually be larger in the South Asia, Latin America & the Caribbean and Middle East regions.

Longer-term consequences of the youth jobs crisis

Persistent and high youth unemployment has also important adverse longer-term consequences for currently young people. These include a higher risk of future unemployment, a prolonged period of unstable jobs and a potentially depressed income growth (Arumlamplam et al., 2001). Such consequences may result from a deterioration of skills but also from prospective employers' negative perceptions of youth who have been out of work for prolonged periods. Moreover, these effects are believed to be more severe for youth entering the workforce with an education level below the tertiary level who are already in a relatively disadvantaged position compared with their better educated peers (see section 4 below). Apart from its detrimental effects on future wages and employability, youth unemployment may hurt happiness, job satisfaction and health for many years thereafter (Morsy, 2012).

Increased vulnerability to future shocks: the jobs crisis has forced many households to sell their assets and borrow money which has increased the vulnerability of youth, in particular, to ongoing or future shocks. In order to meet consumption needs during periods of unemployment or reduced or erratic wages, many households have drawn down savings and sold possessions, or turned to friends, relatives, membership-based clubs, community groups and banks, where possible, for financial help. This behavior has been observed in a wide range of countries since 2008, including Bangladesh, Cambodia, the Central African Republic, Ghana, Kazakhstan, Kenya, Mongolia, the Philippines, Serbia and Thailand (Heltberg et al., 2012), Armenia, Bulgaria, Latvia, Montenegro and Romania (World Bank, 2011), Nigeria (Samuels et al., 2011) and Tonga (Patel and Thapa, 2010), among others.

Wage scars: unemployment produces permanent scars rather than temporary blemishes, especially on youth populations. Fairlie and Kletzer (1999) estimated that being unemployed while young results in lower future earnings by a magnitude of 8.4 and 13.0 per cent for males

and females, respectively. More recently, a study by Kahn (2010) estimated that a 1 percentage point increase in unemployment in the United States results in a 6 to 7 per cent decrease in the wages of college graduates. In addition, although the cost in terms of foregone wages decreases over time, it still remains significant 15 years later. In the United Kingdom, Burgess et al. (2003) found that youth unemployment raises the probability of unemployment later on; Gregg and Tominey (2005) estimated an earnings loss of up to 21 per cent at age 41 for workers who experience unemployment in early adulthood; and Bell and Blanchflower (2010) showed that unemployment in a person's early twenties negatively affects employment and earnings prospects, as well as health and job satisfaction, up to two decades later.

Social instability: the jobs crisis further threatens the well-being of households and young workers through rising levels of social discontent and instability. In this respect, the ILO's social unrest index indicates a significant aggravation of social unrest in 45 of the 118 countries surveyed (ILO, 2011f). The regions under greatest threat include the Middle East and North Africa, parts of Asia and the group of developed countries. One of the most obvious manifestations of these findings is the increasing number of street demonstrations and protests observed worldwide since 2010, which have been closely linked to the Arab Spring and European sovereign debt crises.

3. Temporary employment and part-time work: Transition or trap?

The type and quality of work are important determinants of the long-term labour market prospects of young people. In this regard, it is worrying to note that around the world, many youth are trapped in low-productivity, temporary or other types of work that fall short of their aspirations and that often do not open opportunities to move to more permanent, higher-productivity and better-paid positions. Young people often go through a transition period, during which work, study, travel and other activities complement each other. Although such a transition period by itself is no reason for concern, there are signs that youth in developed economies are increasingly trapped in non-standard jobs and the transition to decent work continues to be postponed. The growth of temporary employment and part-time work in the past decade, in particular since the global economic crisis, suggests that this work is increasingly taken up because it is the only option available.

Part-time work has been growing for many years, more recently due to the growth of male part-timers (ILO, 2011b).⁶ Many youth choose part-time work because of the constraints in the number of hours available for work. An increase in the part-time employment among young people can therefore be a positive sign that young workers combine work with study or other activities as a means of gaining experience and broadening their networks. However, the sheer magnitude of the increase in part-time employment among youth in European countries since the onset of the crisis suggests that part-time work is not only increasing because youth choose to work part-time (ILO, 2011c).

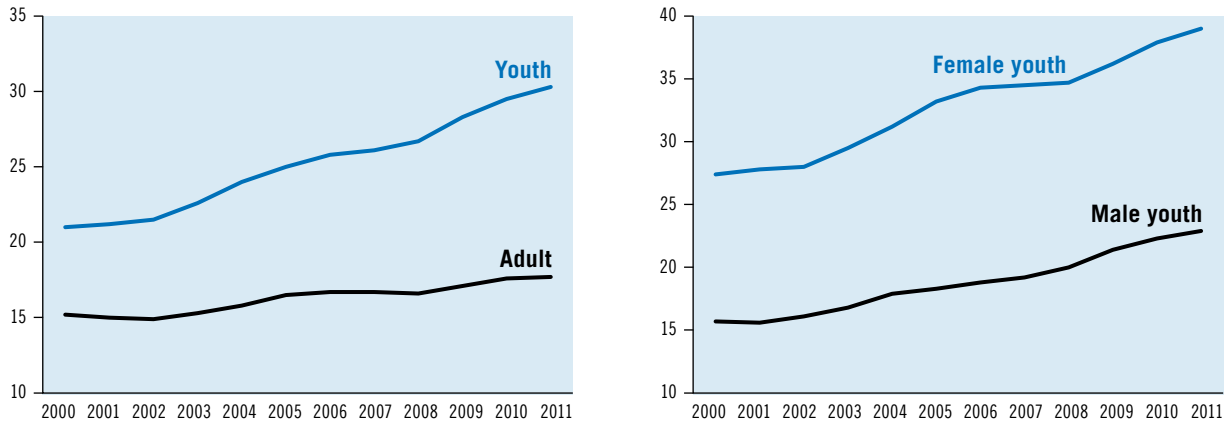
In the European Union, youth part-time employment has grown faster than adult part-time employment both before and during the economic crisis (see figure 6). Between the second quarter of 2008 and 2011, the youth part-time employment rate increased by 3.6 percentage points in the European Union as a whole while it increased by 11.8 percentage points in Spain and 20.7 percentage points in Ireland.⁷ In many countries, including Cyprus, Denmark, Greece, Hungary, Portugal and Slovenia, the increase during the same period exceeded 5 percentage points. During both 2000–08 and 2008–11, part-time employment grew faster for young women than for young men (see figure 6). The ILO's KILM database also shows a rapid increase of the youth part-time employment rate between 2008 and 2010 in Australia, Canada, Japan and New Zealand (ILO, 2011a).

Youth are also more likely than adults to work as temporary employees. In the second quarter of 2000, 35.2 per cent of youth employees worked on temporary contracts in the European Union, compared to 8.9 per cent of adult employees (aged 25–64 years). In other words, youth were already almost four times as likely as adults to be a temporary employee at that time. As shown in figure 7a, between 2000 and 2008 the share of temporary employment in total employment increased for both youth and adults in the majority of European Union Member States. However, the increase for youth, at 4.3 percentage points, was more than double the increase for adults (2.1 percentage points). In five countries, the increase for youth exceeded ten percentage points (Italy, Luxembourg, Poland, Portugal and Slovenia). Since the

⁶ There is no internationally agreed definition as to the number of hours below which one is considered to work part-time. Typically, the dividing line is between 30 and 40 hours per work. The OECD is using 30 hours as its cut-off line (see ILO, 2011a, ch. 6).

⁷ Quarterly comparisons are made in view of data availability.

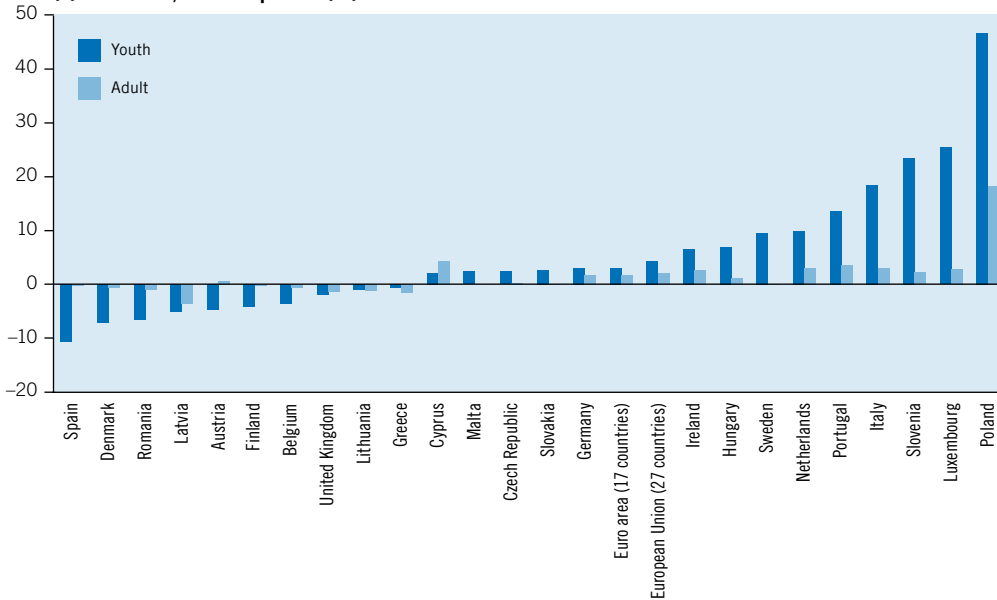
Figure 6. Part-time employment rates for youth and adults in the European Union, 2000–11 (second quarter, %)



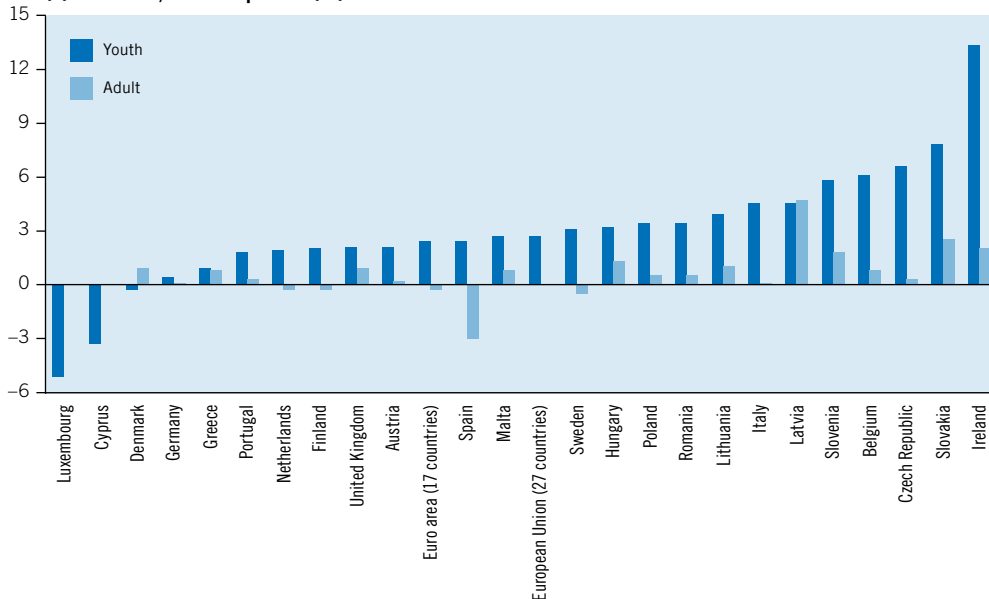
Source: ILO calculations based on Eurostat.

