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The Human Cost of Recessions: Assessing It, Reducing It

Mai Dao and Prakash Loungani

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Prepared by Mai Dao and Prakash Loungani

Authorized for distribution by Olivier Blanchard

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Authors' E-mail Addresses: mdao@imf.org; ploungani@imf.org

CONTENTS

PAGE

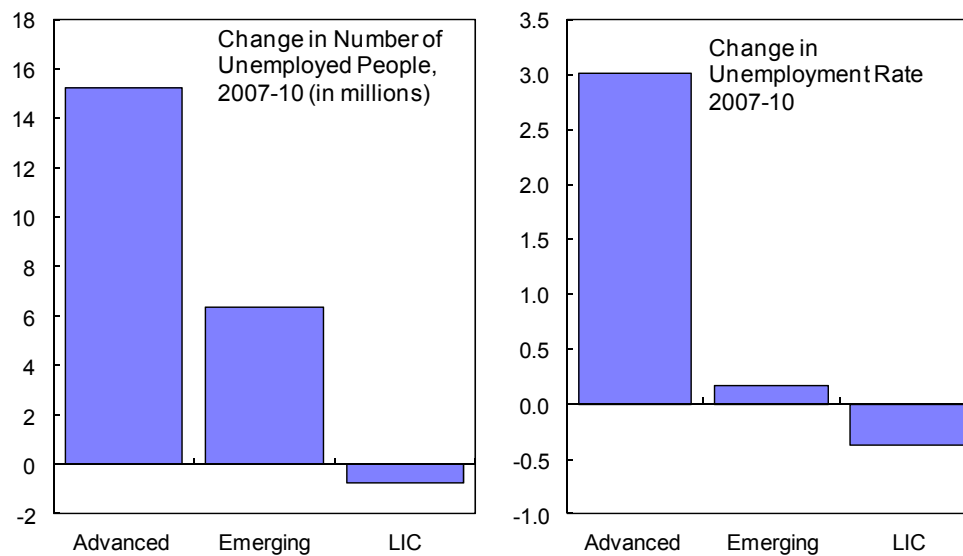
I.	Introduction.....	3
II.	The Human Cost of Recessions	5
	A. Cost to Individuals and Families.....	5
	B. Loss of Social Cohesion.....	8
	C. Cost of Youth Unemployment.....	9
	D. Cost of Long-Term Unemployment.....	10
III.	Policy Responses: Maintaining Aggregate Demand.....	13
	A. Cross-Country Differences in Unemployment Responses	13
	B. Financial Sector Policies.....	14
	C. Fiscal and Monetary Policies	14
	D. Wage Moderation.....	16
IV.	Policy Responses: Easing the Pain	17
	A. Short-Time Work	17
	B. Unemployment Benefits	18
V.	Policy Responses: Accelerating Recovery in Jobs	19
	A. Dual Employment System	19
	B. Job Subsidies.....	20
VI.	Conclusions.....	21
	Annex 1: Fiscal Adjustment and Income Distribution in Advanced Economies	22
	Annex 2: What Determines the Use of Temporary Workers?.....	23
	References.....	24

I. Introduction

Recessions leave scars on the labor market; the Great Recession of 2007–09 has left gaping wounds. Over 200 million people across the globe are estimated to be unemployed at present. Among countries with unemployment data in the IMF’s *World Economic Outlook (WEO)* database, there has been an increase of over 20 million unemployed people since 2007. The ILO estimates that globally the increase is over 30 million. As shown in the left panel of Figure 1, three-fourths of this increase in the number of unemployed people occurred in the “advanced” economies (the term used in the *WEO* to denote high per capita income countries) and the remainder among emerging market economies. The unemployment rate increased by 3 percentage points in advanced countries since 2007 and by 0.25 percentage points in emerging markets (Figure 1, right panel). In contrast, in low-income countries (LIC) on the whole, unemployment fell during the Great Recession.

Figure 1. Unemployment During the Great Recession

Advanced economies saw bigger increases in unemployment than did other country groups.



The classification of countries into groups is the one used in the IMF’s *World Economic Outlook*.

Source: Authors’ calculations based on WEO database.

Section II of this paper assesses the human cost of the increase in unemployment by surveying what we know about the effects of past recessions. If past is prologue, the cost to those who get unemployed could be a loss in earnings not just today but persisting 15-20 years into the future; reduced life expectancy of 1 to 1.5 years; and lower academic achievement and earnings for their children. And unemployment is likely to reduce social cohesion, a cost that all will bear.

To their credit, most countries mounted a strong policy response to try to minimize these costs. These policy actions were notable also for their consistency and coherence across countries, an outcome achieved in part through the deliberations of the G-20 nations during the crisis.

Broadly speaking, the response had three parts, discussed in Sections III to V of the paper:

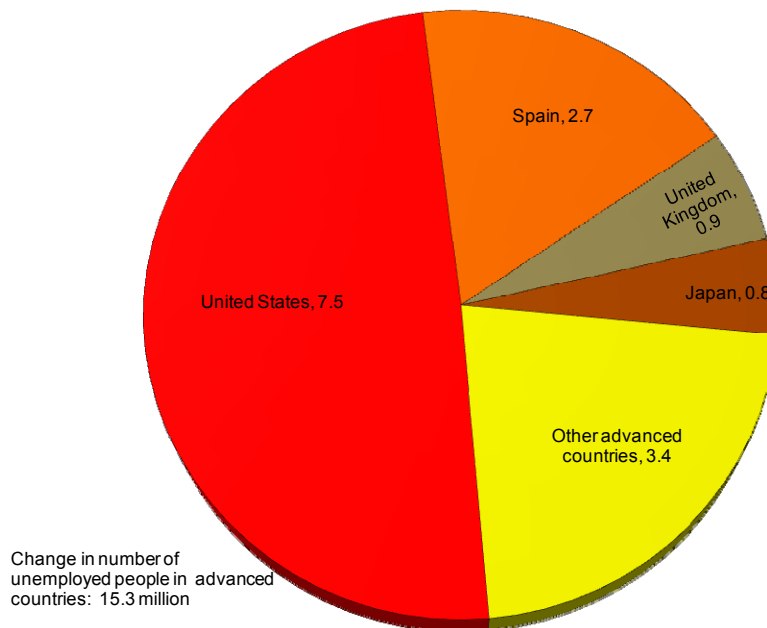
- *support aggregate demand* through monetary and fiscal policy actions (section III);
- *ease the pain* in labor markets through short-time work programs and provision of unemployment insurance benefits (section IV);
- *accelerate jobs recovery* through the provision of subsidies of various kinds (section V).

In each of these sections, we assess the policy responses during the crisis and the policy options for the next couple of years.

The focus of the discussion is on advanced economies. Issues in labor markets elsewhere in the world are very important but they are often very different; to cover both in one paper would risk doing justice to neither. As Figure 1 shows, the scale of the unemployment problem in advanced economies is serious enough to merit consideration in its own right. Within the advanced countries, particular attention is paid to the United States—the epicenter of the Great Recession—and the country with the highest increase in the number of unemployed (Figure 2).

