

# Labor Market Policy in the Great Recession

## Some Lessons from Denmark and Germany

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## Executive Summary

This paper reviews labor-market performance of Denmark and Germany during the Great Recession. From the mid-1990s through the onset of the Great Recession, Denmark had what were arguably the most successful labor-market outcomes in the OECD, but the country has suffered in recent years. Germany, on the other hand, struggled with high unemployment, slow job growth, and rising wage inequality through much of the period between unification and the onset of the Great Recession, but has outperformed the rest of the OECD since. Labor-market institutions may explain the different experiences of the two economies. Danish institutions – built around numerically flexible employment levels and strong income security for workers – appear to perform well when the economy is at or near full employment. In good times, the country’s expensive active labor market policies work to connect unemployed workers to available jobs. In a severe downturn, however, where the overwhelming cause of unemployment is a lack of aggregate demand, institutions that encourage adjustment through employment are a liability and policies that seek to “activate” workers are not particularly effective. German labor-market institutions, which emphasize job security by keeping workers connected to their current employers, may have drawbacks when the economy is operating near full employment because they may discourage the efficient reallocation of workers from firms and industries where demand is falling to firms and industries where demand is on the rise. These same institutions, however, appear to have been well-suited for coping with the Great Recession because they encouraged firms to cut hours rather than workers, sharing the burden of the downturn more widely and helping firms keep their workforce in place and ready for the subsequent upturn.

## Introduction

The Great Recession has produced the worst and most sustained labor-market outcomes that the United States has experienced since the Great Depression. At its peak, 15 million people were unemployed by the official count, and about 25 million were underemployed by a broader definition that includes those who are working part-time because they can't find full-time work or who have given up on finding a job altogether. US economic policy makers responded to the downturn with a mix of macroeconomic and labor-market policies that certainly reduced the severity and the duration of the devastation. Nevertheless, almost two full years into the official recovery, job creation is anemic and unemployment and underemployment remain at staggering levels.

The Great Recession started in the United States, but it quickly spread to the rest of the world. Some countries fared even worse than the United States. Many, though, seem to have weathered the crisis better. This paper reviews the experience of 21 rich countries that are all members of the Organization for Economic Cooperation and Development (OECD) – a group of economies that offer a standard of living roughly comparable to that of the United States – in search of possible lessons for the United States.

**Figure 1** shows the percentage-point change between 2007 and 2009 in the unemployment rate across these 21 rich countries. Since national definitions of the unemployment rate vary somewhat, the figure uses “harmonized” unemployment rates prepared by the OECD. The figure covers a period that starts in 2007 – the year just before the downturn hit most economies – and ends in 2009 – the year that the economy reached its trough in most countries.<sup>1</sup> After Spain (9.7 percentage points) and Ireland (7.2 percentage points), the United States had the third highest increase in unemployment (4.7 percentage points). In the other OECD economies, the increase in unemployment was less than 2.5 percentage points. Strikingly, the unemployment rate actually fell in Germany (-1.2 percentage points).