Figure 7. Change in the incidence of temporary employment in total employment in the European Union, youth and adults

(a) 2000–08, second quarter (%)



(b) 2008–11, second quarter (%)



Source: ILO calculations based on Eurostat.

onset of the global economic crisis there has been a further acceleration in the use of temporary contracts for young workers. Between 2008 and 2011, the share of temporary employees increased by 2.7 percentage points, or around 0.9 percentage points per year compared with 0.5 points per year during 2000–08. In contrast, the average share of temporary employment for adult workers in the EU remained unchanged during the same period (see figure 7b).⁸

Many temporary employees have “good” reasons to work on temporary contracts, for example, because they are still studying. This is, in fact, the most important reason for youth to take up temporary jobs in the European Union (41.3 per cent of temporary employees in 2010 were students). Nevertheless, the increasing importance of temporary work as an option of last resort is confirmed by the fact that more than one out of three youth state that they could not find a permanent job, and this proportion has been rising since the crisis started (from 36.3 in 2008 to 37.1 per cent in 2010).

Employment protection legislation and labour market duality

The trend towards an increasing incidence of temporary contracts has fuelled the debate over labour market flexibility. In particular, the discussion on labour market duality has been increasingly attracting attention. Labour market duality is by no means a new phenomenon but in the context of a job crisis the relationship between employment protection legislation (EPL, e.g. hiring and firing rules) and labour market outcomes has become a top priority for policy-makers.

Much empirical work has been produced on the impact of EPL on labour market outcomes. For more than two decades, this has been a highly controversial topic and many studies have tried to identify a causal link between EPL and (un-)employment across OECD countries (see box 1). So far, there is a general consensus that the evidence on the impact of EPL on aggregate employment/unemployment levels is not conclusive but EPL could have some positive/mitigating effects particularly for vulnerable labour market groups such as young people.

At the same time, many economists have argued that the growing segmentation in European labour markets over the last two decades was due to a partial (dual-track) reform strategy, involving labour reforms only at the margin (for new hires) while employment security entitlements of incumbent workers remained unchanged (Boeri, 2011; Eichhorst and Marx, 2011). Accordingly, it is the deregulation of the use of fixed-term contracts and agency work (rather than the reduction of protection for workers on permanent contracts) that led to increased duality between the “insiders” and “outsiders”, especially in countries where strict EPL for regular workers was combined with little protection of fixed-term contracts. Due to the asymmetric treatment of different groups of workers, the effects of these EPL reforms have been felt disproportionately by new entrants, in particular by youth (Dolado et al., 2002; Kahn, 2007; Cazes and Tonin, 2010).

Fewer studies have assessed the causal link between EPL and labour market duality, in particular (temporary) youth employment. Boeri (2011) highlights the fact that labour market duality would not only be characterized by a high share of temporary contracts but also by the lower probability of transitioning from temporary to permanent contracts due to the asymmetry between the two types of contracts. Cazes and Tonin (2010) found a trend towards shorter tenure among young workers in many European countries, and their findings suggest that this job instability was due to the combination of the easing in legislation governing dismissal costs and procedures of regular contracts (and not of temporary contracts) with weak individual bargaining power of young people.

⁸ It can be noted that the fact that the share of temporary employment for adult workers did not change during 2008–11 in the European Union may also be the result of a disproportionate reduction in the number of temporary contracts, as opposed to the creation of new permanent contracts.

Box 1. The impact of employment protection legislation on the youth labour market

Protecting employment and stabilizing jobs can be achieved using different instruments. Traditionally, countries have resorted to introducing clauses governing individual labour contracts to prevent employers from firing workers at will. In addition, in some countries, the legal system allows for an extensive use of anti-discrimination acts to prevent or limit firing workers with certain characteristics (related to their sex, age or ethnic group). Increasingly, countries have sought alternative ways of securing employment, either by differentiating social security payments across firms to account for the level of job turnover – i.e. effectively penalizing those companies that have a very high turnover of workers, such as the experience rating system in the United States – or by considering employment protection as part of the overall social security system with entitlement rights transferable from one job to another, as in the recently reformed system in Austria.

When implemented at the level of individual contracts, employment protection legislation (EPL) makes provisions for severance payments, advance notice periods and other procedural aspects related to the dismissal of employees. These regulations provide an insurance scheme to workers, avoiding unexpected income fluctuations and allowing sufficient time for the search of a new job (Pissarides, 2001). They are supportive of employment relations that are more long-term in nature, offering incentives for general and job-specific training investments that may result in higher productivity (Fella, 2005) and more innovative activity, especially when combined with particular wage bargaining systems (Bassanini and Ernst, 2002). Job security can also be crucial when it comes to the well-being and health of workers (Kompier et al., 2009). However, dismissals are more costly for employers in the presence of stringent regulations. It is these higher costs that may have an impact on youth unemployment.

In theory, EPL may have opposing effects on youth unemployment. On the one hand, employers may hire fewer workers in anticipation of higher dismissal costs. Job creation would then be reduced, which would make it more difficult to find jobs in particular for young jobseekers that form a considerable part of the unemployed. On the other hand, higher dismissal costs also lower the dismissal rate and therefore reduce the inflow into unemployment. This may encourage training activities that are expected to strengthen the employability of youth (Forrier and Sels, 2003). The magnitude of the effects also hinges on the degree to which wages can adjust in order to reflect higher dismissal costs (Lazear, 1990).

Empirical evidence on the impact of EPL on youth unemployment is inconclusive. While many tend to be supportive of the view that there is an adverse impact on youth unemployment (Addison and Teixeira 2003; Heckman and Pagés, 2000; Botero et al., 2004; Bernal-Verdugo et al., 2012), this impact has been questioned by others (Freeman, 2005; Howell et al., 2007), and there are some studies that reject an adverse impact of EPL on youth unemployment (Noelke, 2011). Some of the critical points that are brought forward include concerns over the indicators that are used to measure EPL (Bertola et al., 2000; Berg and Cazes, 2008) and the fact that statistical inference is mostly based on cross-country comparisons, which raises issues related to policy endogeneity. If country-specific institutional features such as the degree of unionization are related to both youth unemployment and EPL, then there is a high risk that results are spurious when the estimation methodology fails to take this into account. Finally, EPL is often analysed in an isolated way, ignoring interactions with other labour market policies.

In Europe, the introduction of a single contract has been debated in both academic and political circles as a response to labour market duality. The idea would be to narrow the differential between temporary and permanent workers through a more gradual and continuous increase of rights with tenure (Bentolila et al., 2010). While it is clear that an exit strategy from duality is needed, it is not obvious that the best approach would be through the introduction of a single contract. Many southern European countries where such a policy option is being considered have additional problems that hamper labour markets from functioning effectively, such as high school drop-out rates or inadequate active labour market policies. Also, implications of an easing on wage developments need to be considered: Existing empirical studies suggest that lowering EPL would increase entry-level wages, making it more difficult for young people to access employment (Leonardi and Pica, 2007, 2010). Therefore, a well-balanced approach towards EPL, which is coherent with other labour market policies and institutions, and which is based on social dialogue should be a key ingredient for youth employment policies (ILO and OECD, 2011).

Youth in developing economies

In the developing world, youth have traditionally faced strong structural and other barriers in their search for decent work. This is reflected in high rates of vulnerable employment and working poverty. Globally, vulnerable employment, defined as the sum of own-account work and unpaid family work, accounts for 56.2 per cent of the employed in developing regions in 2011. Such a high share of workers in vulnerable employment indicates widespread informal work arrangements, whereby workers typically lack adequate social protection and opportunities to influence their conditions of work. Vulnerable employment is also often characterized by low pay and difficult working conditions, in which workers' fundamental rights may be undermined.⁹ The share of workers in vulnerable employment by region in the developing world in 2011 ranges from one in five in Central & South-Eastern Europe (non-EU) & CIS (20.6 per cent) to more than three out of four workers in South Asia and Sub-Saharan Africa (77.7 and 76.6 per cent, respectively, see table A12 of ILO, 2012a).

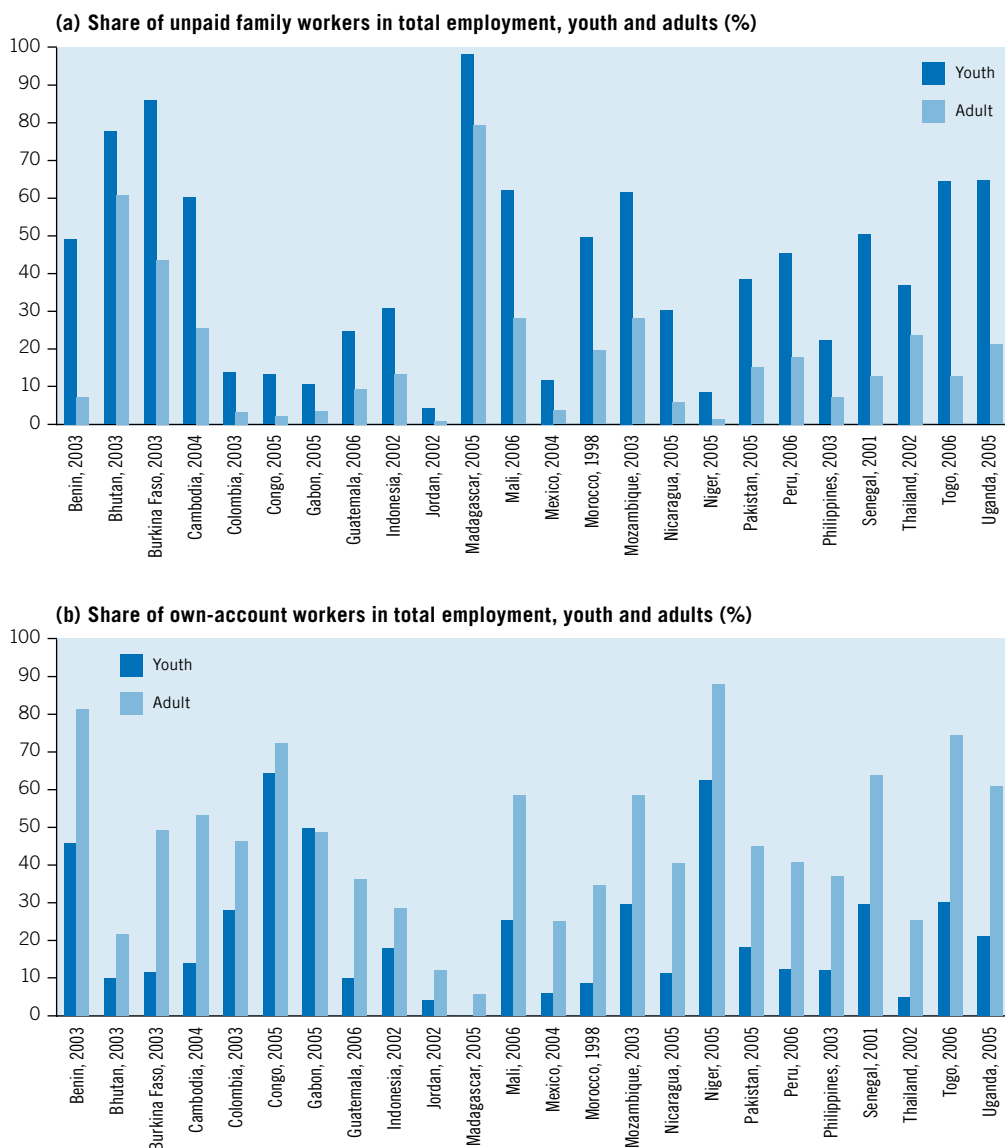
Conversely, the share of paid employment in much of the developing world is often low. Wage and salaried workers account for 48.3 per cent of all employment at the global level but this proportion is as low as 20.9 per cent in South Asia and 22.9 per cent in Sub-Saharan Africa. In addition, even if paid work can be found, the risk of low-wage employment is substantially higher for young workers both in developed and developing economies (Grimshaw, 2011; ILO, 2010b). In part, this is due to the fact that entry-level jobs are more likely to be low-paid, reflecting limited experience of young workers. The question then focuses on how much time it takes for young workers to move to better paid jobs (see box 2). So far, the limited availability of paid work or decent work clearly poses strong barriers in developing economies, particularly in low-income economies.