Figure 2. Advanced Countries: Change in Number of Unemployed People, 2007-10 (in millions)

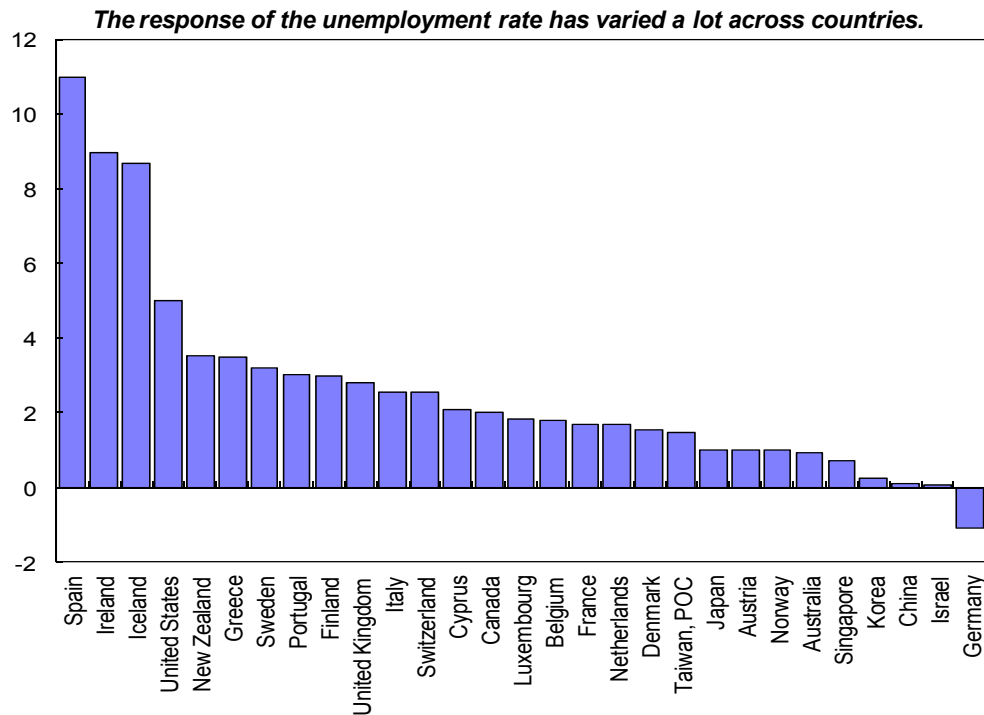
The U.S. and Spain account for two-thirds of the increase in unemployed people in advanced countries.



Source: Authors' calculations based on WEO database.

Some of the largest increases in the unemployment *rate* have occurred in Spain, the United States and New Zealand (Figure 3). In contrast, despite experiencing a demand shock of similar magnitude to many other advanced countries, the German unemployment rate decreased slightly. Norway, Australia and Korea only had small increases in their unemployment rates.

Figure 3. Change in Unemployment Rate 2007-10, by Country



Source: Authors' calculations based on WEO database.

II. The Human Cost of Recessions

The human and social costs of unemployment are more far-reaching than the immediate temporary loss of income. They include loss of lifetime earnings, loss of human capital, worker discouragement, adverse health outcomes, and loss of social cohesion. Moreover, parents' unemployment can even affect the health and education outcomes of their children. The costs can be particularly high for certain groups, such as youth and the long-term unemployed (see Katz, 2010; von Wachter, 2010a, 2010b; Holzer, 2010).

A. Cost to Individuals and Families

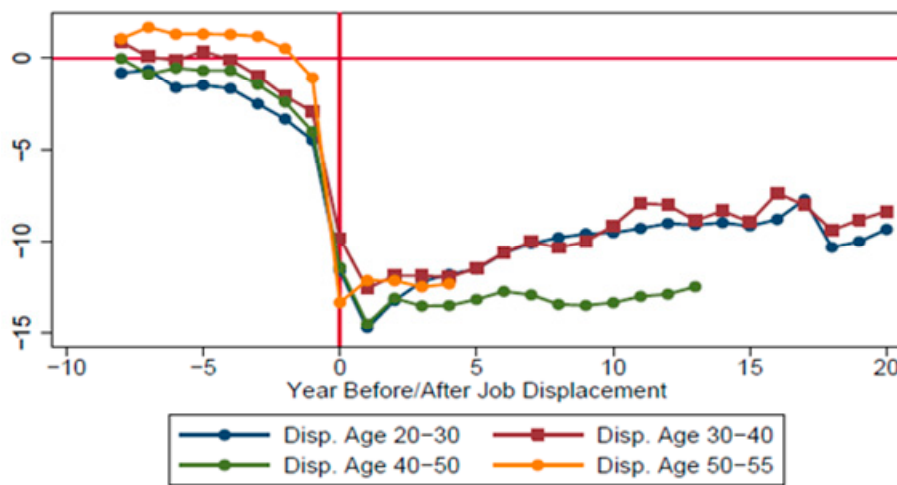
Loss of earnings: Layoffs are associated with substantial loss of earnings both over the short and long run. That is, even when workers are re-employed shortly after displacement, they suffer a decline in wages compared to the pre-displacement job and compared to similar workers that were not displaced. The decline in earnings is on average observed for job losers in any period, but is most pronounced for job losers during a recession (see Farber, 2005). Studies for the United States show that these earnings losses persist even in the long run: 15–20 years after a job loss in a recession, the earnings loss amounts on average to 20% (see e.g. Jacobson et al., 1993; von Wachter et al., 2009).

An illustration of an average earnings path before and after job separation during the recession in the 1980s using U.S. administrative data is taken from von Wachter et al. (2009) and reproduced in

Figure 4. These sustained earnings losses stem from the decline in value of certain occupation- or industry-specific skills that become obsolete, from the time-intensive process of finding an appropriate job, in particular for a mature worker, but also from so called “cyclical downgrading”—when workers take up worse jobs than they otherwise would have had in the absence of a recession. There is also evidence that the adverse effects on lifetime earnings are most pronounced for unemployment spells experienced at youth, especially upon college graduation, making the rising youth unemployment rate a particularly serious concern (see Oreopoulos et al., 2008; Kondo, 2008; Kahn, 2010). Using similar data and empirical methodology as the U.S. studies above, Schmieder et al. (2009) also find that workers who lost their stable jobs in 1982 in Germany suffered earnings losses of 10–15% that lasted at least 15 years. Thus even in countries with more generous welfare systems and lower earnings inequalities, workers are not shielded from long lasting and large income losses caused by job displacement.

Figure 4. Earnings Losses Due to Job Loss

Job losers suffer a persistent loss in earnings relative to comparable workers who keep their jobs.



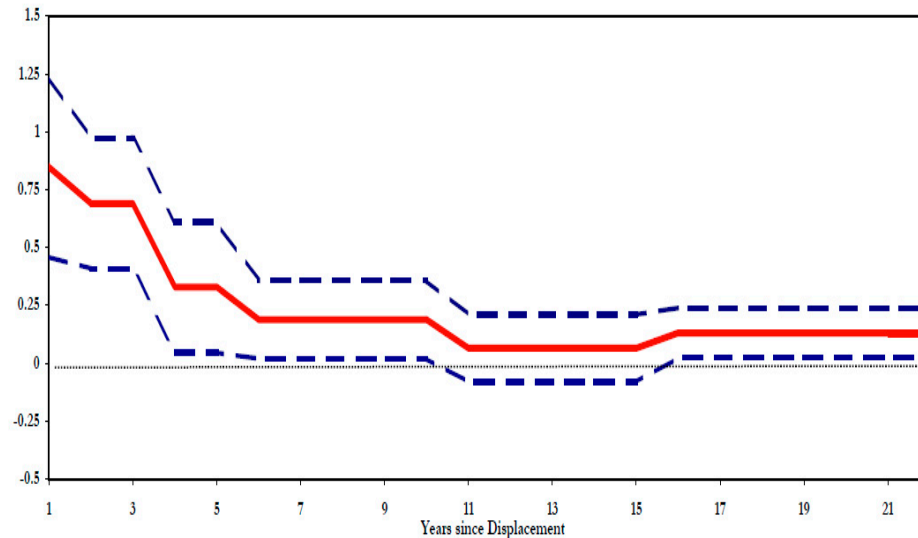
Earnings Losses of men in stable jobs at and around job separation (t=0) in 1000 USD. 1% files of Social Security administrative data. Earnings in 2000 dollars. Source: von Wachter et al. (2009).

Impact on health: The hardship of job loss also has serious negative impacts on health. In the short run, layoffs are associated with higher risk of heart attacks and other stress-related illnesses (Burgard et al., 2007). But even in the long term, the mortality rate of workers that have been laid off is on average higher than that of comparable workers that did not lose their jobs, controlling for other relevant individual and aggregate characteristics. Based on social security data for the United States, Sullivan and von Wachter (2009) estimate that increased mortality rate due to unemployment can persist up to 20 years after the job loss and lead to an average loss of life expectancy from 1 to 1.5 years (see Figure 5). Moreover, displaced workers’ loss in earnings is associated with the increase in mortality odds: workers that are displaced but are lucky enough not to suffer a loss in subsequent earnings are *not* found to have a higher rate of mortality (Figure 6).