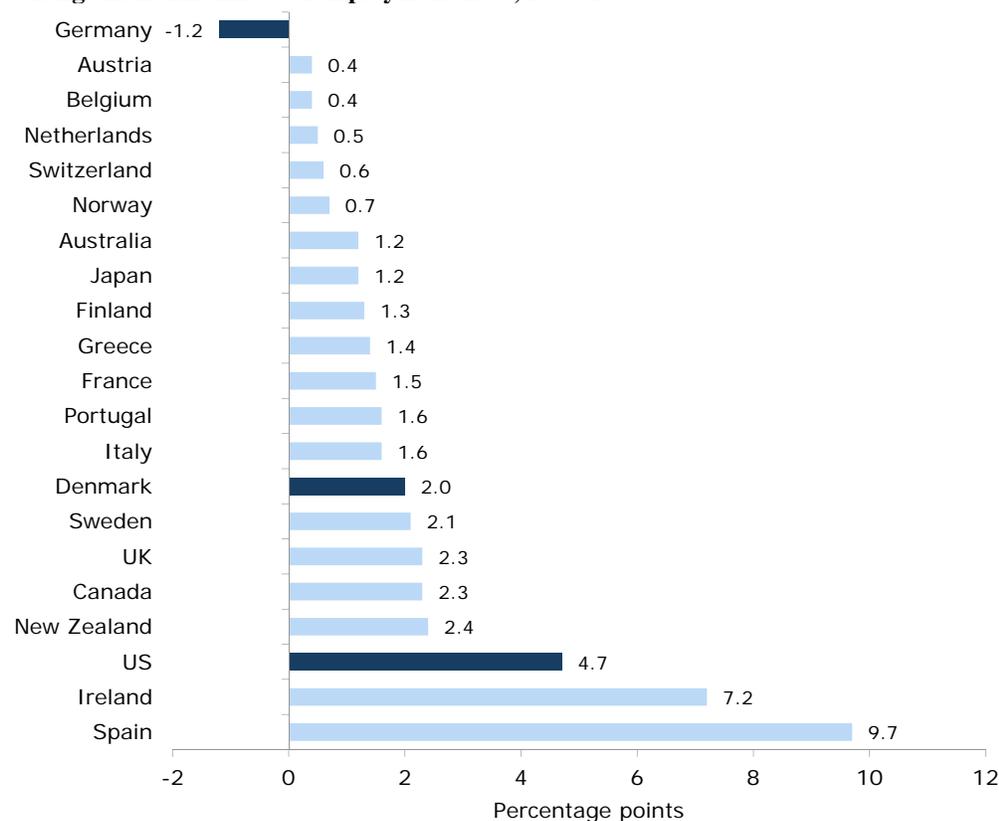
Economic theory suggests three possible reasons for the different unemployment experience. The first is that the size of the negative demand shock might have varied across these economies. It could be, for example, that Spain suffered a larger negative demand shock than the United States, which in turn experienced a worse demand shock than most of the rest of the OECD. Since we can't directly observe demand shocks, we can never be completely sure. But, all of the evidence – primarily the change in gross domestic product (GDP) – suggests that the demand shocks were large and negative across all of these economies. The shock to Germany, for example, was likely larger than the one that hit the United States: between 2007 and 2009, German GDP fell 3.8 percent, compared to a 2.6 percent decline in the United States.<sup>2</sup>

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1 The National Bureau of Economic Research marks the beginning of the recession in the United States at December 2007, with the trough in June 2009. The downturn generally hit the rest of the world later, in 2008. For a nice summary of the timing of the recession in European economies, see Cameron (2010), Table 2.

2 The German economy was particularly vulnerable to the Great Recession because world trade collapsed in the downturn and exports are such an important part of the German economy. The main source of the shock in the United States was the collapse in the residential housing market. Construction and real-estate-related employment plummeted, but the main blow came through the (still not quite complete) deflation of the housing bubble, which greatly reduced household net worth and induced a severe contraction in spending. See, for example, Baker (2009a) and Bivens (2011).

**FIGURE 1**  
**Change in Harmonized Unemployment Rate, 2007-2009**



Source: OECD.

A second possible explanation for the different unemployment experiences are different macroeconomic policy responses. Even if all countries experienced exactly the same negative demand shock, counter-cyclical macroeconomic policy – expansionary monetary and fiscal policy – could have reduced the observed decline in GDP more in some countries than in others. Macroeconomic policy responses did vary widely across the OECD, but most analyses of macroeconomic policy suggest that the United States did better than average.<sup>3</sup> The Federal Reserve Board lowered interest rates farther and faster in the United States than, for example, the European Central Bank did in Europe.<sup>4</sup> The United States also implemented the largest explicit fiscal stimulus package (as a share of GDP) among the major OECD countries. Other countries passed smaller stimulus packages, and automatic stabilizers were more important parts of the fiscal response elsewhere, but, even taking all these measures into account, the fiscal response was likely faster and larger in the United States.

<sup>3</sup> See, for example, OECD (2009) and ILO (2009). For a dissenting view on comparative fiscal policy, see Aizenman and Paricha (2011), but note that their definition of fiscal stimulus is narrow, excluding tax cuts and increases in unemployment benefits, for example.

<sup>4</sup> For a nice illustration of key interest rates across a sample of the major OECD economies, see ILO (2011), Figure 2.2.

A final possible explanation for the different international unemployment experience in the downturn is the structure of labor markets. National labor-market institutions likely vary in the way that they translate a given decline in GDP into unemployment. The preceding discussion suggests that the United States experienced a negative demand shock somewhere in the middle of the OECD experience and responded in a way that partly mitigated the negative impact of that shock. If so, the large rise in US unemployment suggests that US labor-market institutions offered a particularly harsh trade-off between falling GDP and unemployment. By contrast, Germany appears to have experienced a larger negative demand shock and to have responded to that shock with less aggressive monetary and fiscal policy than the United States, yet unemployment *declined* in Germany between 2007 and 2009. The German labor-market institutions appear to have handled the demand shock extremely well.