In developing economies, a relatively high share of youth is likely to engage in unpaid family work, starting their working life supporting (informal) family businesses or farms. Among a sample of 24 developing economies for which breakdowns by age and status in employment are available, the share of contributing family work in youth employment exceeded the corresponding share for adult workers in all countries (see figure 8a). The school-to-work transition may also include unemployment spells, or periods of temporary or casual employment if such opportunities arise while the final station is likely to be own-account work. With the exception of one, in all countries the share of own-account work in total employment was lower for youth than the corresponding share for adults (see figure 8b). In Sub-Saharan Africa, school-to-work transitions typically have a long duration and youth often have to deal with a drawn out period of job search and/or inactivity (Guarcello et al., 2005).

Difficulties that youth face in starting their own enterprises are confirmed by a study based on household data collected by the Inter-American Development Bank (IDB) for 14 Latin American countries. This study showed that only 12.8 per cent of workers between the ages of 16 and 24 were entrepreneurs (Llisterri et al., 2006). The IDB also noted that many businesses were fragile and driven mostly by necessity, and young entrepreneurs in Latin America face major obstacles. They have less capital in the form of skills, knowledge, experience, savings, and access to credit. In addition, they have limited business networks and less access to information about job vacancies. Banks and financial institutions regard them as high risk. At the same time, entrepreneurship programmes that integrate skills training, mentoring and access to capital have demonstrated success in boosting business creation. Evaluations of the *Calificación de Jóvenes Creadores de Microempresas* programme in Peru and *Proyectos Productivos* in Argentina, for example, suggest numerous ingredients for success.

⁹ As noted in ILO (2010a), the vulnerable employment indicator has some limitations: (1) wage and salary employment is not synonymous with decent work, as workers may carry a high economic risk despite the fact that they are in wage employment; (2) the unemployed are not included in the indicator, though they are vulnerable; (3) a worker may be classified in one of the two vulnerable status groups but still not carry a high economic risk, especially in the developed economies. For a discussion see Sparreboom and De Gier (2008).

Figure 8.



Source: ILO calculations based on national household surveys.

These include demand-driven training content; private sector participation in programme design and implementation; appropriate targeting and screening mechanisms to leverage youths' competitive advantages and reduce programme drop-out rates; and access to financial capital and the development of financial and youth-tailored banking instruments that encourage savings and provide a pathway for credit (Salazar-Xirinachs, 2012).

Demographic trends are easing pressure on youth in most regions, giving rise to a "demographic dividend". However, the youth labour force continues to grow in precisely those regions where few opportunities for paid work exist and where working poverty is widespread. In Sub-Saharan Africa, an average of 2.1 million young people will be entering the labour market every year between 2011 and 2015 while in South Asia the youth labour force is projected to grow by an average of 465,000 each year over the same period, reversing a decline in recent years (see table 6).

In both regions, the share of working poor at the internationally adopted level of US\$1.25 a day (at purchasing power parity) is much higher than in other regions. The new estimates of the working poor released by the ILO in 2011 showed that globally 14.8 per cent of workers were living below the poverty line in this year. However, whereas in most regions the proportion of poor workers was below 10 per cent, 35.9 per cent of workers in South Asia and

Box 2. Measuring labour market transitions: ILO's Work4Youth Project

The International Labour Office (ILO) and The MasterCard Foundation have forged a unique partnership to help young people find the path to decent work in a labour market that is markedly different from that of their parents.

The five year, \$14.6 million "Work4Youth" (W4Y) partnership will increase the global awareness of the specific challenges facing young people in the world of work. The partnership supports the collection and dissemination of information on youth labour markets and aims to support youth employment policy making and programme development both nationally and worldwide. It should serve as a good example of how policy-makers, the social partners and the private-sector can engage in the promotion of decent work for young women and men around the world.

Through the W4Y project, the ILO works with government institutions to implement school-to-work transition surveys in 28 countries across five regions. These surveys will increase the knowledge on difficulties facing young people during their transition to decent work, especially in developing countries. The data and information generated by these surveys will be included in a series of analytical national, regional and global reports on youth employment, including the next version of the ILO's Global Employment Trends for Youth planned for early 2013. The reports are designed to assist policy-makers and practitioners in shaping evidence-based programme and policies that promote decent work for youth.

For more information on the project, see website: http://www.ilo.org/employment/areas/youth-employment/WCMS_170261/lang--en/index.htm.

38.1 per cent of workers in Sub-Saharan Africa were counted as the working poor. Data from household surveys also show that youth account for a disproportionate share of poor workers, comprising 23.5 per cent of the working poor for countries with available data, compared with 18.6 per cent of non-poor workers. Many poor workers are trapped in a vicious circle of low levels of education and low-productivity employment (ILO, 2012a).

4. Education and the labour market

Education and training are essential for young people to enter the labour market successfully. They increase the potential productivity and employability of young people, opening up new opportunities in different sectors and occupations. On the back of continuous technological progress and globalization, recent years have seen a continuous shifting of employment opportunities towards higher-skilled occupations. At the same time, and partly in response to these challenges, educational attainment of the labour force has been increasing in most countries. Nevertheless, there are still many countries with large shares of the labour force having only primary education or less. These can be predominantly found in Sub-Saharan Africa, the Middle East and, to a lesser extent, Latin America and Asia (see ILO, 2011a, sections on indicators 5 and 14).

Education as a shield for youth in developed economies

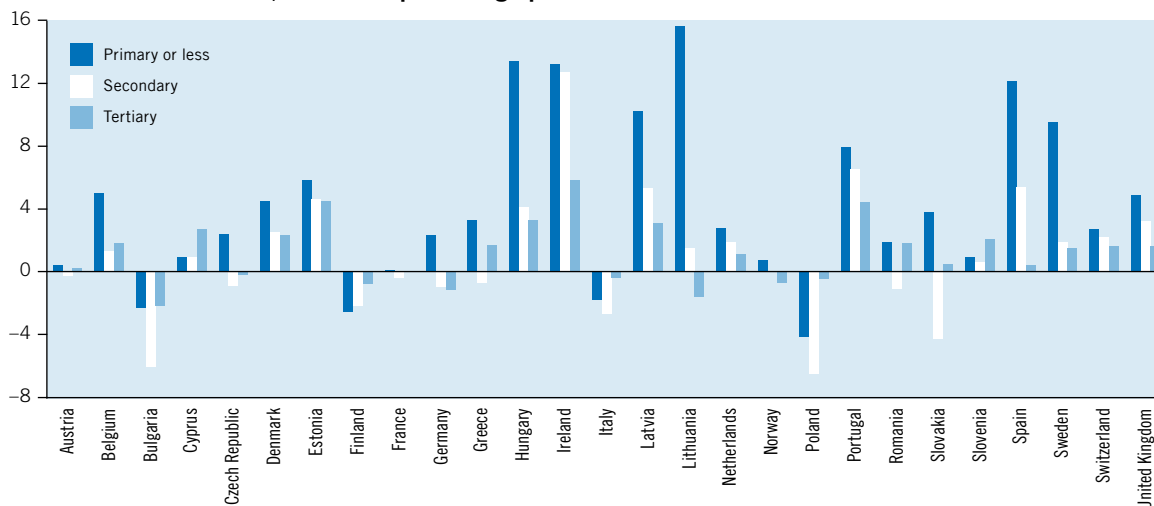
In developed economies, there is a strong link between educational attainment and employment outcomes, and people with higher levels of education enjoy a competitive advantage in the labour market, including higher wage levels. For example, in a sample of 27 developed economies, those with primary-level education or less had the highest unemployment rates in 25 countries in 2010 (see table 7). The labour market advantage of completing higher education was particularly striking in Slovakia. The unemployment rate of people with a primary education or less in this country stood at 44.2 per cent in 2010, versus 14.1 per cent for those with secondary education and 5.8 per cent for those with a tertiary education.

Figure 9 shows changes in unemployment rates by level of educational attainment between 2000 and 2010. As 2010 was the height of the economic crisis in many countries, unemployment rates in 2010 tended to be higher than those in 2000. Individuals with primary education or less fared worst in terms of rising unemployment rates, with increases observed in 23 out of 27 countries. The degree of increase in the unemployment rates between 2000 and 2010 was largest among persons with primary education in 21 countries. Among those with secondary education and tertiary education, unemployment rates rose in 15 and 18 countries, respectively. The differential impact of the economic crisis for people with different levels of education is underlined by OECD (2012), which also notes that skills of more educated people better match labour market demand, even during times of crisis.

Nevertheless, the graduate unemployed were not spared in the face of the economic crisis. In the sample of developed economies shown in figure 9, the unemployment rate of persons with tertiary education rose in 18 countries and declined in eight countries. In two countries, Cyprus and Slovenia, the educated unemployed were the hardest hit, showing the largest increase in the unemployment rate over the period.

Given the stronger labour market position of better-educated people in developed economies, the response of young people to continue their stay in the educational system is understandable and may pay off in the future. However, more education in itself does not result in more jobs, and the scale of the withdrawal of youth from the labour market may result in

Figure 9. Changes in unemployment rates by educational level, selected developed economies, 2000-10 (percentage points)



Source: ILO (2011a).

future imbalances in the labour market. The literature suggests that, despite the positive link between educational attainment and labour market outcomes, even preceding the global economic crisis, skill mismatches such as overeducation were affecting significant proportions of the employed in many developed economies (Groot and Maassen van den Brink, 2000; Korpi and Tälén, 2009; Verhaest and van der Velden, 2010). Workers are considered to be overeducated if the level of education they possess exceeds the skill level required for that job.¹⁰ The incidence of overeducation in the future may be aggravated as more and more younger people substantially extend their education and training periods in these economies.

Not only more but better education and training is needed in developing economies

More and better education and training is critical to advance decent work in developing economies. Nevertheless, more human capital development and higher levels of education do not automatically translate into improved labour market outcomes and more jobs. In many Sub-Saharan African countries higher educational attainment does not lead to lower unemployment rates (Guarcello et al., 2005). Similarly, in many Latin American countries, unemployment rates are highest for those with secondary education (e.g. in Argentina, Bolivia, Brazil, Chile and Mexico) while those with primary and sometimes tertiary education show lower rates (see table 14c of ILO, 2011a). Furthermore, in Pakistan higher educational attainment has been shown to increase the likelihood of unemployment for both adults and youth. These facts notwithstanding, educational attainment has also been positively associated with the likelihood of securing paid employment in the case of adults in this country. These findings suggest that even though more education may not automatically result in more jobs, it allows young people to secure entry into non-vulnerable employment (Sparreboom and Shahnaz, 2007). In other words, the situation that youth in many developing countries are facing is such that education does not guarantee a decent job but such a job is very difficult to secure without education.

¹⁰ The incidence of overeducation can be measured in several ways, for example on the basis of the difference between years of schooling of workers in comparison with the average years of schooling for workers within an occupation, but it can also be measured based on self-reports by individual workers on the rate of skill utilization. According to 25 studies reviewed by Groot and Maassen van den Brink (2000), the incidence of overeducation varies from 10 to 42 per cent.

Several factors explain why more education does not automatically lead to more jobs for young people in developing economies. These include small formal sectors, skills mismatches, the need to work (in particular for the poor) and aspirations of youth (in particular of the well-educated). In addition, the particular characteristics of developing economies pose special challenges for education and training systems and their responsiveness to labour market needs. In developing economies where structural change is deep, education and training needs to keep up with this change in order to supply the skills necessary for economic development and creation of decent work (ILO, 2008). At the same time, aggregate demand management has to create the conditions for structural transformation to successfully lead to strong private investment and job creation in more advanced sectors. To find the right balance between demand and supply of skills can be a challenging task (ADB, 2007). If historical trends are taken as benchmarks, several Asian countries would be considered to raise educational attainment levels too fast. At the same time, education can serve as a driver of development, by empowering people to develop or adopt new technologies and diversify production structures. Recent ILO research found that countries that have managed to successfully catch up with developed economies, such as the Republic of Korea, typically experienced a transformation of the education system that preceded the transformation of the production structure (Nübler, 2012).