This suggests that financial resources serve as an important determinant of individual health by influencing the ability to invest in good health care (and access to health insurance) and a healthy lifestyle, while a shortage of resources leads to poor lifestyle choices and can also be the reason for stress and depression.

Figure 5. Impact of Job Loss on Mortality

Job loss leads to increased mortality rates relative to comparable workers who keep their jobs.



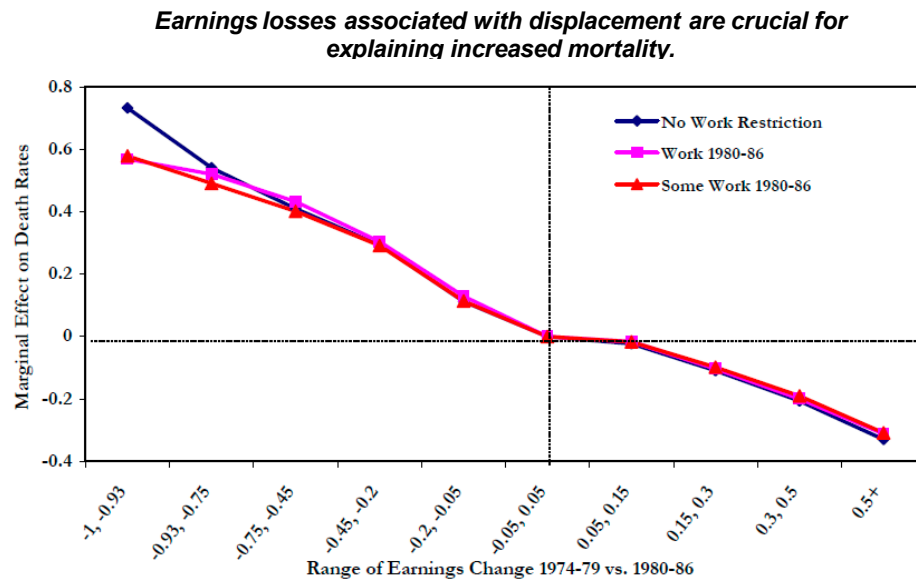
Marginal effect of displacement on odds of mortality, with 2 SE bands.
Source: Sullivan and von Wachter (2009).

Impact on children: The short and long-run costs of unemployment do not appear to be limited to the individual or generation directly affected. Several studies have found that children of laid-off parents also suffer: in the short-run, parental job loss tends to reduce the schooling achievement of their children. Stevens and Schaller (2009) find that parental job loss increases the probability that a child repeats a grade in school by nearly 15 percent. Unobserved family characteristics are controlled by child fixed effects and other measures of family innate ability such as siblings' prior grade retention using different waves of the same survey. In the long-run, a father's income loss also reduces the earnings prospects of his sons.¹ For example, Oreopoulos et al. (2008) estimate using Canadian administrative data that children whose fathers were displaced have annual earnings about 9% lower than similar children whose fathers did not experience an employment shock. The empirical identification strategy relies on the construction of a treatment and control group of

¹ The intergenerational correlations literature uses income data of fathers and sons, because mothers' and daughters' earnings, due to gender-specific biases, may not be a valid indicator of their labor market success

children, where the only observable difference is an unanticipated plant closure experienced by the father between 1980 and 1982.²

Figure 6. Channel of Displacement on Mortality



Relative change in average earnings after job loss and its marginal effect on mortality.
Source: Sullivan and von Wachter (2009).

Although most studies carried out in this field so far focus on North America, where more high-quality micro data is available, evidence for costs of parental economic condition borne later by children is also found in other countries. For example, Palme and Sandgren (2008) study the relationship between parental economic resources during childhood and mortality later in life using detailed individual data from Sweden. They find that lower parental income significantly increases children's mortality later in life, even after controlling for children's lifetime income and education attainment.

Summing up, the literature presents compelling evidence that in addition to adverse short-run effects on children, parental job and income loss has a negative and persistent effect on children's well-being, underlining the importance of early investment in education and health of children.

B. Loss of Social Cohesion

Economic hardship and unemployment in particular also have potentially far-reaching consequences on social cohesion. Using data from the General Social Survey on the development of American society from 1972 to 2006, Giuliano and Spilimbergo (2009) find that individuals who have experienced a recession in the formative age of 18–25 years tend to believe less in personal effort, perceive stronger inequalities, and have less confidence in public institutions. Altindag and

² That is, the control group has the same fathers' income prior to 1980, and same firm, industry, and region characteristics.

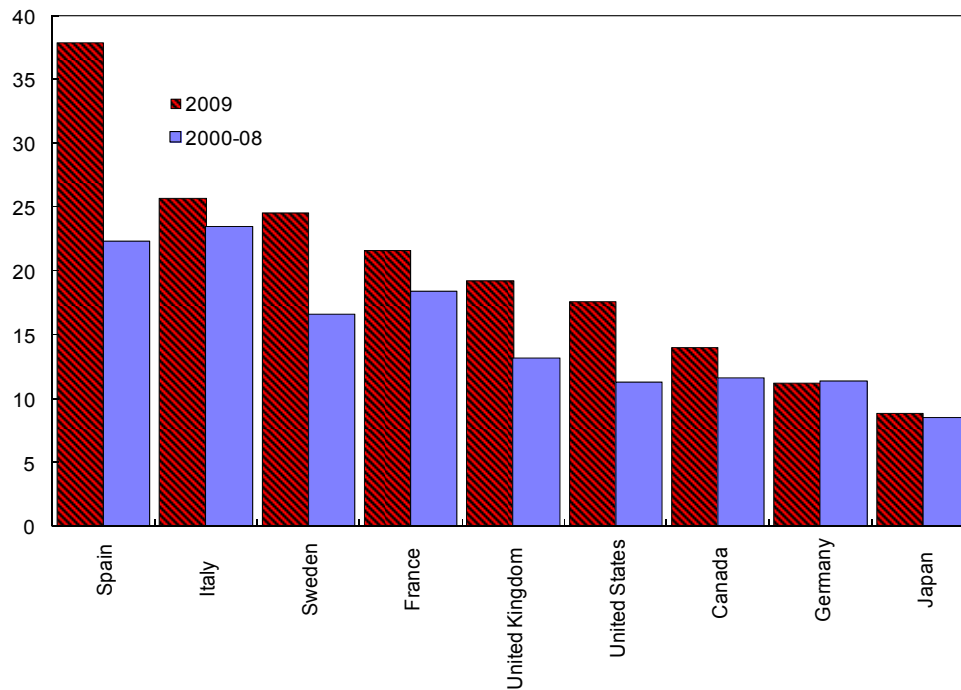
Mocan (2010) find from survey data for 69 countries across the world that personal joblessness experience translates into negative opinions about the effectiveness of democracy and increases the desire for a rogue leader. The effect is more pronounced for the long-term unemployed and extends to individuals who do not experience unemployment themselves, but live in a country and period with high unemployment. This finding, which is based on data prior to the current crisis, sheds alarming light on today's situation of high long-term and youth unemployment rates. In fact, due to population aging, the youth cohort in Europe today forms the largest share of total population at least for the next 20 years.

C. Cost of Youth Unemployment

The unemployment rate for youth (age 15-24) has on average always been higher than for other age cohorts: in OECD countries, the ratio between the under-25 and over-25 year old unemployment rate is on average around 2.5 to 1. Figure 7 shows the youth unemployment rate before the crisis and its increase in 2009 for a sample of OECD countries. The rise is substantial for all countries except those that experienced little change in the overall unemployment rate (Germany, Japan). The largest rise in youth unemployment is observed for Spain (almost 40 percent). Though youth unemployment typically increases sharply during recessions, the increase this time has been greater than in the past: for a set of eight countries for which long time-series of youth unemployment are available, the increase in the youth unemployment rate averaged 6 ½ percentage points during the Great Recession, compared with 4 percent in previous recessions.

Figure 7. Youth Unemployment Rate

Youth unemployment has increased in many countries and more so than in past recessions.