This paper will focus on this third possible reason for international differences in the labor-market response to the Great Recession: national labor-market institutions. The second section of the paper presents a brief framework for thinking about how labor-market institutions and policies mediate the relationship between GDP and employment. The third section reviews the experience of two national economies: Denmark, which operated what was arguably the most successful labor market of the 2000s, and Germany, which has had remarkable success in resisting the international rise in unemployment since 2007. The final section concludes with some possible lessons for the United States.

## Labor Markets and Macroeconomic Shocks

Once a negative demand shock has hit and macroeconomic policy has been deployed in response, the path of employment and unemployment depends largely on the labor market. For the 21 rich OECD countries, **Figure 2** graphs the change between 2007 and 2009 in the unemployment rate against the corresponding change in real GDP. Over this two-year period, real GDP fell in every country except Austria.

The figure includes a regression line that traces the average relationship between unemployment and GDP across the countries. Most of the countries in the sample (including Denmark) are clustered close to the average experience. These data suggest that the national labor-market institutions in place in these countries converted a one percentage-point decline in GDP into about a 0.4 percentage-point increase in unemployment. Several of the countries, however, lie well off the line, indicating that they differ substantially from the OECD average. Germany, for example, falls well below the regression line. Any given decline in German GDP had far less impact on the unemployment rate than at the OECD average. The United States, Spain, and Ireland, meanwhile, all lie well above the regression line, suggesting that GDP declines in these countries are much more costly in terms of unemployment than was the case for the OECD in general.

**FIGURE 2**  
**Unemployment and GDP, 2007-2009**



Source: Analysis of OECD and Conference Board data.

In broad terms, labor markets can adjust to macroeconomic demand shocks in some combination of three ways (with an important caveat, which will follow). Either employment can fall: fewer workers working the same number of hours as before (at the same hourly wage) meet the new lower output demanded. Or average hours per worker can fall: the same number of workers spend fewer hours per week to produce the new output level.<sup>5</sup>

Imagine that a particular decline in aggregate demand requires that employers reduce their total wage bill by ten percent. The wage bill ( $B$ ) is equal to the total number of employees ( $E$ ), times the average number of hours they work ( $H/E$ ), times the average hourly wage ( $W$ ):

$$B = E * (H/E) * W$$

Employers could cut the wage bill by reducing employment by ten percent ( $E$ ), or by reducing the average hours per worker ( $H/E$ ) by ten percent (or, of course, by some combination of the two). As the discussion below will suggest, labor-market institutions play a crucial role in determining exactly where the adjustment falls. In Denmark, the United States, and most other countries in the OECD,

<sup>5</sup> A third possibility is that total employment and average hours remain constant, but the hourly wage falls. Assuming that average productivity remains constant, however, the wage cut alone doesn't lower output to match the new lower level of demand facing the firm.

much of the adjustment has fallen on employment (E), resulting in substantial increases in unemployment. In Germany, essentially all of adjustment has occurred through changes in average hours (H/E), resulting in a counter-intuitive decline in unemployment there.

One caveat applies, however. These adjustment mechanisms are incomplete on their own. One of the central insights of Keynes's *General Theory* was that cuts in workers' incomes, whatever form they take, cannot restore full employment in the face of a shortfall in aggregate demand. The very action of individual employers cutting workers take-home pay in order to bring their individual wage bills into line with the lower level of aggregate demand has the effect of further lowering aggregate demand. Labor-market adjustments take place, but in the middle of an aggregate demand slump, they cannot restore full employment without offsetting expansionary macroeconomic policy or some new, positive, aggregate demand shock. This new, positive demand shock could take many forms, some of which are more desirable than others. The short US recession of 2001, for example, ended primarily because of demand fueled by the housing bubble. Economists have long argued, however, that wage-led growth offers a more sustainable avenue for reviving and maintaining aggregate demand.<sup>6</sup>