In this respect, proper labour market information is necessary to facilitate both the role of education in meeting current labour demand and in facilitating change. With regard to the first role, it is important that expectations of the contribution of education to structural change are based on an empirical understanding of what workers are likely to do with their education. In other words, analysis of trends in employment, including the sectoral distribution and wage developments, should inform education and training policies. Information requirements are likely to increase as the economy expands, transforms and integrates with global markets, and skills development systems become more complex. If skills development policies are used as a driver of development, it becomes more important that information is produced on future skills requirements (early identification of skills), and skills policies are synchronized with other policies through appropriate institutional structures and arrangements.

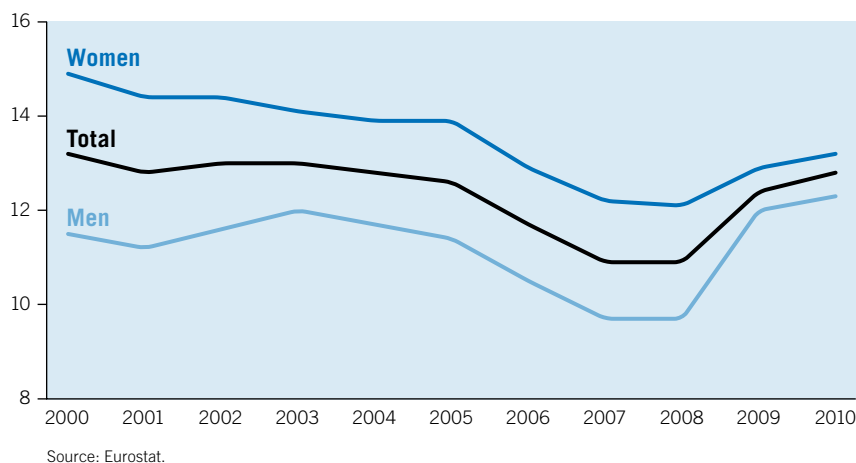
The crisis has brought an increased detachment of youth from the labour market

Young people that are neither in employment nor in education have become a growing concern for policy-makers, in particular in developed economies. This group, called “NEET” (not in education, employment or training), has been rapidly increasing, especially since the onset of the crisis. The concern with NEETs partly results from the fact that this group reflects a growing detachment of young people from the labour market. Labour statistics such as unemployment or participation rates do not capture what youth are doing outside the labour market. If youth are economically inactive (outside the labour force) because they are in education or training, they invest in their skills and in this way improve their future employability. However, youth who are not employed and also not in education or training risk labour-market and social exclusion.

The share of youth not in employment or education/training as a percentage of the youth population (the NEET rate) is non-negligible in developed economies. In Japan, New Zealand and the United States, for example, the NEET rates were 9.7, 13.1 and 15.6 per cent in 2010 respectively whereas the average for the OECD was 12.8 per cent in this year.¹¹ As shown in figure 10, the NEET rate in the European Union at the beginning of the 2000s was just

¹¹ See http://www.stats.govt.nz/browse_for_stats/income-and-work/employment_and_unemployment/NEET-paper.aspx.

Figure 10. Youth NEET rates in the European Union, 2000-10, by sex (%)



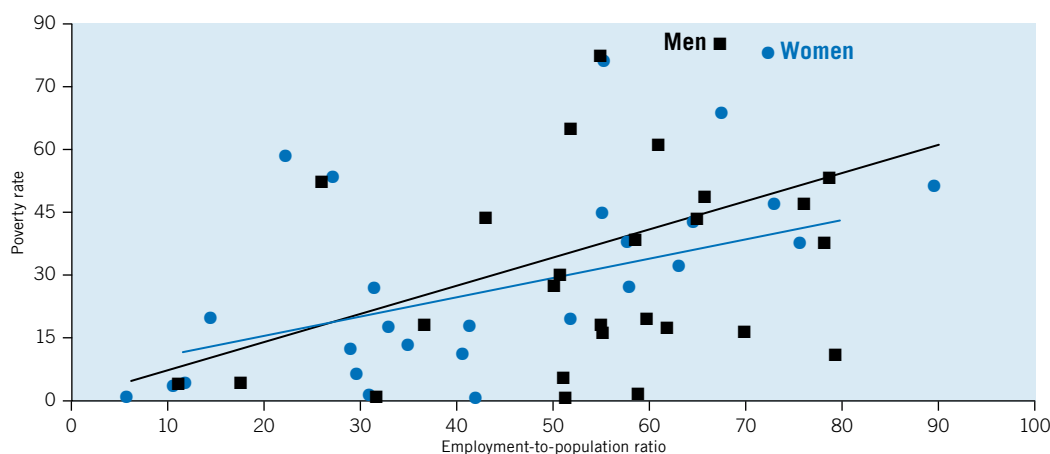
above 13 per cent but came down to 10.9 per cent before the global economic crisis in 2007 and 2008. However, due to the global economic crisis, the downward trend in the NEET rate in the European Union was broken, resulting in an increase by 1.9 percentage points in the average rate between 2008 and 2010. The rate in the latter year exceeded 15 per cent in Bulgaria, Ireland, Italy, Latvia, Romania and Spain. The crisis-induced increase in the European Union was much greater for young men, at 2.6 percentage points compared to 1.1 percentage points for young women. The convergence between male and female NEET rates in the most recent years in part reflects the stronger impact of the crisis on male youth unemployment in developed economies including the European Union (see tables 3a and 3b).

As both the unemployed and the economically inactive are included in the NEET group, the crisis-induced increase of the NEET rate in Europe is consistent with the effects of the crisis on the unemployment rate as well as the withdrawal of youth from the labour force in many developed economies discussed in earlier sections. However, the fact that many youth continue their stay in the education system may appear contradictory with the increase in the NEET rate. This may be explained by the different profile of NEETs in comparison with the overall youth population. Contrary to those extending their stay in the education system, many of whom are already among the better-educated, young people with a low education level are more likely to belong to the NEET group, as are those with a low household income and those with an immigrant background (EFILWC, 2011). Accordingly, part of the rise in the NEET rate in recent years may have been due to higher-educated workers crowding out lower-educated ones. Nevertheless, the economic crisis also increased the risk for better-educated youth to end up in the NEET group (EFILWC, 2012).

In developing economies, the NEET group is equally important but often reflects a different reality. As employment in many developing economies is at least partially poverty-driven, and resources for education are more limited, youth employment-to-population ratios (EPRs) tend to be higher in poorer countries. This is illustrated in figure 11, which shows poverty rates (at the US\$1.25 a day level) and EPRs for a sample of developing economies (see also table 8). This relationship is much stronger for young women, in part because of the U-shaped pattern of female labour force participation that was discussed in an earlier section. In other words, at lower poverty levels, young women may withdraw from the labour market, but this is less likely to be the case for young men.

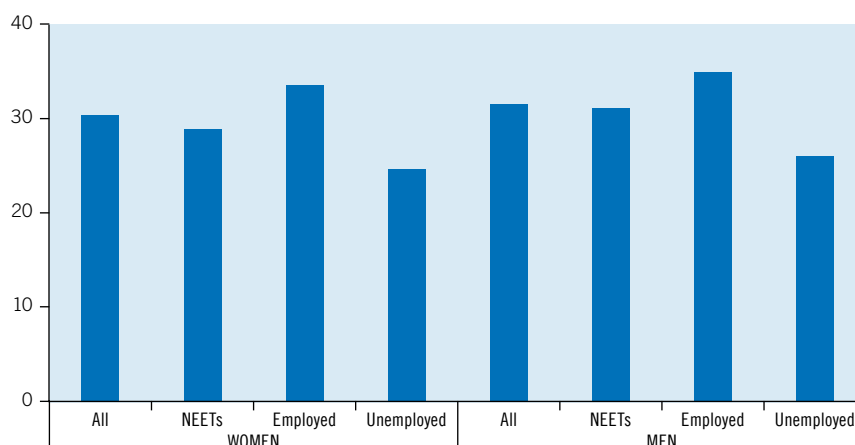
The profile of young people who are neither in education nor in employment in developing economies is different from that of the employed. As shown in figure 12, the poverty rate among the NEETs is lower than the poverty rate of the employed. Moreover, for both young men and young women, poverty rates are lowest for the unemployed, which are part of the NEET group. This suggests that employment in these developing countries is primarily driven by lack of adequate alternative sources of income. Even though the differences

Figure 11. Youth employment and poverty in selected developing economies, by sex (%)



Note: The estimated coefficient of the regression line for young women is significant at the 99 per cent confidence level.
Source: ILO (employment) and World Bank (poverty) calculations based on national household surveys (see table 8 for a list of countries and years).

Figure 12. Average poverty rates of NEETs, employed and unemployed youth in selected developing economies, by sex (%)



Note: NEETs are youth neither in education nor in employment, including the unemployed.
Source: ILO (NEET) and World Bank (poverty) calculations based on national household surveys (see table 8 for a list of countries and years).

in poverty rates are significant, the figure also shows that all groups have considerable poverty rates even at the low level of the internationally agreed US\$1.25.¹²

The average NEET rate in the 24 developing economies in figures 11 and 12 is 12.4 per cent for young men. In other words, even if many young men in developing economies have little alternative but to work, the overall rate is not lower than in the European Union, and a considerable share of young men are not preparing for the labour market. For young women, the average NEET rate is much higher (28.1 per cent).

A number of countries have started to take measures to address this phenomenon. For example, the response of the United States Government to the economic crisis included the expansion of tax credits to employers hiring “disconnected” youth, meaning those youth who were neither in employment nor in education (Bell and Blanchflower, 2011). In Latin America a wide variety of initiatives and projects have been put in place to address the NEET challenge (Salazar-Xirinachs, 2012). In many European countries, measures have been taken ranging from tackling early school leaving to facilitating the transition to employment, often targeting

¹² The US\$1.25 a day was designed to be representative of the poverty lines in the poorest countries, and therefore is necessarily relatively low. Many countries use higher poverty lines for national policy-making purposes.

specific subgroups of the NEET group (EFILWC, 2012). In the Netherlands, for example, the “Drive to reduce drop-out rates” encourages the development of local programmes to prevent drop-out, including long-term performance agreements between schools, municipalities and the national government, in partnership with business and youth care workers, and a funding policy linked to the reduction of the number of early school leavers.¹³ A number of countries also have “youth guarantees” in place which aim to ensure that young people have a job offer or an educational or related opportunity within a certain timeframe, or offer specialist job search assistance. According to a recent policy review, NEET-relevant policies based on partnership approaches with stakeholders outside the public sector are likely to be particularly effective (EFILWC, 2012).

¹³ See <http://www.aanvalopschooluitval.nl/english.php>.

5. Youth employment policies¹⁴

As youth unemployment rates are projected to remain essentially unchanged in 2012, and most regions face major youth employment challenges, youth employment policies warrant the highest priority. To address these challenges, countries have already enacted a wide range of policies targeted specifically at young, first-time jobseekers.¹⁵ To tackle the youth unemployment crisis successfully, these measures need to be stepped up and extended also to those countries that have not yet enacted policies in this respect. Important areas for interventions include: (i) macroeconomic and sector policies, (ii) active labour market policies and programmes, (iii) labour standards and social protection for young people, (iv) social dialogue and partnerships for youth employment, and (v) support for labour market information and analysis systems, as summarized below.¹⁶

Macroeconomic and growth policies: ultimately, job growth will not come from labour market interventions alone. Macroeconomic and fiscal policies should include or enhance measures that support employment generation, bring about a sustained job recovery and finance the necessary investments in youth employment promotion. Youth employment is a rising priority in national policy agendas but often it is insufficiently translated into action, and funding is often limited and resources underestimated. Globally, progress in rebalancing world demand based on effective measures by the G20, and stability in the euro area are essential for paving the way to stronger output and employment growth. In this respect, austerity measures currently implemented in a wide range of developed economies bode ill for a quick recovery of youth labour markets (ILO, 2012a). Growth policies can also influence youth employment by encouraging economic diversification and productive transformation through sectoral strategies, removing constraints on private sector investment and growth, in particular for small enterprises.