Youth are defined as those 15-24 years old.
Source: OECD.

A look at micro data also reveals a change in youth unemployment before and during the crisis. Bell and Blanchflower (2010) estimate the individual unemployment probability using data from the Eurobarometer surveys in 2006 and 2009. They find that the group of coefficients that have changed most in the last 3 years are those associated with age: the increase in probability of unemployment for youth aged 15–24 has been much greater than the impact of living in a particular country, and is also greater than the effect of different education level and gender.

As noted above, the adverse effects on lifetime earnings are most pronounced for unemployment spells experienced at youth, especially upon college graduation. And the high and increasing burden of unemployment on young people poses risks to social cohesion.

D. Cost of Long-Term Unemployment

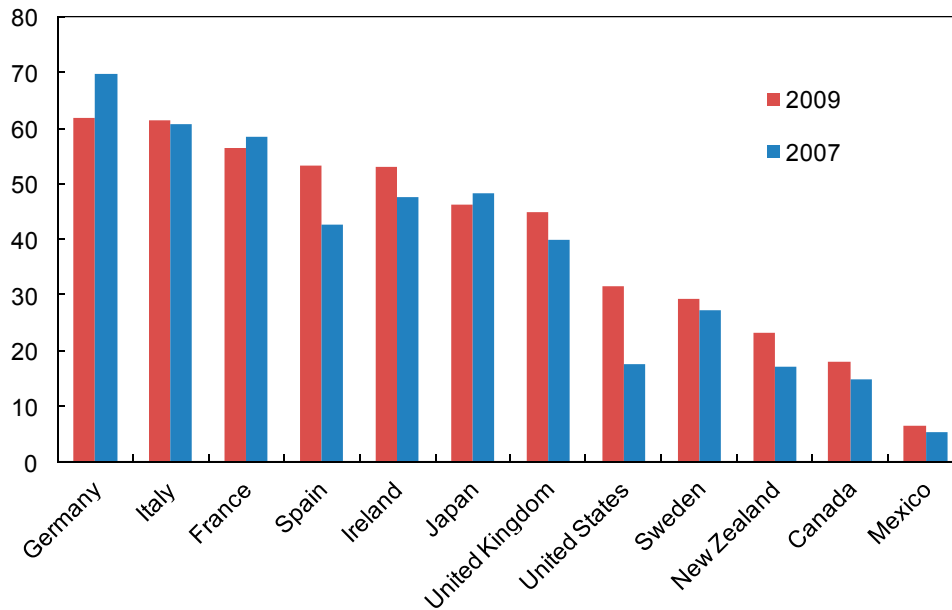
Another metric that has direct implication for the costs of unemployment is the duration of unemployment spells. A longer unemployment spell carries the risk of entrenching cyclical unemployment into a structural phenomenon as workers lose human capital and become detached from the labor force (Blanchard and Summers, 1986).

Figure 8 summarizes the change in unemployment composition in selected OECD countries during the crisis. The share of long-term unemployed has increased in most of these countries between

2007 and 2009. In cases where it has not increased—such as Germany, France, Italy and Japan—the share has been persistently very high even before the crisis. This indicates that there are structural factors hindering the re-employment prospects in these countries that have been present before the crisis and need to be addressed.

Figure 8. Long-Term Unemployed as Share of all Unemployed

Long term unemployment is at alarming levels in many countries.



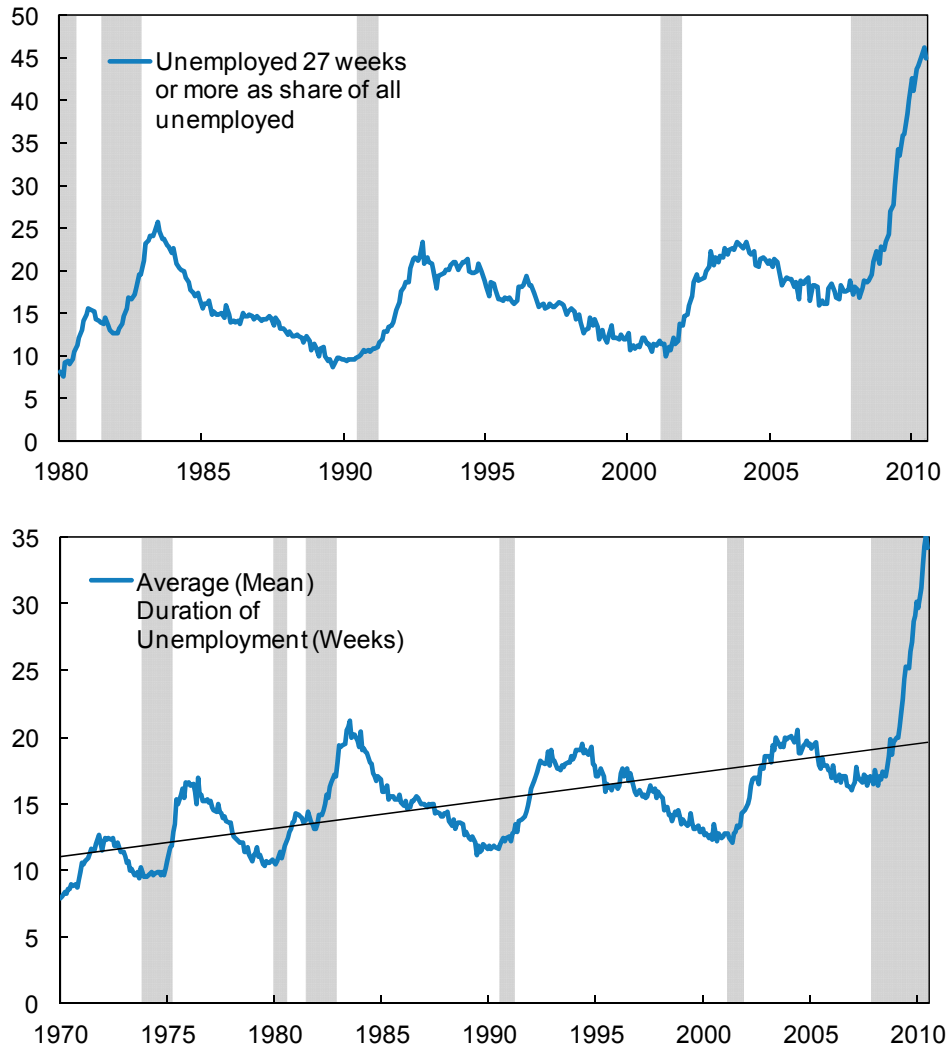
Long-term unemployed are those unemployed six months or more.
Source: OECD.

Figure 9 (top panel) shows the share of workers who have been unemployed for 27 weeks or more as a share of the total unemployment pool in the US since 1980. While the share has been rising with every recession, the increase during the Great Recession to about 45% is dramatic.

The rising share of long-term unemployment is reflected in an increase in the average duration of unemployment (Figure 9, bottom panel). Although there are obvious cyclical patterns, it is clear that there has been a secular upward trend in the duration of unemployment. Historically, the average duration started to decline within the same year that the recession ended. Starting in the 1990s, however, the unemployment duration has only declined as late as three years after the end of each recession and it has not reverted to the level prior to the recession.

Figure 9. U.S. Long-Term Unemployment and Duration of Unemployment

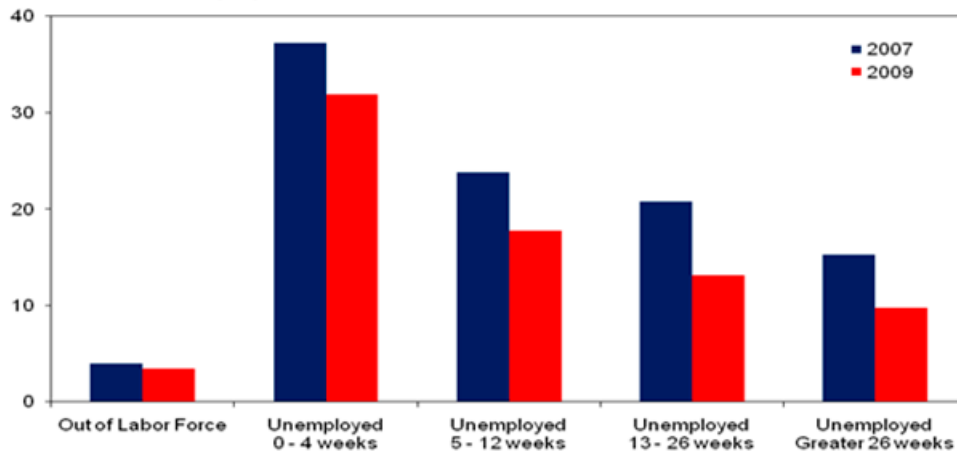
Nearly half of U.S. unemployed workers have been out of work for over six months and the average duration of unemployment is nine months.