## The Great Recession in Denmark and Germany

Labor-market institutions have been at the center of the discussion of labor-market performance since at least the 1980s, when unemployment rose sharply and remained stubbornly high in most of the major OECD economies. A standard view, encapsulated in the OECD's 1994 *Jobs Study*, maintains that labor-market institutions are the primary determinant of labor-market performance. In this framework, labor-market institutions should first and foremost seek to maximize "flexibility"; other economic and social goals of labor-market institutions – including economic security and equity – are distinctly secondary. This view generally leaves aside the role that macroeconomic policy plays in the smooth functioning of the labor market. To the extent that this approach does acknowledge the importance of macroeconomics, it is usually to argue that institutions such as unions, unemployment insurance, and employment protection legislation restrict the effectiveness of macroeconomic policy by introducing "rigidities" that channel expansionary policies toward inflation, not job creation.<sup>7</sup>

In the mid-2000s, this standard view was updated and amended<sup>8</sup> in the face of substantial evidence that countries with what qualified as "rigid" labor markets by many of the usual indicators (high union coverage rates, generous unemployment benefits, strong employment protection legislation, and others) were performing quite well. This new thinking brought explicit recognition to two key ideas. The first was that the previous understanding of flexibility was too narrow. Unemployment insurance, for example, might reduce incentives for the unemployed to accept jobs, but these same benefits might improve the quality of eventual job matches by giving workers more time to search. A second key idea was that the interaction of labor-market institutions matters more than the

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6 See Kalecki (1991), Berg and Ostry (2011), Coates (2011), and Palley (2011).

7 For a summary of the debate and a critique of the orthodox view, see, among many others: Howell (2005), Schmitt and Wadsworth (2005), and Baccaro and Rei (2007).

8 For a succinct summary of the amended thinking, see OECD, 2006, Chapter 3.

specific institutions separately. In some contexts, high unemployment benefits might raise the unemployment rate. In others, the existence of generous unemployment benefits might persuade workers and unions to accept lower levels of legal employment protection, resulting in a more, not a less, dynamic labor market.

The rest of this section reviews the recent experience of two countries with very different experiences before and after the Great Recession. Denmark had what was arguably the OECD's best performing labor markets before the Great Recession, but has suffered since 2008. German labor markets, meanwhile, were generally struggling from shortly after unification through about 2007, when suddenly Germany began to outperform every major economy in the OECD.

## Denmark

The experience of the Danish economy from the mid-1990s through the Great Recession did a great deal to change the consensus view on the need for labor-market “flexibility” at all costs.<sup>9</sup> In 2007, just before the downturn, the Danish unemployment rate was 4.0 percent (compared to 4.6 percent in the United States) and the employment-to-population rate was 77.1 percent (compared to 71.8 percent in the United States).<sup>10</sup> Low-wage work was rare,<sup>11</sup> and income inequality was near the lowest levels in the OECD.<sup>12</sup> Yet, by OECD standards, Denmark had high taxes, high unionization rates, generous unemployment benefits, and a costly system of education, training, assistance, and incentives for unemployed workers.

The Danish model – often described as being built around “flexicurity” – worked, it seems, because it combined a high level of “flexibility” for employers with equally high levels of “security” for workers. The flexibility came primarily in the form of low levels of legal employment protections combined with a willingness of Danish unions to accept layoffs. The security came in the form of high wages, strong unions, and generous unemployment insurance and other benefits.<sup>13</sup> A defining Danish labor-market institution has been its collection of “active labor market policies” (ALMPs). These policies targeted at unemployed workers include education and training, extensive assistance in job search, financial incentives, subsidized employment, and, in some cases, even direct public-sector employment. ALMPs increase flexibility by moving the unemployed through the generous unemployment benefits system and enhance security by improving skills and providing temporary, subsidized employment opportunities for workers who otherwise might spend long periods unemployed.

From about the middle of the 1990s through the onset of the Great Recession, the system produced enviable results. The unemployment rate fell rapidly, from over ten percent in 1993 to under five percent by 2000, a range where it remained until 2008. Most accounts explain these results by emphasizing the way that the flexicurity institutions supported a dynamic labor market that was capable of rapidly reallocating workers from firms and sectors in the economy where demand was falling to firms and sectors where demand was on the rise.<sup>14</sup> Politically, the system worked because

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9 See, for example, OECD (2004, 2006) and European Commission (2006).