Active labour market policies and programmes: a series of different active labour market programmes and policies can be tailored for specific needs of the youth. These include: (i) direct employment generation (promoting small enterprise development, cooperatives, wage subsidies, public works, guaranteed job schemes, etc.); (ii) labour exchanges or employment services facilitating young people's transition into the labour market (e.g. job brokerage and counseling offices, linking employers with educational institutions); and (iii) skills development programmes. It is particularly important to:

- Address barriers to job growth: the lack of labour demand prompted by insufficient or job-poor growth has a significant impact on unemployment and leads to discouragement,

¹⁴ For a detailed discussion of policy areas, see the ILO Report "The Youth Employment Crisis: Time for Action" (http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_175421.pdf). The forthcoming 2012 International Labour Conference will discuss the youth employment crisis and update the policy conclusions to address the challenge. The latest policy conclusions date from the 2005 International Labour Conference and are included in the Resolution concerning youth employment (<http://www.ilo.org/public/english/standards/relm/ilc/ilc93/pdf/resolutions.pdf>).

¹⁵ For an overview of policy measures enacted by member countries to address the employment challenge caused by the crisis see the ILO/World Bank "Inventory of Policy Responses to the Financial and Economic Crisis" online tool available at: <http://www.ilo.org/dyn/crisis-inventory/f?p=17020:2:257694020209059>.

¹⁶ For an evaluation of lessons learned in youth employment programmes, see Chapter 4 of ILO (2010c). Annex 3 in the current report provides an inventory of crisis response interventions directly affecting youth employment, by country.

particularly among youth. Active labour market measures, such as the development of public employment services, wage and training subsidies or tax cuts can incentivize employers to hire young people and counteract the excess supply of young workers in times of crisis.

- Address skill mismatches: programmes that aim to offset the mismatch of technical skills among youth, such as vocational training programmes, re-training of unemployed or discouraged youth, workplace training schemes, the creation or improvement of apprenticeship systems, entrepreneurship training programmes, soft and life skills training programmes for disadvantaged youth, and special programmes that link employers with educational institutions which can facilitate young people's transition into the labour market.
- Adjusting the focus of technical and vocational education to make it relevant to the requirements of companies and the labour market is another essential orientation.
- Promote entrepreneurship: enabling motivated youth access to start-up capital and facilitating a broad range of services, including high quality mentoring, can be effective ways of reducing precarious and informal employment among young people and may also propel job creation.

Labour standards and social protection for young people: decent employment is not only about generating any jobs, but also about improving the quality of jobs. Poor young workers work long hours, often in unsafe conditions and still are unable to move their families out of poverty. Hence employment policies must not merely focus on creating jobs but also on ensuring adequate wages and working conditions. Wage policies, for instance, are important from both an economic and a human rights perspective. A decent remuneration can enable workers to provide for themselves (and their families) and help fulfill the basic human right to a decent standard of living which includes food, clothing, housing and medical care. Raising the incomes of workers – including young workers – also increases domestic demand which, in turn, encourages economic growth and recovery.

A particular concern in this respect is the inadequate social protection for young people, in part because they are engaged in non-standard forms of employment. As a result, better strategies are needed to improve and expand social protection programmes for young people, and tailor labour market reforms for their specific needs. It is also important that such social protection measures are not viewed as a cost to society but rather as an investment (Cichon et al., 2006). Investing in young persons has significant positive impacts on human development and productivity.

Social dialogue and partnerships for youth employment: equally important is the establishment of broad-based partnerships to turn commitment to youth employment into reality. Partnerships among governments, employers' organizations, trade unions and other organizations can be instrumental in determining the most appropriate action to be taken at national and local levels for the promotion of decent work for young people. To bring high youth unemployment rates down, it is essential that employers, unions and governments not only dialogue together about how to achieve a socio-economic recovery, but mobilize to develop specific projects and interventions, including in partnership with young people.

Social pacts can be an effective strategy to articulate labour market policies that can create positive synergies between economic and social development. They are especially well-suited to arrive at optimal solutions in macroeconomic policy, in strengthening productivity, job and income security, and in supporting employment-generating enterprises. Social dialogue can be fostered further when governments strive also to repair and regulate their financial systems. To this end, it is critical that policymakers reduce the fear and uncertainty that is hindering private investments so that the private sector can re-start to be the main engine of global job creation, including for youth (ILO, 2012a).

Supporting strong labour market information and analysis systems: support in the areas of data collection, tabulation, analysis and dissemination of labour market information,

and strengthening institutional relationships between producers and users of information and analysis provides a solid basis to monitor labour markets, and design and implement effective policies. More information is needed particularly on the pathways of youth to decent work.

In sum, to prevent the emergence of a “lost generation”, it is important that youth employment is prioritized on national policy agendas, and countries establish or develop integrated strategies aimed to ensure long-term, sustained and concerted action for the promotion of decent work for young people. Assigning priority to youth employment requires a coherent policy framework, with measurable targets and achievable outcomes that addresses youth employment in national development strategies and employment policies.

References

- Asian Development Bank (ADB). 2007. *Asian Development Outlook 2007* (Manila).
- Addison, J.T.; Teixeira, P. 2003. "The economics of employment protection", in *Journal of Labor Research*, Vol. 24, pp. 85–129.
- Arumlampam, W; Gregg, P.; Gregory, M. 2001. "Unemployment scarring", in *Economic Journal*, Vol. 111, No. 475, pp. 577–584.
- Bassanini, A.; Ernst, E. 2002. "Labour market regulation, industrial relations and technological regimes: A tale of comparative advantage", in *Industrial and Corporate Change*, Vol. 11, No. 3, pp. 391–426.
- Begum, S.; Lawson, D. 2009. *The influence of gender on labour market outcomes of the 'poorest of the poor'*, paper presented at the annual EALE Conference (Tallinn).
- Bell, D.N.F.; Blanchflower, D.G. 2011. "Young people and the great recession", *IZA Discussion Paper No. 5674* (Bonn).
- Bentolila, S. et al. 2010. "Two-tier labor markets in the Great Recession: France vs. Spain", *IZA Discussion Paper No. 5340* (Bonn).
- Berg, J.; Cazes, S. 2008. "Policymaking gone awry: The labour market regulations of the Doing Business Indicators", in *Comparative Labor Law and Policy Journal*, Vol. 29, No. 4, pp. 349–381.
- Bernal-Verdugo, L.E.; Furceri, D.; Guillaume, D. 2012. "Labor market flexibility and unemployment: New empirical evidence of static and dynamic effects", *IMF Working Paper No. 64* (Washington, DC).
- Bertola, G.; Boeri, T.; Cazes, S. 2000. "Employment protection in industrialized countries: The case for new indicators", in *International Labour Review*, Vol. 139, No. 1, pp. 57–72.
- Boeri, T. 2011. "Institutional reforms and dualism in European labor markets", in *Handbook of Labor Economics*, Volume 4b, Chapter 13 (Amsterdam, Elsevier).
- Botero, J.C. et al. 2004. "The regulation of labor", in *Quarterly Journal of Economics*, Vol. 119, No. 4, pp. 1339–1382.
- Burgess, S.; Propper C. Rees H.; Shearer A. 2003. "The Class of 1981: The Effects of Early Career Unemployment on Subsequent Unemployment Experiences", in *Labour Economics* Volume 10, No. 3, pp. 291–309.
- Cazes, S.; Tonin, M. 2010. "Employment protection legislation and job stability: A European cross-country analysis", in *International Labour Review*, Vol. 149, No. 3, pp. 261–285.
- Dasgupta, P.; Goldar, B. 2005. *Female labour supply in rural India: An econometric analysis*, Institute of Economic Growth (Delhi).
- Dolado, J.J.; García-Serrano, C.; Jimeno, J.F. 2002. "Drawing lessons from the boom of temporary jobs in Spain", in *Economic Journal*, Vol. 112, No. 480, pp. 270–295.
- Durand, J.D. 1975. *The labor force in economic development* (Princeton, Princeton University Press).
- Eichhorst, W.; Marx, P. 2011. "Reforming German labour market institutions: A dual path to flexibility", in *Journal of European Social Policy*, Vol. 21, No. 1, pp. 73–87.
- European Commission. 2011. *Youth employment measures. European Employment Observatory Review* (Luxembourg)
- European Foundation for the Improvement of Living and Working Conditions (EFILWC). 2011. *Young people and NEETs in Europe: First findings* (résumé) (Dublin).
- European Foundation for the Improvement of Living and Working Conditions (EFILWC). 2012. *Recent policy developments related to those not in employment, education and training (NEETs)* (Dublin).
- Fairlie, R.; Kletzer L.G. 2003. "The Long-term Costs of Job Displacement among Young Workers", in *Industrial and Labour Relations Review*, Vol. 56, No. 4, pp. 682–698.

- Faridi, M.Z.; Chaudry, I.S.; Malik, M.S. 2011. "Why women are self-employed? Empirical evidence from Pakistan", in *International Journal of Economics and Finance*, Vol. 3, No. 1, pp. 198–207.
- Fatima, A.; Sultana, H. 2009. "Tracing out the U-shape relationship between female labor force participation rate and economic development for Pakistan", in *International Journal of Social Economics*, Vol. 36, No. 1/2, pp. 182–198.
- Fella, G. 2005. "Termination restrictions and investment in general training", in *European Economic Review*, Vol. 49, No. 6, pp. 1479–1499.
- Forrier, A.; Sels, L. 2003. "Temporary employment and employability: Training opportunities and efforts of temporary and permanent employees in Belgium", in *Work, Employment & Society*, Vol. 17, No. 4, pp. 641–666.
- Freeman, R.B. 2005. "Labour market institutions without blinders: The debate over flexibility and labour market performance", in *International Economic Journal*, Vol. 19, No. 2, pp. 129–145.
- Goldin, C. 1995. "The U-shaped female labor force function in economic development and economic history", in T.P. Schultz (ed.): *Investment in women's human capital* (Chicago, University of Chicago Press), pp. 61–90.
- Gregg, P.; Tominey, E. 2005. "The wage scar from male youth unemployment", in *Labour Economics*, Vol. 12, No. 4, pp. 487–509.
- Grimshaw, D. 2011. "What do we know about low-wage work and low-wage workers? Analysing the definitions, patterns, causes and consequences in international perspective", *Conditions of Work and Employment Series* No. 28 (Geneva, ILO).
- Groot, W.; Maassen van den Brink, H. 2000. "Overeducation in the labor market: A meta-analysis", in *Economics of Education Review*, Vol. 19, No. 2, pp. 149–158.
- Guarcello, L. et al. 2005. "School to work transition in Sub-Saharan Africa: An overview", *Working Paper* No. 15, Understanding Children's Work (UCW) Project (Rome).
- Günter, S. 2009. "China's Employment Crisis: A stimulus policy for change?", in *Journal of Current Chinese Affairs*, Volume 38, No.2, pp. 121–144.
- Ha, B.; McInerney C.; Tobin S.; Torres R. 2010. "Youth Employment in Crisis", *International Institute for Labour Studies Discussion Paper* No. 201 (Geneva).
- Heckman, J.J.; Pagés, C. 2000. "The cost of job security regulation: Evidence from Latin American labor markets", in *Economia, The Journal of the Latin American and Caribbean Economic Association*, Vol. 1, No. 1, pp. 109–154.
- Heltberg, R., N. Hossain; Reva A.; Turk C. 2012. "Anatomy of Coping: Evidence from People Living through the Crises of 2008–11", *Policy Research Working Paper* No. 5957, (Washington, DC).
- Howell, D.R. et al. 2007. "Are protective labour market institutions at the root of unemployment? A critical review of the evidence", in *Capitalism and Society*, Vol. 2, No. 1, pp. 1–71.
- International Labour Office (ILO). 2008. *Skills for improved productivity, employment growth and development*, Background report, International Labour Conference, 97th Session, Geneva, 2008.
- ILO. 2009. *Protecting People, Promoting Jobs: A Survey of Country Employment and Social Protection Policy Responses to the Global Economic Crisis in 54 Countries*, ILO Report to the G20 Leaders' Summit, Pittsburgh, 24–25 September, Geneva, 2009.
- ILO. 2010a. *Global Employment Trends 2010* (Geneva).
- ILO. 2010b. *Global Wage Report 2010/11. Wage policies in times of crisis* (Geneva).
- ILO. 2010c. *Global Employment Trends for Youth. Special issue on the impact of the global economic crisis on youth* (Geneva).
- ILO. 2010d. *Republic of Korea's Response to the Crisis*, G20 Country Brief on the Republic of Korea.
- ILO. 2010e. *Employment and Social Protection Policies from Crisis to Recovery and Beyond: A review of experience*, ILO report to the G20 Labour and Employment Ministers Meeting, Washington, D.C., 20–21 April, Geneva, 2010.
- ILO. 2011a. *Key Indicators of the Labour Market, 7th edition* (Geneva).
- ILO. 2011b. "Gender equality, employment and part-time work in developed economies", in *Key Indicators of the Labour Market, 7th edition* (Geneva).
- ILO. 2011c. *Global Employment Trends for Youth: 2011 Update* (Geneva).
- ILO. 2011d. *Economically Active Population, Estimates and Projections, 6th edition* (Geneva).
- ILO. 2011e. *Policy Options to Support Young Workers during Economic Recovery*, ILO Policy Brief, Geneva, 2011.
- ILO. 2011f. *World of Work Report 2011: Making Markets Work for Jobs* (Geneva).
- ILO. 2012a. *Global Employment Trends 2012. Preventing a deeper jobs crisis* (Geneva).