Source: Bureau of Labor Statistics.

Figure 10. Impact of Duration of Unemployment on Odds of Finding a Job

The chances of finding a job decline sharply the longer a person has been out of work.



Probability of employment next month by labor force status this month (percent, seasonally adjusted). Includes civilians over age 20 present in successive months of data. Includes data from the last quarter of each year.

Source: Department of Commerce (Census Bureau), Current Population Survey.

Of course, the negative earnings impacts of job loss may be exacerbated with longer duration of unemployment. Long-term unemployment also reduces the average probability of being rehired and hence increases the risks of hysteresis in unemployment. For example, data from the U.S. Census Bureau in Figure 10 show that for Q4 2009, the probability of being rehired in the next month for a person who was unemployed for 26 weeks or more is less than 10 percent, compared to over 30 percent for someone who was unemployed for less than 4 weeks. The increased duration of unemployment observed in the US and elsewhere points to the danger of serious losses of skills and labor market attachment for a large group of workers.

III. Policy Responses: Maintaining Aggregate Demand

A. Cross-Country Differences in Unemployment Responses

During the Great Recession, unemployment rates increased almost everywhere but by quite varied amounts. Spain and the United States experienced large increases but the unemployment rates in Norway and Germany barely budged. What explains this differential response?

Three sets of factors are at play. The first is the extent of the fall in aggregate demand. “Okun’s Law” relates the increase in unemployment to the fall in aggregate demand. The second is the coincidence of the aggregate demand decline with acute stresses in other sectors, such as the financial and housing sectors (IMF, 2010a). There is evidence that countries which experienced a substantial house price decline during the crisis suffered on average a larger increase in unemployment, for any given drop in demand. The third is the extent to which countries resorted to active labor market policies, and against which underlying economic shocks they were implemented. OECD (2010) suggests that in countries where the demand shock was felt mostly through exports, governments

were more inclined to treat the shock as temporary and try to use active policies to shield employment. At the same time, the anticipation of shocks being temporary made firms more willing to retain workers and make use of flexible work arrangements instead of laying off.³

But even given the country-specific factors, recent studies on the determinants of unemployment during the crisis all find that the “Okun coefficient” is significant in all empirical specifications (see e.g. IMF/ILO, 2010; IMF, 2010b; Batini et al., 2010). This suggests that, while not the only factor, the change in aggregate demand was an important determinant of the cross-country variation in unemployment response. Hence, supporting the recovery in real GDP—in the short run, maintaining aggregate demand—is one of the most direct ways to help the labor market.

What policies are needed to support aggregate demand over the coming year? The following subsections summarize the actions needed on the three major policy fronts—financial, fiscal, monetary—drawing on the IMF’s latest *World Economic Outlook* (IMF, 2010d) and several other IMF documents.

B. Financial Sector Policies

Viñals et al. (2010) note that “no other financial crisis since the Great Depression has led to such widespread dislocation in financial markets, with such abrupt consequences for growth and unemployment.” Economic downturns accompanied by financial crises have tended to be deeper and longer lasting than other downturns. Thus, financial sector policies are likely to have an important bearing on the recovery; successful repair and reform of financial sectors is needed to move “toward the stronger and sustained growth needed to make a meaningful dent in the current high rates of unemployment in many advanced economies, including the United States” (Lipsky, 2010).

Financial repair has not yet fully addressed the legacies of the crisis, including bank funding concerns and the resolution of weak banks, thus keeping credit tight and constraining aggregate demand. Financial reforms have progressed as well but much more needs to be done. Viñals et al. (2010) summarize the needed reforms: (i) more global coordination in regulation to reap the benefits of global competition while minimizing risks of cross-border arbitrage; (ii) strengthened supervision, and one more focused on cross-border exposures; (iii) better resolution mechanisms at the national level and for cross-border institutions, particularly to address the problem of “too important to fail” institutions; (iv) a comprehensive macroprudential framework to address systemic risks; and (v) expanding these reforms to all financial institutions, not just banks. While these reforms will not happen overnight, the faster that uncertainty about the course of reforms is reduced, the more the financial system will be able to support aggregate demand and growth.

C. Fiscal and Monetary Policies

Early on in the crisis, the IMF called for a globally-coordinated fiscal stimulus, reflecting concerns about unemployment. While this stimulus helped to keep even worse outcomes from unfolding in

³ A summary of cross-country regressions that document the contribution of each factor in explaining the change in unemployment during the crisis is given in more detail in IMF/ILO (2010), Ch. 1.

labor markets, the fiscal situation in many countries has been pushed to a point where projected public debt-to-GDP ratios to levels that raise concerns about sustainability.⁴ In the G-20 advanced economies, for instance, the increase in the debt-to-GDP ratio between 2008 and 2015 is expected to be nearly 40 percentage points of GDP. About two-thirds of the increase is due to revenue losses and the adverse impact of the fall in GDP on the interest rate-growth differential during 2008-09.

How should fiscal policy proceed against this backdrop? The consolidation plans that these countries have for 2011, which imply an average change in the structural balance of 1¼ percentage points of GDP, are broadly appropriate. Leigh et al. (2010) find that for OECD economies over the past 30 years, fiscal consolidations of 1 percent of GDP have typically reduced domestic demand—consumption and investment—by about 1 percent and raised the unemployment rate by about 0.3 percentage points over a two-year period. Hence, an overly severe consolidation would stifle still-weak domestic demand.

Clearly, however, the fiscal situation varies across countries. Hence the type and speed of consolidation should reflect these different circumstances, balancing the risks to economic recovery from too much consolidation against the risks to fiscal credibility from too little.

The question is whether countries that have to undertake medium-run fiscal consolidation will actually carry them out. Based on a study of past large-scale fiscal adjustments, Cottarelli et al. (2010) conclude that “fiscal adjustment on the requisite scale is not historically unprecedented” and that “such a major adjustment is difficult, but possible.”

To make their medium-run plans credible, countries could include legislation creating binding multiyear targets. How the consolidation takes place is important too. Emphasis should be placed on consolidation measures that limit the negative impact on demand. Moreover, if the steps taken reduce the fiscal burden for the future and boost the economy’s supply potential, they can mitigate the adverse short-term effects on domestic demand that fiscal consolidation has commonly caused in the past. Reforming age-related and public health care spending are important steps in this context; for example, raising retirement ages can have a positive demand effect in the short term if it shortens the retirement period and the need for saving (Velculescu, 2010). Boosting the supply potential requires that plans improve tax structures and strengthen fiscal institutions.⁵

Fiscal plans should be fair. There should be specific measures to protect the most vulnerable from the effects of the consolidation. Annex 1 provides evidence that fiscal consolidations in the past, particularly expenditure-based ones, have widened inequality in advanced economies, and discusses how targeting of social benefits can guard against this outcome.

⁴ See Cochrane (2010).

⁵ See Blanchard and Cottarelli (2010). Cottarelli and Schaechter (2010) look at the evolution of public debt levels in the G-7 economies in the decades leading up to the recent crisis and the outlook for cutting debt ratios in the years ahead. Beyond the 2008-09 crisis, the indebtedness reflects persistent upward trends in debt ratios since 1974. Rising healthcare and pension spending accounts for most of the increase in primary balances. They conclude that to avoid undermining the fragile economic recovery while providing reassurance to capital markets, fiscal adjustment should be clearly defined with a focus on the medium term rather than the near term.