10 Rate is for population ages 15 to 64; see OECD, *Employment Outlook 2010*, Table B.

11 See Mason and Salverda (2010) and Westergaard-Nielsen (2008).

12 See OECD (2011), Figure 1.

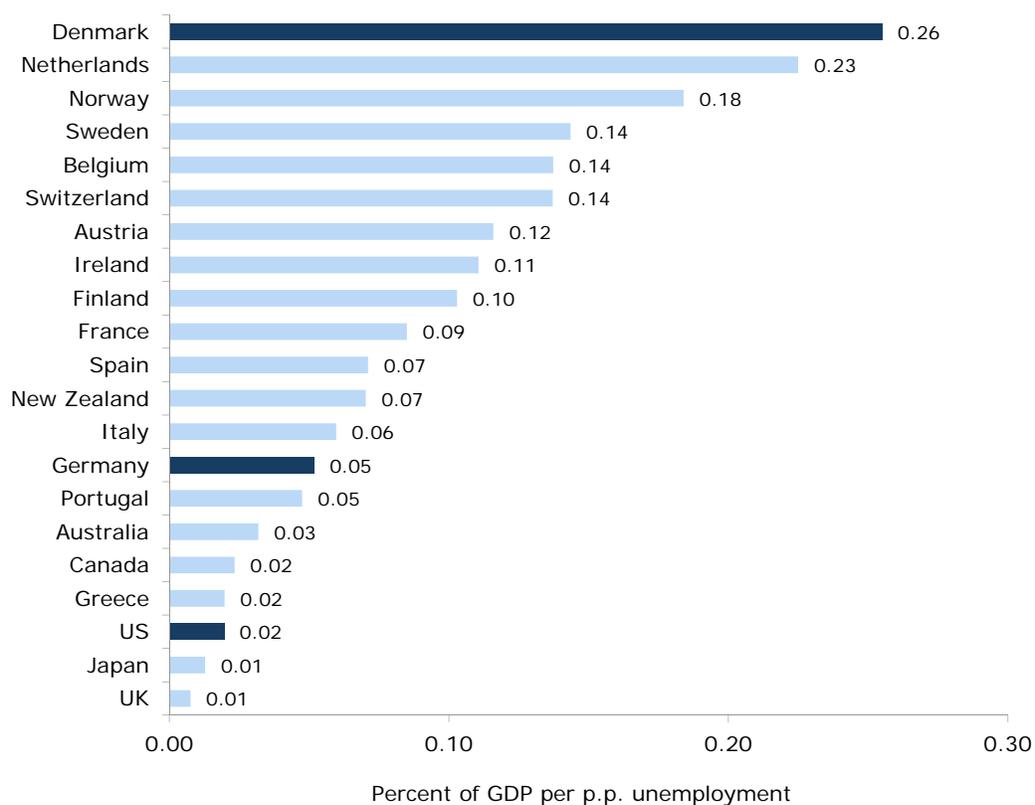
13 The Danish unemployment insurance system is administered by the country's unions, not the government.

14 See OECD (2004, 2006) and European Commission (2006).

workers and their unions felt secure enough about their incomes to agree to only limited legal and negotiated job security. Employers accepted the higher taxes and an important economic role for unions because these were the political conditions that made the greater numerical flexibility possible.

Figures 3 through 7 put the salient features of the Danish system into international perspective. As **Figure 3** shows, Denmark has an exceptionally large commitment to ALMPs. The share of national GDP spent on ALMPs (per percentage-point of unemployment) was the highest in the OECD.<sup>15</sup> Using this standard measure, in 2007, before unemployment in Denmark increased, the country spent 0.26 percent of GDP per percentage point of unemployment – about twelve times more than the United States (0.02 percent of GDP per point of unemployment) and about five times more than Germany (0.05).