- ILO. 2012b. *The Youth Employment Crisis: Time for Action*, Report of the Director-General, International Labour Conference, 101st Session, Geneva, 2012.
- ILO; Organisation for Economic Co-operation and Development (OECD). 2011. *Giving youth a better start. A policy note for the G20 Meeting of Labour and Employment Ministers* (Geneva and Paris).
- Kahn, L.M. 2007. "The impact of employment protection mandates on demographic temporary employment patterns: International microeconomic evidence", in *Economic Journal*, Vol. 117, No. 521, pp. 333–356.
- Kahn, L.B. 2010. "The long-term labor market consequences of graduating from college in a bad economy", in *Labour Economics*, Vol. 17, No. 2, pp. 303–316.
- Kompier, M. et al. 2009. "Employment contracts: Cross-sectional and longitudinal relations with quality of working-life, health and well-being", in *Journal of Occupational Health*, Vol. 51, No. 3, pp. 193–203.
- Korpi, T.; Tålin, M. 2009. "Educational mismatch, wages and wage growth: Overeducation in Sweden, 1974–2000", in *Labour Economics*, Vol. 16, No. 2, pp. 183–193.
- Lazear, E.P. 1990. "Job security provisions and employment", in *Quarterly Journal of Economics*, Vol. 105, No. 3, pp. 699–726.
- Leonardi, M.; Pica, G. 2007. "Employment protection legislation and wages", *IZA Discussion Paper* No. 2680 (Bonn).
- Leonardi, M.; Pica, G. 2010. "Who pays for it? The heterogeneous wage effects of employment protection legislation", *IZA Discussion Paper* No. 5335 (Bonn).
- Llisterri, J.J.; Kantis, H.; Angelelli, P.; Tejerina, L. 2006. "Is Youth Entrepreneurship a Necessity or an Opportunity? A First Exploration of Household and New Enterprise Surveys in Latin America", *Technical Papers Series* (Washington, D.C., Inter-American Development Bank).
- Mammen, K.; Paxson, C. 2000. "Women's work and economic development", in *Journal of Economic Perspectives*, Vol. 14, No. 4, pp. 141–164.
- Morsy, H. 2012. "Scarred generation", in *Finance & Development*, Vol. 49, No. 1, Mar. 2012.
- Noelke, C. 2011. "The consequences of employment protection legislation for the youth labour market", *Mannheimer Zentrum für Europäische Sozialforschung Working Paper* No. 144 (Mannheim).
- Nübler, I. Forthcoming 2012. *Capabilities for productive transformation and employment* (Geneva, ILO).
- OECD. 2012. *Education Indicators in Focus 2012/01* (Paris).
- Patel, M.; Thapa S. 2010. "Impact of the Global Economic Crisis on Children", UNICEF Update on Real-time Monitoring Efforts in East Asia and the Pacific Islands (Bangkok, UNICEF).
- Pissarides, C. 2001. "Employment protection", in *Labour Economics* Vol. 8, No. 2, pp. 131–159.
- Salazar-Xirinachs, J.M. 2012. "Generation Ni/Ni: Latin America's Lost Youth", *Americas Quarterly*, pp. 108–113.
- Samuels, F.; Gavrilovic M.; Harper C.; Niño-Zarazúa M. 2011. "Food, Finance and Fuel: The Impacts of the Triple F Crisis in Nigeria, with a Particular Focus on Women and Children – Adamawa State Focus", Overseas Development Institute (London).
- Scarpetta, S.; Sonnet, A.; Manfredi, T. 2010. "Rising youth unemployment during the crisis: How to prevent negative long-term consequences on a generation", *Social, Employment and Migration Paper* No. 106 (Paris, OECD).
- Sparreboom, T.; De Gier, M.P.F. 2008. "Assessing vulnerable employment: The role of status and sector indicators in Pakistan, Namibia and Brazil", *Employment Working Paper* No. 13 (Geneva, ILO).
- Sparreboom, T.; Shahnaz, L. 2007. "Assessing labour market vulnerability among young people", in *Pakistan Development Review*, Vol. 46, No. 3, pp. 193–213.
- Verhaest, D.; van der Velden, R.K.W. 2010. "Cross-country differences in graduate overeducation and its persistence", *Research Memorandum* 2010/7, Research Centre for Education and the Labour Market (Maastricht).
- United Nations. 2009. *The Reactions of the Governments of the Americas to the International crisis: An overview of policy measures up to June 30* (ECLAC, Santiago).
- World Bank. 2011. *The Jobs Crisis: Household and Government Responses to the Great Recession in Eastern Europe and Central Asia* (Washington, D.C.).

Annex 1. World and regional tables

Unless the source is stated, the source of all tables is ILO, Trends Econometric Models, April 2012.

2011 are preliminary estimates.

2012p–2016p are projections; for details on methodology, see Annex 2 and ILO (2012a).

Table 1. Global unemployment and unemployment rates, youth (15–24), adult (25+) and total (15+), 2007 to 2012

	2007	2008	2009	2010	2011	2012p
Youth unemployment (millions)	70.3	70.8	75.4	74.8	74.5	74.6
Adult unemployment (millions)	99.7	104.6	121.2	121.1	121.5	127.9
Total unemployment (millions)	169.9	175.3	196.6	195.9	196.0	202.4
Youth unemployment rate (%)	11.6	11.7	12.6	12.7	12.6	12.7
Adult unemployment rate (%)	4.0	4.1	4.7	4.6	4.5	4.7
Total unemployment rate (%)	5.4	5.5	6.2	6.1	6.0	6.1
Ratio youth-to-adult unemployment rate	2.9	2.9	2.7	2.8	2.8	2.7

p = projection

Table 2a. Youth unemployment rates 2000 and 2007–2016, by region (%)

	2000	2007	2008	2009	2010	2011	2012p	2013p	2014p	2015p	2016p
WORLD	12.7	11.6	11.7	12.6	12.7	12.6	12.7	12.7	12.7	12.7	12.7
Developed Economies & European Union	13.5	12.5	13.3	17.3	18.1	18.0	18.0	17.7	17.2	16.5	16.0
Central & South-Eastern Europe (non-EU) & CIS	20.0	17.5	17.0	20.5	19.4	17.6	17.5	17.6	17.5	17.5	17.5
East Asia	9.3	8.0	9.1	9.3	8.9	9.0	9.3	9.4	9.6	9.7	9.8
South-East Asia & the Pacific	13.2	14.9	14.2	13.9	13.6	13.5	13.7	14.0	14.2	14.2	14.3
South Asia	10.1	9.0	8.6	9.1	10.2	9.8	9.8	9.7	9.7	9.8	9.8
Latin America & the Caribbean	15.8	14.1	13.7	15.6	14.5	14.3	14.3	14.4	14.5	14.5	14.6
Middle East	24.0	24.8	25.7	25.2	25.4	26.5	26.9	27.5	28.0	28.6	29.0
North Africa	28.7	23.8	23.0	23.6	23.1	27.9	27.8	27.6	27.3	26.9	26.7
Sub-Saharan Africa	12.9	11.5	11.5	11.5	11.4	11.5	11.5	11.5	11.4	11.4	11.4

Table 2b. Change in youth unemployment and unemployment rates between 1998 and 2008 and between 2008 and 2011, by region

	Change in youth unemployment (%), 1998–2008	Change in youth unemployment rate (percentage point), 1998–2008	Change in youth unemployment (%), 2008–11	Change in youth unemployment rate (percentage point), 2008–11
WORLD	0.7	-0.6	5.3	0.9
Developed Economies & European Union	-12.1	-1.0	26.5	4.7
Central & South-Eastern Europe (non-EU) & CIS	-22.4	-5.5	-3.8	0.6
East Asia	-5.4	-0.5	-4.6	-0.1
South-East Asia & the Pacific	24.0	2.0	-6.4	-0.7
South Asia	7.5	0.1	10.2	1.3
Latin America & the Caribbean	-8.9	-1.8	4.0	0.6
Middle East	30.9	1.8	1.7	0.9
North Africa	-4.2	-3.4	18.8	4.9
Sub-Saharan Africa	17.8	-1.3	6.1	-0.1

Table 3a. Change in male youth unemployment and unemployment rates between 1998 and 2008 and between 2008 and 2011, by region

	Change in youth unemployment (%), 1998–2008	Change in youth unemployment rate (percentage point), 1998–2008	Change in youth unemployment (%), 2008–11	Change in youth unemployment rate (percentage point), 2008–11
WORLD	1.9	-0.6	4.9	0.8
Developed Economies & European Union	-6.8	-0.1	26.3	5.0
Central & South-Eastern Europe (non-EU) & CIS	-19.6	-5.3	-4.5	0.4
East Asia	-1.6	-0.8	-3.3	-0.1
South-East Asia & the Pacific	24.2	1.7	-7.2	-0.9
South Asia	7.4	-0.1	8.8	1.0
Latin America & the Caribbean	-13.0	-1.6	4.6	0.6
Middle East	26.2	1.1	1.2	0.7
North Africa	-10.0	-4.3	13.0	3.1
Sub-Saharan Africa	18.5	-1.0	6.0	-0.1

Table 3b. Change in female youth unemployment and unemployment rates between 1998 and 2008 and between 2008 and 2011, by region

	Change in youth unemployment (%), 1998–2008	Change in youth unemployment rate (percentage point), 1998–2008	Change in youth unemployment (%), 2008–11	Change in youth unemployment rate (percentage point), 2008–11
WORLD	-0.9	-0.6	5.8	1.0
Developed Economies & European Union	-18.2	-2.0	26.8	4.4
Central & South-Eastern Europe (non-EU) & CIS	-26.1	-5.7	-2.8	0.9
East Asia	-10.8	-0.5	-6.6	-0.1
South-East Asia & the Pacific	23.7	2.3	-5.3	-0.6
South Asia	7.7	0.4	13.6	1.9
Latin America & the Caribbean	-4.7	-2.4	3.6	0.6
Middle East	42.0	4.0	2.7	1.1
North Africa	5.7	-1.1	27.3	9.1
Sub-Saharan Africa	17.1	-1.7	6.2	0.0

Table 4. Gross enrolment ratio in tertiary education, by region, 2000–09 (%)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
WORLD	18.9	20.0	21.5	22.5	23.4	24.0	24.9	25.9	26.5	27.1
North America & Western Europe	59.5	60.8	66.2	68.1	68.6	69.2	69.4	69.5	70.2	72.1
Central & Eastern Europe	42.6	46.4	50.0	51.9	55.0	57.8	60.2	62.5	64.6	65.0
Central Asia	20.7	22.4	23.8	24.8	25.5	25.4	25.7	25.5	25.8	24.7
East Asia & the Pacific	15.5	17.2	19.2	20.9	22.4	23.3	24.4	25.4	26.3	27.8
South & West Asia	8.5	8.9	9.2	9.6	10.0	10.1	10.9	12.5	12.8	
Latin America & the Caribbean	22.7	24.4	26.1	27.5	29.2	30.9	33.2	35.4	36.9	37.2
Arab States	19.1	19.1	19.0	19.3	20.1	20.8	21.0	21.5	22.0	22.4
Sub-Saharan Africa	4.1	4.4	4.7	5.1	5.3	5.5	5.6	5.9	6.1	6.3

Source: UNESCO Institute for Statistics, online database, table 14.