Coordination of policies across advanced and emerging countries helped during the recession and it would help during the recovery. A policy scenario developed as part of the G-20 Mutual Assessment Process shows that collaborative actions can produce outcomes that make everyone better off. What is needed is for emerging markets with large external surpluses to adopt policies that nurture domestic demand so as to offset the loss of demand from fiscal policy actions in advanced economies. If combined with structural reform policies that alleviate supply constraints, particularly in the advanced G-20 economies, this rebalancing of demand raises global GDP, which would also be good news for job creation.

The preceding discussion of fiscal policy does not take into account the impact it can have in the presence of hysteresis, that is, when the natural rate of unemployment has increased as a result of persistent cyclical weakness in the economy. With hysteresis, government policies that stimulate demand confer larger benefits than otherwise if they can counteract the increase in the natural rate and bring output back to potential. Under some illustrative calculations, the increased tax revenues from the return to a higher potential can lower the debt-to-GDP ratio over the medium-run. There is a risk of hysteresis in some countries, particularly in the United States and Spain, given the sharp increase in the duration of unemployment and the persistent nature of the shocks (e.g. to the housing sector) that lie behind the cyclical weakness in the economy and hence the increase in unemployment (see Benes et al., 2010; Estevao and Tsounta, 2010; and Vitek, 2010). However, additional work is needed to determine empirically how important hysteresis might be and how it might influence policy decisions.

Monetary policy remains an important policy lever to support aggregate demand. Inflation pressures are subdued—headline and core inflation are expected to be around 1¼ percent in 2011. Monetary conditions can thus, as the October 2010 WEO notes, remain “supportive in most of the advanced economies and should be the first line of defense against any larger-than-projected weakening of activity as fiscal support diminishes.”

D. Wage Moderation

While wage moderation could limit unemployment losses, it may not always be desirable in the current context. For relatively closed economies like the United States, wage moderation would either add to deflationary pressures or lower aggregate demand. For more open economies, wage moderation could impart a boost to competitiveness and thus spur greater external demand, an avenue that is particularly appealing for countries that are part of a currency area and do not have the option of gaining competitiveness through a nominal depreciation of the exchange rate.

Of course, the extent to which government policies can influence wage-setting differs across countries, depending on their labor market institutions and traditions. In countries such as the United States, the government’s role is generally limited to moral suasion, whereas in many European countries the government is directly involved as one of the parties in tripartite wage-setting arrangements. Even in the latter situation, it would be preferable if the wage moderation came about without heavy-handed government intervention. As an example, IMF (2010b) notes that in New Zealand, the labor market adjusted through declines in real wages and hours worked over

the course of the Great Recession; “a tradition of excellent cooperation between employers and employees” allowed these changes to take place “primarily through direct negotiations between social partners and firm-level agreement, without the need for active government intervention.”

While general wage moderation should be used with caution, targeted cuts in some sectors may be appropriate. An example is the very high public sector wages in some countries.

IV. Policy Responses: Easing the Pain

To support labor demand in the face of declining aggregate activity, many governments implemented policies to allow firms to retain workers but reduce their working hours and wages. All governments allowed the automatic stabilizer of unemployment insurance (UI) benefits provision to work to ease the short-term costs of unemployment. Many countries already had in place extended periods for provision of UI benefits; others extended it as the recession dragged on—in the United States, for instance, the provision was extended from 26 to 99 weeks. This section assesses these policies and whether they should be continued over the next couple of years.

A. Short-Time Work

Under these programs, governments typically subsidize firms for parts of the wage bill, sometimes combined with subsidies for on-the-job training for employees (e.g. Sweden). When implemented successfully, short-time work programs can spread the burden of the downturn more evenly across workers and employers; contribute to supporting aggregate demand by preventing wage deflation; and reduce future hiring costs and loss of workers’ human capital until the labor market recovers.

During the Great Recession, short-time work programs were most extensively used in Germany, Italy and Japan and are often credited for having played a crucial role in dampening the increase in unemployment in these countries. But the usage of short-time work programs as well as their contribution to the dampening of unemployment has varied considerably across countries (see IMF, 2010a), implying that the design of the program as well as the underlying economic condition was vital for its success.

Systematic empirical studies on the merits of short-time work during the crisis are still to be done. In general, a careful evaluation of the short-time work program requires looking beyond the rate of enrollment in the short-time scheme in a country. For the case of Germany, a recent investigation by Möller (2010) challenges the view that the benign labor market experience can be mostly explained by the short-time work program. Instead, he suggests that the nature of the shock (which hit mostly export-oriented manufacturing firms) as well as the initial condition prior to the crisis, particularly a shortage of trained workforce, high costs of layoffs and rehiring, led to strong incentives for labor hoarding on the part of German firms. However, even if it was not the main driving force behind the behavior of firms, the short-time work scheme does appear to have supported this employment-friendly incentive in a beneficial way.

Should these programs continue over the next year? Subsidies to short-time work are costly not only because of the strain on public finances. They create a deadweight loss by giving firms an

incentive to free-ride on the subsidy even when conditions improve. More importantly, if the downturn affects certain firms and industries in a permanent way, the program can also obstruct a necessary reallocation of resources to other industries, hence slowing down the recovery through structural adjustment. During a severe recession, the deadweight loss and cost of diminished reallocation are likely to be of second order importance. However, these potential efficiency costs are likely to become more relevant in recovery periods, suggesting that these programs should start to be phased out as recovery takes hold.

It is important to stress that short-time work is intended to help prevent destruction of jobs that are viable in the long term. Whether this has in fact been achieved across all implementing countries is not clear. In Germany, short-time work usage has been appropriately concentrated in sectors that have experienced an adverse but temporary demand shock (mainly export-oriented manufacturing). In contrast, short-time work usage in Italy has been persistently higher in some sectors (mechanical and textiles, leather) for several years prior to the crisis already (see IMF, 2010a). This persistent use of short-time work in some sectors in Italy suggests that the program has likely served to delay structural layoffs in declining industries instead of smoothing out temporary demand shocks to viable jobs. The dependence of the policy's effectiveness on the nature of the shock might also partly explain why short-time work was successful in Germany (temporary export shock), but ineffective in Spain (permanent housing/construction shock).

B. Unemployment Benefits

Unemployment benefits provision is the most direct policy tool with which governments can help the unemployed worker maintain a certain level of consumption and welfare during the initial period following a lay-off. Due to the low level of savings and lack of credit available to the unemployed, the propensity to consume out of UI benefits is close to one and the provision of UI benefits thus also provides vital demand stabilization during recessions.⁶ Moreover, UI benefits allow the laid off worker to spend time and efforts searching for a suitable new job and hence improve the potential job match.

There are of course also costs associated with UI benefits provision, and the one most commonly mentioned is the potential disincentive effect on the worker to search and accept a job while being eligible to receive UI benefits. Indeed, it has often been observed that longer and higher UI benefits are associated with longer spells of unemployment (e.g. Krueger and Meyer, 2002). However, recent research has shown that this correlation is not necessarily driven by the disincentive effect on labor supply or search effort as has commonly been claimed. Chetty (2008) finds that for the US, the increase in unemployment duration with longer UI benefits only holds for households which have a very low level of wealth and are therefore credit constrained. This implies that it is not primarily the disincentive on labor supply that drives longer unemployment spells, but a liquidity constraint which UI benefits help to alleviate. If this is the case, then the longer time spent unemployed is not a costly distortion but in fact a socially beneficial effect: UI benefits ease the

⁶ In the US for instance, the median unemployed person has less than \$250 in liquid net savings prior to job loss (see Chetty, 2010).

distortionary credit constraint and allow households to allocate their time and resources more efficiently (on child care, health care, job search etc.). Other studies using data for Germany (e.g. Schmieder et al., 2009) have shown that the increase in unemployment caused by extensions of UI benefits is moderate, and Card et al. (2007) show using Austrian data that most of the effect is driven by the beneficial liquidity channel.