**FIGURE 3**  
**Expenditure on Active Labor Market Policies, 2007**

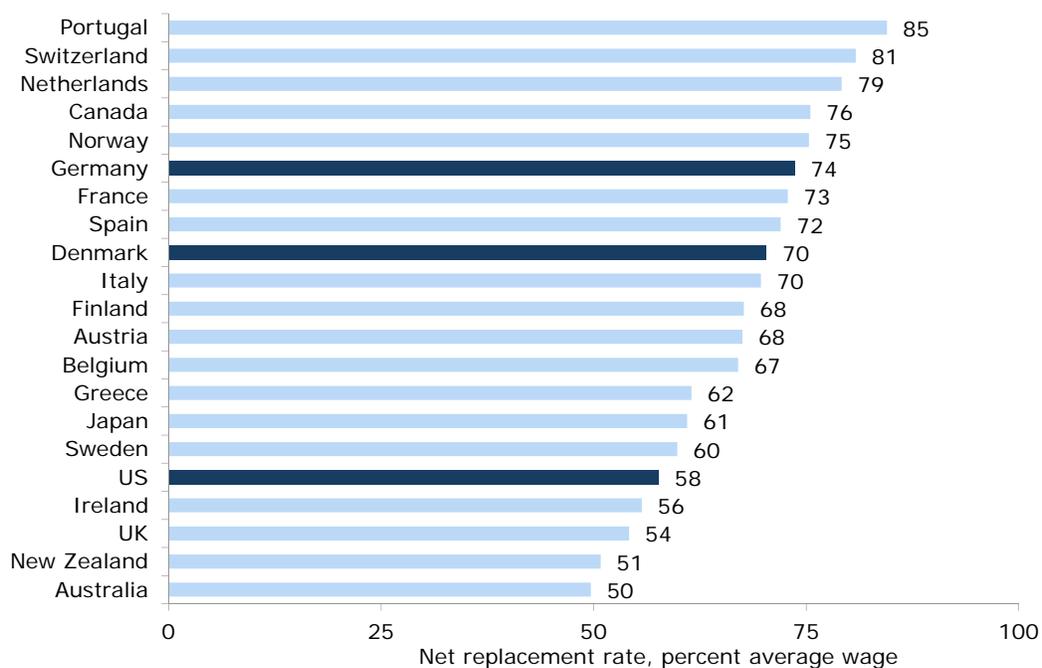


Source: Analysis of OECD data.

<sup>15</sup> Expenditures (as a share of GDP) per percentage point of unemployment is a standard measure of the generosity of national ALMP programs. Using only expenditures (as a share of GDP) would exaggerate the generosity of ALMP programs in the case of countries with high levels of unemployment. In the case of Denmark, dividing the total expenditures (as a share of GDP) by the unemployment rate emphasizes that the Danish system is exceptionally generous – per unemployed worker.

One of the standard justifications for the large scale of Danish ALMPs is that they are necessary to ensure that the unemployed don't get stuck in the country's generous, union-administered, unemployment benefit system. The OECD data in **Figure 4** support the view that unemployment benefits in Denmark are fairly generous by international standards. An "average" worker receives about 70 percent of the average wage during their initial period of unemployment, slightly less generous than Germany (74 percent), but more generous than the United States (58 percent).<sup>16</sup>

**FIGURE 4**  
**Generosity of Unemployment Insurance, 2009**

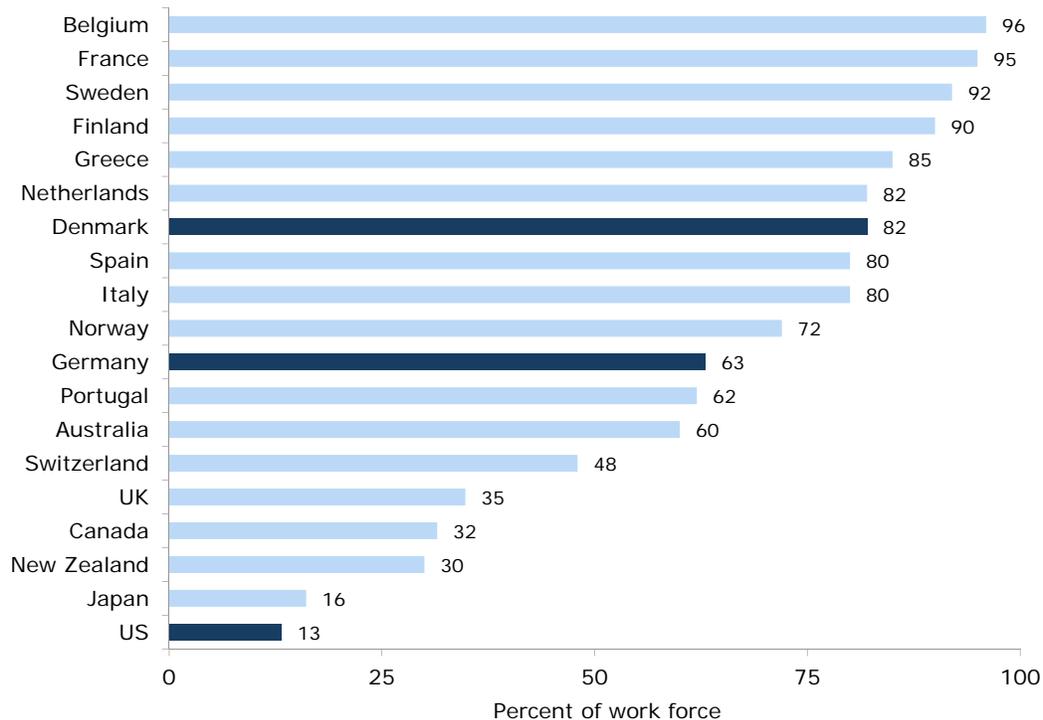


Source: Analysis of OECD data.