Table 5. Gender gaps in youth labour force participation rates, by region, 1991, 2001 and 2011

	Male (%)			Female (%)			Gap (percentage point)		
	1991	2001	2011	1991	2001	2011	1991	2001	2011
WORLD	67.0	60.4	56.3	51.0	44.3	40.7	16.1	16.0	15.6
Developed Economies & European Union	58.8	54.4	49.7	52.4	49.1	45.6	6.4	5.3	4.1
Central & South-Eastern Europe (non-EU) & CIS	56.7	48.9	49.8	44.2	35.3	34.6	12.4	13.6	15.2
East Asia	75.3	60.9	59.0	78.0	68.1	61.6	-2.7	-7.3	-2.5
South-East Asia & the Pacific	65.6	64.0	59.3	52.5	49.4	45.1	13.2	14.6	14.2
South Asia	70.3	66.2	57.6	32.5	28.7	23.4	37.8	37.5	34.1
Latin America & the Caribbean	71.3	66.4	62.6	39.6	42.5	42.7	31.7	23.9	19.9
Middle East	57.2	50.9	46.7	12.6	13.7	13.1	44.6	37.2	33.6
North Africa	51.7	48.7	47.0	21.6	19.3	19.6	30.1	29.4	27.4
Sub-Saharan Africa	58.3	56.6	55.9	49.7	51.3	51.4	8.6	5.3	4.5

Table 6. Five-year average of youth labour force growth, thousands

	1995–2000	2000–05	2005–10	2010–15
WORLD	-1592	7132	-3541	-2901
Developed Economies & European Union	-325	-637	-840	-325
Central & South-Eastern Europe (non-EU) & CIS	-177	-147	-141	-788
East Asia	-6447	1657	-511	-3937
South-East Asia & the Pacific	566	345	-470	-280
South Asia	1834	2837	-2924	465
Latin America & the Caribbean	440	298	-110	91
Middle East	426	429	-161	-147
North Africa	219	312	-217	-63
Sub-Saharan Africa	1872	2039	1832	2083

Table 7. Unemployment rates by educational level, selected developed economies, 2000 and 2010 (%)

Country	Unemployment rate, 2000			Unemployment rate, 2010			Change, 2000–10 (percentage points)		
	Primary or less	Secondary	Tertiary	Primary or less	Secondary	Tertiary	Primary or less	Secondary	Tertiary
Austria	8.1	4.2	2.2	8.5	3.9	2.4	0.4	-0.3	0.2
Belgium	10.3	6.8	2.7	15.3	8.1	4.5	5.0	1.3	1.8
Bulgaria	25.1	15.8	6.7	22.8	9.7	4.5	-2.3	-6.1	-2.2
Cyprus	6.3	5.4	2.9	7.2	6.3	5.6	0.9	0.9	2.7
Czech Republic	22.6	7.8	3.0	25.0	6.9	2.8	2.4	-0.9	-0.2
Denmark	6.2	4.4	2.6	10.7	6.9	4.9	4.5	2.5	2.3
Estonia	25.2	14.7	4.8	31.0	19.3	9.3	5.8	4.6	4.5
Finland	18.7	11.1	5.2	16.1	8.9	4.4	-2.6	-2.2	-0.8
France	15.3	9.1	5.5	15.4	8.7	5.5	0.1	-0.4	0.0
Germany	12.6	7.9	4.3	14.9	6.9	3.1	2.3	-1.0	-1.2
Greece	9.2	15.1	8.1	12.5	14.4	9.8	3.3	-0.7	1.7
Hungary	11.5	6.4	1.4	24.9	10.5	4.7	13.4	4.1	3.3
Ireland	7.9	3.0	1.7	21.1	15.7	7.5	13.2	12.7	5.8
Italy	12.1	10.6	6.1	10.3	7.9	5.7	-1.8	-2.7	-0.4
Latvia	21.3	14.8	7.2	31.5	20.1	10.3	10.2	5.3	3.1
Lithuania	23.6	20.2	9.3	39.2	21.7	7.7	15.6	1.5	-1.6
Netherlands	4.4	2.0	1.7	7.2	3.9	2.8	2.8	1.9	1.1
Norway	6.6	2.9	2.5	7.3	2.9	1.8	0.7	0.0	-0.7
Poland	21.8	17.0	5.5	17.6	10.5	5.0	-4.2	-6.5	-0.5
Portugal	3.9	4.8	2.8	11.8	11.3	7.2	7.9	6.5	4.4
Romania	4.2	9.4	3.6	6.1	8.3	5.4	1.9	-1.1	1.8
Slovakia	40.4	18.4	5.3	44.2	14.1	5.8	3.8	-4.3	0.5
Slovenia	10.8	6.9	2.2	11.7	7.5	4.3	0.9	0.6	2.1
Spain	15.2	13.8	10.9	27.3	19.2	11.3	12.1	5.4	0.4
Sweden	8.1	5.7	3.0	17.6	7.6	4.5	9.5	1.9	1.5
Switzerland	4.7	2.4	1.4	7.4	4.6	3.0	2.7	2.2	1.6
United Kingdom	8.8	5.0	2.5	13.7	8.2	4.1	4.9	3.2	1.6

Source: ILO (2011a), *Key Indicators of the Labour Market, 7th edition* (Geneva), table 14c.

Table 8. Youth employment, poverty and NEET rates in selected developing economies, by sex (%)

Country	Year	Women			Men		
		Employment-to-population ratio	Poverty rate	NEET rate	Employment-to-population ratio	Poverty rate	NEET rate
Benin	2003	58.2	38.0	20.1	43.5	43.6	14.9
Bhutan	2003	58.4	27.2	15.7	51.2	30.1	6.2
Bolivia	2002	41.8	17.9	20.7	60.2	19.6	5.0
Burkina Faso	2003	73.5	47.1	16.1	79.1	53.2	6.1
Cambodia	2004	76.1	37.8	13.4	78.6	37.8	6.7
Colombia	2003	35.4	13.2	43.2	55.6	16.3	26.2
Congo	2005	27.7	53.4	32.0	26.5	52.2	25.2
Gabon	2005	12.3	4.2	30.9	18.1	4.3	20.9
Guatemala	2000	41.1	11.2	44.4	79.8	10.9	6.0
Indonesia	2002	32.0	26.9	40.8	50.6	27.5	19.9
Jordan	2002	6.2	0.9	44.1	32.2	0.9	21.4
Kenya	2005	33.4	17.6	26.2	37.1	18.0	15.9
Liberia	2007	55.8	81.3	22.9	55.4	82.5	14.6
Mali	2006	55.6	45.0	29.6	66.2	48.8	11.3
Mexico	2004	31.4	1.3	37.4	59.3	1.5	10.4
Mozambique	2003	68.0	68.8	11.5	52.3	65.1	9.4
Nepal	2003	90.1	51.4	5.5	76.5	47.1	7.4
Nicaragua	2005	29.5	12.5	38.7	70.3	16.5	10.3
Niger	2005	22.8	58.5	67.9	61.4	61.1	21.3
Pakistan	2005	15.0	19.9	66.4	62.3	17.5	10.9
Thailand	2002	42.5	0.6	12.6	51.8	0.6	8.5
Togo	2006	63.6	32.3	13.3	59.0	38.5	6.3
Uganda	2005	65.0	42.8	10.7	65.4	43.6	4.6
Viet Nam	2006	52.3	19.5	11.0	55.5	18.2	8.3

Source: ILO (employment) and World Bank (poverty) calculations based on national household surveys.

Annex 2. Note on global and regional projections

Unemployment rate projections are obtained using the historical relationship between unemployment rates and gross domestic product (GDP) growth during the worst crisis/down-turn period for each country between 1991 and 2005, and during the corresponding recovery period.¹⁷ This was done through the inclusion of interaction terms of crisis-year and recovery-recovery dummy variables with GDP growth in fixed-effects panel regressions.¹⁸ Specifically, the logistically transformed unemployment rate was regressed on a set of covariates including the lagged unemployment rate, the GDP growth rate, the lagged GDP growth rate and a set of covariates consisting of the interaction of the crisis-year dummy, and of the interaction of the recovery-year dummy with each of the other variables.

Separate panel regressions were run across three different groupings of countries, based on:

- (1) Geographic proximity and economic/institutional similarities.
- (2) Income levels.¹⁹
- (3) Level of export dependence (measured as exports as a percentage of GDP).²⁰

The rationale behind these groupings is the following. Countries within the same geographic area or with similar economic/institutional characteristics are likely to be similarly affected by the crisis, and have similar mechanisms to attenuate the crisis impact on their labour markets. Furthermore, because countries within geographic areas often have strong trade and financial linkages, the crisis is likely to spill over from one economy to its neighbour (e.g. Canada's economy and labour market developments are intricately linked to developments in the United States). Countries of similar income levels are also likely to have more similar labour market institutions (e.g. social protection measures) and similar capacities to implement fiscal stimulus and other policies to counter the crisis impact. Finally, as the decline in exports was the primary crisis transmission channel from developed to developing economies, countries were grouped according to their level of exposure to this channel, as measured by their exports as a percentage of GDP. The impact of the crisis on labour markets through the export channel also depends on the type of exports (the affected sectors of the economy), the share of domestic value added in exports, and the relative importance of domestic consumption (for instance, countries such as India or Indonesia with a large domestic market were

¹⁷ The crisis period is comprised of the span between the year in which a country experienced the largest drop in GDP growth, and the "turning point year" when growth reached its lowest level following the crisis, before starting to climb back to its pre-crisis level. The recovery period is comprised of the years between the "turning point year" and the year when growth has returned to its pre-crisis level.

¹⁸ In order to project unemployment during the current recovery period, the crisis-year and recovery-year dummies were adjusted based on the following definition: a country was considered "currently in crisis" if the drop in GDP growth after 2007 was larger than 75 per cent of the absolute value of the standard deviation of GDP growth over the 1991–2008 period and/or larger than 3 percentage points.

¹⁹ The income groups correspond to the World Bank income group classification of four income categories, based on their 2008 gross national income (GNI) per capita (calculated using the Atlas method): low-income countries, US\$975 or less; lower middle-income countries, US\$976 – US\$3,855; upper middle-income countries, US\$3,856 – US\$11,905; and high-income countries, US\$11,906 or more.