In a severe recession, any remaining negative effect of UI benefits provision on employment is likely to be small: When vacancies are scarce relative to the pool of unemployed workers, any job not taken up by one worker (be it because of UI benefits or some other reason) should be quickly filled by another. Finally, with respect to fiscal costs, estimates for the US by the *Congressional Budget Office* suggest that increasing aid to the unemployed carries the highest cost effectiveness due to its direct and immediate impact on consumption and aggregate demand.⁷ Beyond a certain level of unemployment duration (say six months), the provision of UI benefits should be tied to individuals carrying out some part-time work or engaging in job training so that they maintain some attachment to the labor force (Nickell, 2010). Although the extension of UI benefits makes sense in the context of the US, it should not be viewed as a universal recommendation for all countries in recessions, especially European countries where the entitlement periods are already relatively long.

V. Policy Responses: Accelerating Recovery in Jobs

A. Dual Employment System

Over the past 20 years, a number of OECD countries tried to increase labor market flexibility by encouraging temporary work contracts that were not subject to the strict employment protection that applied to permanent contracts. This led to a fast expansion of temporary employment. In Spain about 30 percent of employed persons were under temporary contracts, the highest level in the OECD—see Annex 2 for a discussion of the determinants of the share of temporary workers.

Due to this increased flexibility, employment in countries with a pervasive dual employment system should be more responsive to output changes. This can indeed explain the situation in Spain, where employment declined by 20 percent during the Great Recession, with the vast majority of the job losses having occurred in the temporary workforce (IMF, 2010a). A review of Spain's employment experience relative to that of other countries concluded that “temporary contracts became the weak link in labor markets during the recent crisis, leading to large employment losses, affecting disproportionately some sectors, and making other possible shock absorbing mechanisms almost irrelevant” (IMF, 2010b).

In principle, the dual employment should deliver benefits during the recovery as firms should be more willing to hire back people on temporary contracts than to add permanent workers. Whether this turns out to be the case remains to be seen. But even if this were to happen, there are concerns about the longer run fairness of the system. Countries that have a higher share of temporary workers tend, not surprisingly, to have more disparity (in terms of wage and benefits) between the permanent and temporary workforce. These disparities risk becoming entrenched as the temporary

⁷ Between 8 and 19 years of full-time equivalent employment are predicted to be created per million dollars of budgetary cost (see CBO, 2010).

workforce has less access to on-the-job training and thus acquires less human capital than their permanent peers, which in turn worsens their prospective employment opportunities.

In addition to equity concerns and the potential harm to social cohesion, there is also compelling theoretical and empirical evidence (e.g. Blanchard and Landier, 2002; Jaumotte, 2010; and Box 2 in this paper) that the co-existence of a flexible temporary workforce and a highly protected permanent workforce can in fact increase unemployment and thus turn out to be inefficient. This perverse effect of a two-tier system on unemployment is due to a high turnover of low-productivity jobs that, on aggregate, lower output and employment.

B. Job Subsidies

To directly stimulate labor demand, subsidies (given as direct job or wage subsidy or reduction in payroll taxes) were targeted at specific groups of the labor force most vulnerable to joblessness: the long-term unemployed and/or youth (e.g. in Austria, Finland, Portugal, Sweden, Switzerland). Some countries also targeted job creation in certain hard-hit regions (Korea, Mexico) or specific sectors (e.g. services in Japan).

While these measures are potentially effective at preventing mass lay-offs (or smooth them out over time) and stimulate net employment growth, it is important that they remain targeted and temporary. This is because it is inherently difficult to design hiring subsidies that are effective at the right margin: subsidies could be given to jobs that would have been created anyway (deadweight loss), or to jobs that should not be created or maintained in the future. In the long run, job destruction in certain firms and industries is inevitable and necessary for a productive factor allocation.⁸ However, as is the case with short-time work, in deep recessions, the potential inefficiencies arising from hiring subsidies are arguably less severe than the consequences of increasing or persistent unemployment. The specific targeting strategies that most countries have followed also serve to reduce potential misallocation of subsidies as they should spur hiring for groups that are most adversely affected and least likely to be rehired in the absence of the subsidies. Arguments in favour of hiring subsidies, in particular for low-wage workers, have also been put forward by Phelps (2006).

In a comparison between short-time work and job subsidies, if massive job destruction can be avoided with short-time work, it is arguably preferable in the short run as it spreads the costs and benefits across workers, firms and the government. Short-time work is also more preferable in circumstances where employers expect the downturn to be rather temporary, as was the case in Germany. However, if the expectations of a downturn are more entrenched and the incentives to retain workers weak, then a direct job subsidy might be the only effective policy against mass lay-offs in the short-run. In some countries, such as the United States and Spain, jobs recovery is tied to tackling simultaneously problems in housing and construction.

⁸ A summary of the various subsidy schemes in OECD countries is given in OECD (2010), Ch. 1.

VI. Conclusions

Labor markets remain in a dire state. Over 200 million people across the globe are unemployed. Nearly three-fourths of the increase in the number of unemployed people during the Great Recession has occurred in the “advanced” (i.e. high-income) economies. Youth unemployment and long-term unemployment have increased substantially in most advanced countries. If the effects of past recessions are a guide, these developments can exact a heavy human toll.

To their credit, most countries mounted a strong three-part policy response to try to minimize these costs. Broadly speaking, the response had three parts: (i) support *aggregate demand* through monetary and fiscal policy actions; (ii) *ease the pain* in labor markets through short-time work programs and provision of unemployment insurance benefits; (iii) *accelerate jobs recovery* through the provision of subsidies of various kinds.

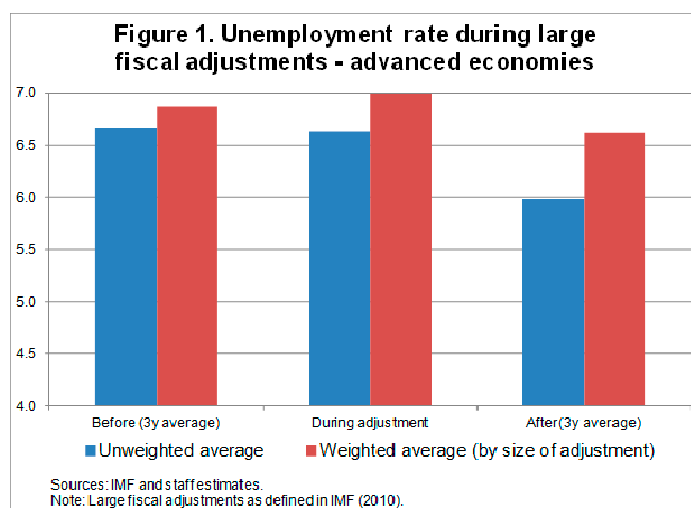
Over the remainder of this year and next, the three-part strategy adopted during the crisis should remain in place, though the relative importance of the parts should shift over time as—and if—recovery takes hold. And the relative importance should differ across countries depending on their specific circumstances.

- ***Maintaining support for aggregate demand:*** A recovery in aggregate demand is the single best cure for unemployment. Hence as a *general strategy*, most advanced economies should not tighten fiscal policies before 2011, because tightening sooner could undermine the recovery. The consolidation plans that these countries have for 2011 imply an average change in the structural balance of 1¼ percentage points of GDP. A more severe consolidation would stifle still-weak domestic demand. Clearly, however, the fiscal situation varies across countries, requiring adaptation of this general strategy to the available fiscal space. Monetary policy remains an important policy lever to support aggregate demand. Inflation pressures are subdued—headline inflation is expected to remain around 1¼-1½ percent in 2010 and 2011. Monetary conditions can thus remain accommodative for the foreseeable future in most advanced economies.
- ***Easing the pain:*** As recovery takes hold, subsidies to short-time work could be phased out over the coming year. Provision of UI benefits should be tied to requiring active job search, training or part-time social work, so that the unemployed maintain some attachment to the labor force.
- ***Jobs recovery:*** The potential costs and inefficiencies of hiring subsidies are arguably less severe than the costs of persistent unemployment. The specific targeting strategies that most countries have followed should serve to reduce potential misallocation of subsidies by spurring hiring for groups that are most adversely affected.

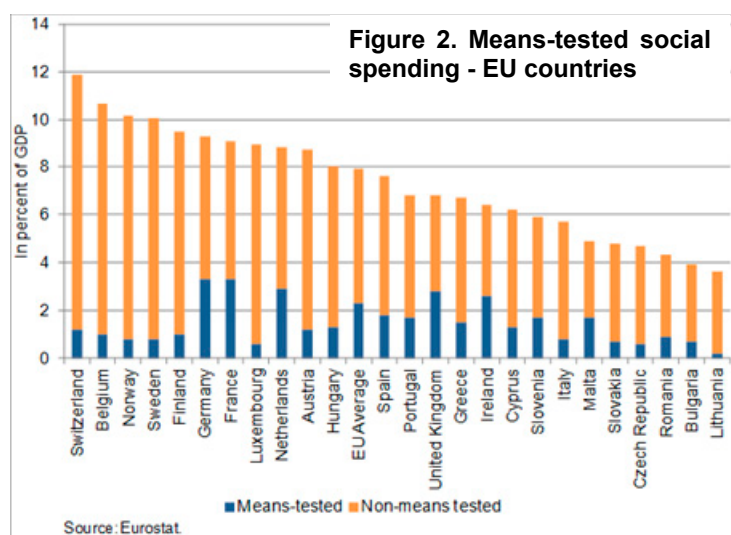
Annex 1. Fiscal Adjustment and Income Distribution in Advanced Economies

Fiscal consolidation can increase income inequality in the short term, but the duration and magnitude of this effect depends on the growth response and the composition of fiscal adjustment. Adverse short-term effects are attributable mainly to rising unemployment. However, adjustment-induced changes in government expenditure and revenue policies that redistribute income can also play a critical role.

Fiscal adjustment reduces output and increases unemployment in the short run due to positive fiscal multipliers, but these effects are reversed over the longer term (Blanchard and Perotti, 2002; Spilimbergo et al., 2009). Consistent with the stylized facts on the business cycle, fiscal consolidation may lead to a decline in the share of wages within a few quarters by lowering demand and output, thus putting upward pressure on unemployment and downward pressure on wages (Rotemberg and Woodford, 1999). Inequality of labor income widens if low-wage workers are hit harder (Agenor, 2002) or employers start hoarding skilled labor (Mukoyama and Sahin, 2006). The duration of these effects will depend on how quickly and strongly private demand responds to fiscal shocks. In episodes of large fiscal adjustment, consolidation has been associated with increases in unemployment during the early years. Larger adjustments are associated with greater persistence in unemployment (Figure 1), especially if during the downturn there is an increase in structural unemployment (Mocan, 1999; Galbraith, 2009). Over the longer term, the effects of fiscal consolidation on unemployment are reversed (Clinton et al., 2010).



Improved targeting of expenditures can help reduce the effects of fiscal adjustment on income distribution. Large and durable fiscal adjustments have often been associated with significant expenditure cuts, including in public cash transfers (Alesina and Perotti, 1997; Alesina and Ardagna, 2009). In Europe, these transfers have been shown to lower income inequality (as measured by the Gini coefficient) by about 9 percentage points (OECD, 2008), so reductions in these outlays may contribute to widening income inequality during adjustment episodes.¹ However, substantial fiscal adjustment can be associated with relatively small changes in income inequality if expenditure reductions are accompanied by efforts to better target these benefits—as in Denmark, Germany, and Sweden.² The fact that a small share of social spending in the EU is means-tested (Figure 2) suggests that there may be ample scope for reducing spending without adverse effects on inequality. In contrast to expenditure cuts, revenue measures, in particular those related to income and wealth, are likely to reduce income disparities due to progressive tax systems in advanced economies (OECD, 2008).³ However, if taxes are already high, efficiency considerations place a limit on how much adjustment should be achieved through tax adjustment.



¹ In the United States, Japan, and Canada, by comparison, social spending plays a less critical role in equalizing incomes.

² In Denmark and Germany, changes in household income distribution data (OECD, 2008) suggest an increase in the progressivity of transfers during large fiscal adjustments. For a description of targeting efforts in Sweden, see IMF (2001).

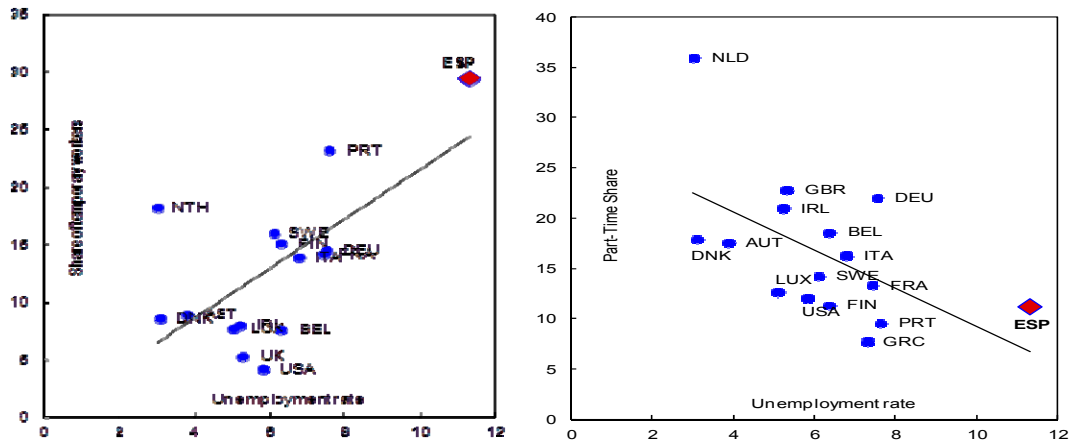
³ The equalizing effects of revenue-based adjustments in the advanced economies have, to some extent, been offset by reductions in marginal tax rates. Top marginal personal income tax rates in OECD countries have been reduced considerably over the past decades (Mankiw et al., 2009).

Annex 2: What Determines the Use of Temporary Workers?

Labor market institutions and policies are likely to be important determinants of the share of temporary workers. Empirical estimates using data on a sample of 20 OECD countries during the period 1985-2007 (or maximum years available) show the following: (i) The share of temporary workers is boosted by higher unemployment benefits and a higher tax wedge. Presumably, because these variables lower labor demand, employers are more able to impose flexible labor contracts. (ii) Lower product market regulation increases the share of temporary workers. (iii) High employment protection of permanent workers increases the share of temporary workers. This is true whether one uses the overall indicator of employment protection for permanent workers or its subcomponents (procedural inconvenience, notice period and severance payments for fair dismissals, and difficulty of dismissal). The most robust effect though comes from the difficulty of dismissal, which mostly refers to unfair dismissals (definition of justified or unfair dismissal, compensation following unfair dismissal, possibility of reinstatement following unfair dismissal, and length of trial period). The results thus suggest that reducing employment protection of permanent workers could substantially reduce the share of temporary workers. For instance in Spain, bringing the three components of employment protection of permanent workers to the minimum level observed in the EU15 would reduce the share of temporary workers by a total of 13.5 percentage points.

Are reducing the unemployment rate and the share of temporary workers compatible or is a trade-off involved? A simple plot of the data (see the left panel of the figure) shows the two to be positively correlated, suggesting that they could likely be reduced simultaneously. The positive association may reflect various factors: (i) an adverse labor demand that leads both to a high unemployment rate and a high share of temporary workers; (ii) the attempt of countries that have a high unemployment rate to reduce it (not very successfully) by allowing new types of contracts; or (iii) the higher rotation of workers when the share of temporary contracts is larger, leading to higher frictional unemployment; see Blanchard and Landier (2002) and Cahuc and Postel-Vinay (2002).

Interestingly, a higher share of part-time contracts is associated with a lower unemployment rate (see right panel of the figure). While both types of contracts provide additional flexibility, most part-time contracts are voluntary; hence they do not reflect adverse labor demand but rather seem to reflect supply side choices. They encourage the participation and employment in the labor market of groups that would otherwise not work, e.g. women especially with children, youth, and older workers.



This annex is based on Jaumotte (2010).

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