²⁰ The export dependence-based groups are the following: highest exports (exports ≥ 70 per cent of GDP); high exports (exports < 70 per cent but ≥ 50 per cent of GDP); medium exports (exports < 50 per cent but ≥ 20 per cent of GDP); and low exports (exports < 20 per cent of GDP).

less vulnerable than countries such as Singapore and Thailand). These characteristics are controlled for by using fixed-effects in the regressions.

In addition to the panel regressions, country-level regressions were run for countries with sufficient data. The ordinary least squares country-level regressions included the same variables as the panel regressions. The final projection was generated as a simple average of the estimates obtained from the three group panel regressions and, for countries with sufficient data, the country-level regressions as well.

Refinement of the global and regional projections

In Q1 2012, at the time of production of the *Global Employment Trends for Youth 2012* report, 57 out of a total sample of 178 countries had released monthly or quarterly unemployment estimates for the whole year 2011 and ten for a portion of 2011. In three countries, estimates were available through November; in four countries, estimates were available through September or Q3; and in three countries estimates were available through Q2. These monthly/quarterly data are utilized in order to generate an estimate of the 2011 annual unemployment rate. The 2011 projection for the rest of the sample (countries without any data for 2011), as well as projections for 2012 onwards, are produced by the extension of the Trends Econometric Models using the relationship between economic growth and unemployment during countries' previous recovery periods, as described above.

In generating the 2011 point estimate for the ten countries for which 2011 data are available, the first step is to take an unweighted average of the (seasonally adjusted) unemployment rate over the available months or quarters of 2011, which is defined as the point estimate. Around this point estimate a confidence interval is generated, based on the standard deviation of the monthly or quarterly unemployment rate since the beginning of 2008, multiplied by the ratio of the remaining months or quarters to 12 (for monthly estimates) or four (for quarterly estimates).²¹ Thus, all else being equal, the more months of data that are available for a country, the more certain is the estimate of the annual unemployment rate, with uncertainty declining in proportion to the months of available data.

In order to integrate the short-term and medium-term trends in the movement of unemployment rates, the above point estimate is adjusted according to whether the two trends are in agreement.²² Specifically:

- If both trends are positive (negative), then the above point estimate is recalculated as a weighted average of 60 (40) per cent of the upper bound and 40 (60) per cent of the lower bound.
- If the two trends are in opposite directions, the unemployment rate of the latest month or quarter available is assigned to the remaining months or quarters of the 2011, and the above point estimate is recalculated as an unweighted average over the 12 months or four quarters of 2011.

The underlying assumption is that in cases where there is a clear upward (downward) trend over two consecutive periods, the tendency will be for somewhat higher (lower) unemployment rates than in the latest month of available data. In cases in which there is no discernible

²¹ In cases where the ratio of the point estimate and the standard deviation is less than or equal to 5, the standard deviation is instead constructed since the beginning of 2009. The rationale is that the exceptionally high volatility of unemployment rates during the early period of the global financial crisis is unlikely to persist over the short to medium term. Rather, the most recent level of volatility can be expected to persist.

²² The short-term and the longer-term trend are defined, respectively, as the percentage point differences between the unemployment rate of the latest month M (or quarter Q) available and the unemployment rate of the month M-3 (or quarter Q-1), and of the month M-6 (or quarter Q-2), respectively.

trend over the past two periods, unemployment is expected to remain at the most recent rate, and therefore more weight is given to the latest information available. The final 2011 unemployment rate estimate for these ten countries is equal to the adjusted point estimate.

Out of a total sample of 178 countries, 35 had released monthly or quarterly youth unemployment rate estimates for the whole of 2011 and 14 for a portion of 2011 (five up to Q2 and nine up to Q3). The same procedure is followed for the unemployment rate of the youth sub-components for the countries with at least two quarters available in 2011. The projections for the unemployment rate of the rest of the sub-components for 2011 onwards are produced with the extension of the Trends Econometric Models, using separately for each sub-component the same model specifications as for the total unemployment rate. The nominal unemployment for the various sub-components estimated with the extension of the Trends Econometric Models is aggregated to produce a nominal total unemployment, which may differ from what the above procedure estimates for total nominal unemployment. The difference between the total nominal unemployment produced as the sum of the sub-components and the total nominal unemployment estimated separately is distributed among the sub-components in proportion to each sub-component's share of total unemployment.²³ These adjusted point estimates are the final point estimates for the sub-components.

Confidence interval for the global and regional projections

For the projections for 2012 onwards, the confidence intervals around the projections are generated with progressively smaller (more restrictive) significance levels the longer the projection period is, in order to reflect an increasing level of uncertainty with respect to labour market conditions over time. In addition, countries are divided into three groups based on the ratio of the standard deviation of their unemployment rate during the period from 1998 to 2008 to their 2011 unemployment rate estimate. In order to smooth the differences in the confidence intervals between countries with high or low ratios, a lower significance level (and therefore a wider confidence interval) is ascribed to countries with lower ratios to reflect the higher uncertainty associated with labour market conditions in these countries. Many of these countries have few reported unemployment observations and consequently estimates for these countries tend to be based on econometric models, which result in less variation over time in estimated unemployment rates.

Specifically, countries with ratios less than 0.06 are given a significance level of 15 per cent in 2012, decreasing progressively to 5 per cent by 2016 (12 per cent in 2013); countries with ratios between 0.06 and 0.20 inclusively are assigned a significance level of 45 per cent in 2012, decreasing progressively to 35 per cent in 2016 (42 per cent in 2013); and countries with the highest ratios (historical standard deviation greater than 20 per cent of the 2011 unemployment rate), are given a 75 per cent significance level in 2012, decreasing progressively to 65 per cent in 2016 (72 per cent in 2013).

In order to construct the confidence interval for each sub-component, the ratio of the sub-component unemployment rate to total unemployment rate is applied to the upper- and lower-bound estimates of the total unemployment rate.

Lastly, in order to encourage the reader to concentrate on the wide degree of uncertainty surrounding the central projection instead of the precise central point, the unemployment rate projections are presented along with the confidence intervals. The confidence intervals are by default constructed symmetrically around the central projection and for the figures

²³ The underlying assumption is that the relationship between the total unemployment rate and GDP growth is better understood than the relationship between unemployment rates of subgroups of workers and GDP growth.

presented in the main text the confidence interval is divided into three bands. That is, within the confidence intervals, it can be judged that there is a higher or lower chance that the unemployment rate will be within each band. The choice of three bands in the figures is arbitrary. The central band, coloured with darkest shade, includes the central projection within one-third of the confidence interval, the middle band represents the next one-third of the confidence interval and the outside band with the lightest shade represents the whole confidence interval.

For more information on the methodology of producing world and regional estimates, see www.ilo.org/trends.

Annex 3. Inventory of current country measures to address the youth employment crisis

	Addressing barriers to job growth	Addressing skill mismatches	Promoting young entrepreneurs	Expanding social protection	Building consensus
Argentina		Launch of 'Programa Jovenes con Mas y Mejor Trabajo' targeting those youth that have not completed compulsory education and were either unemployed or receiving social assistance			
Austria		Launch of 'Campaign for the Future of Young People' and creation of job placements, employment subsidies and other projects for unemployed youth			
Australia		Improvement of trade training centers in schools and approval of the 'Marshall Plan' to provide employment for young people via internships and training			
Belgium		Increase in the number of apprenticeship and vocational training opportunities for young people			
Belize			Start-up credits to unemployed young		
Bulgaria		Introduction of 'Youth Work Experience' programme and offer of a grant up to six months to employers to hire young people who have not found employment after graduating from secondary or higher education			

Addressing barriers to job growth	Addressing skill mismatches	Promoting young entrepreneurs	Expanding social protection	Building consensus
Chile				Passing of 'Tripartite Pact' covering six measures in the field of employment, training and social protection
China	Implementation of a national vocational training programme targeting young migrant workers who returned home	Government-sponsored loans for young entrepreneurs		
Costa Rica		Training and start-up capital for young entrepreneurs ("Projovent")		
Croatia	Revision of professional vocational training courses where approximately half of all courses were provisioned take place within the companies			
Denmark	Introduction of a hiring subsidy to private sector employers for recruiting young people under the age of 30 who had been on welfare for at least a year	Introduction of a policy under which 18–19 year olds were interviewed, participated in a job-search training course, and placed in an educational programme or workplace within three weeks of applying for unemployment benefits		
Dominican Republic		Training programme for rural youth and grants of public land		
Estonia	Adoption of a development plan for vocational education and training system			
France	Launch of the 'Emergency Plan for Youth Employment' which consisted of a combination of measures addressing apprenticeships, training programmes and subsidized contracts			
Germany	Creation of job search clubs for unemployed young people and provision of training and apprenticeship placements			
Hungary	Introduction of 'START' and provision of subsidies to companies that employed young labour market entrants			Expansion of safety nets for young people and reduction in eligibility requirements for social protection benefits

Addressing barriers to job growth	Addressing skill mismatches	Promoting young entrepreneurs	Expanding social protection	Building consensus
India	Launch of 'Skills Development Initiative' to train one million young people over a five-year period			
Japan	Development of a 'Job Card System' to allow unemployed youth gain practical job training in participating companies whereby the card documents participants' training record along with companies' evaluation of participants' abilities		Expansion of safety nets for young people and reduction in eligibility requirements for social protection benefits	Agreement to maintain employment for more than 13 million workers through work-sharing arrangements that were subsidized by the government, which contributed to employment creation and stability for young people
Kenya	Introduction of 'Kazi Kwa Vijana' programme and creation of 300,000 jobs for youth over a six-month period	Provision of start-up credit by the Youth Development Fund		
Republic of Korea	Re-launch of 'Youth Internship Program' and provision of some 100,000 young people with work experience, regular job contracts and other career development opportunities			
Latvia	Provision of a monthly stipend to unemployed youth aged 18–24 and offer of on-the-job training for up to 12 months			
Lithuania	Exemption of employers' social contribution upon offering young people their first job			
Pakistan	Introduction of 'Benayir Bhutto Shaheed Youth Development Program' and offer of a monthly stipend and access to training for 100,000 young people	Start-up credits for young entrepreneurs		
Philippines	Implementation of a summer work programme for young people subsidized by the government			
Poland	Introduction of an internship programme for unemployed youth and financial support equivalent of 120 per cent of the unemployment benefit for up to a year			

Addressing barriers to job growth	Addressing skill mismatches	Promoting young entrepreneurs	Expanding social protection	Building consensus
Portugal		Provision of low-interest credit and technical advice for first-time jobseekers		
Romania		Tax exemptions, hiring subsidies and government-backed credit guarantees for start-ups created by young entrepreneurs		
Serbia	Introduction of 'First Chance' programme which gives young job seekers without significant prior work experience the opportunity to enter subsidized employment by private employers for a period of up to 12 months at a pre-set wage			
Singapore			Expansion of safety nets for young people and reduction in eligibility requirements for social protection benefits	
Spain			Expansion of safety nets for young people and reduction in eligibility requirements for social protection benefits	
Sweden	Adoption of a 'Job Guarantee Scheme' targeted to unemployed youth and subsequent provision of an immediate job or opportunity to return to education			
Turkey	Reduction of employers' social contributions for five years upon the recruitment of unemployed youth			
United Kingdom		Launch of the 'Future Jobs Fund' and creation of 100,000 jobs for long-term unemployed youth		
United States	Expansion of tax credits for employers hiring unemployed or disconnected youth		Expansion of safety nets for young people and reduction of eligibility requirements for social protection benefits	

Source: European Commission (2011); ILO (2009d); ILO (2010d); ILO (2010e); Ha et al. (2010); Günter (2009); United Nations (2009); Scarpetta et al. (2010).