16 The figure shows the OECD's estimate of the (unweighted) average net replacement rate during the "initial phase of unemployment" for a worker at average earnings across six family types. These results are conditional on receipt of benefits, that is, the generosity estimate does not factor in the share of the unemployed who are eligible for and take up unemployment benefits. In the current downturn, take-up rates in the United States have been as high as three-fourths; in normal times, including earlier recessions, the take-up rate in the United States is typically between one-third and one-half.

Denmark is also heavily unionized. As **Figure 5** shows, over 80 percent of Danish workers are covered by a collective bargaining agreement, more than in Germany (63 percent) and far above the level in the United States (13 percent).

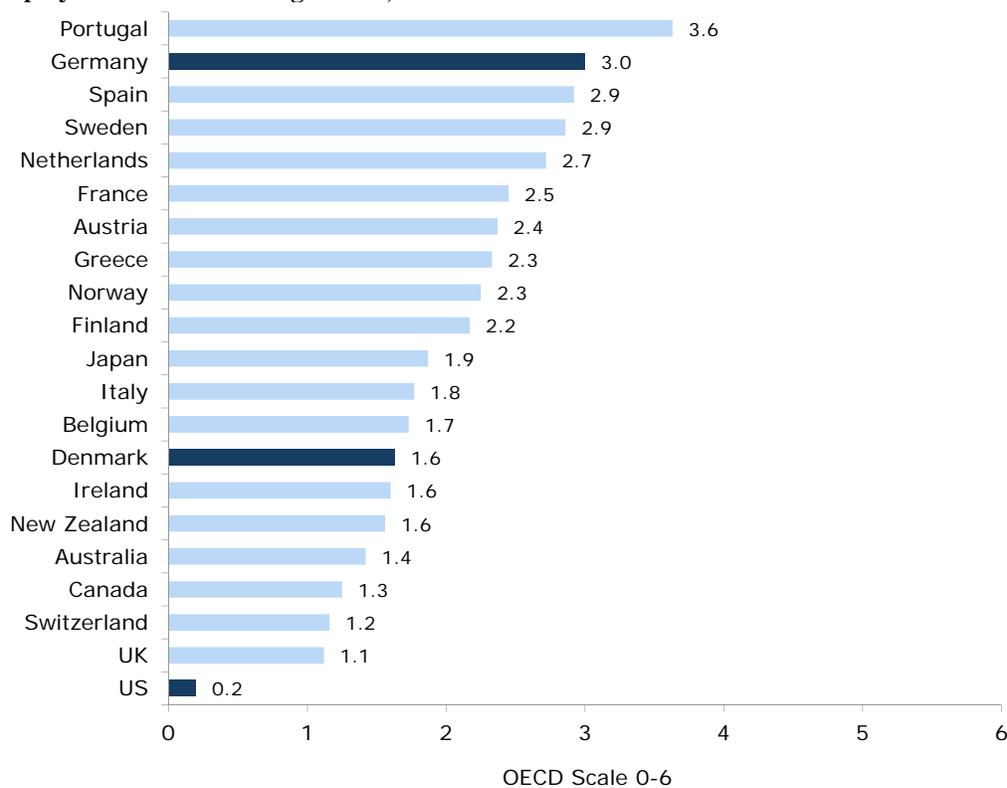
**FIGURE 5**  
**Collective Bargaining Coverage, 2007**



Source: Visser, ICTWSS data, <http://www.uva-aias.net/208>.

At the same time, Denmark provides a relatively low level of legal employment protection. **Figure 6** presents an index of the strength of employment protection legislation (EPL), based on the OECD's assessment of legal and bargained conditions on severance pay, advanced notification of dismissal, legal procedures related to unfair dismissal, and related issues. The index runs from zero (essentially no legal employment protections) to six (a very high level of legal employment protection). On this scale, Denmark (1.6) lies closer to the English-speaking economies (Ireland, New Zealand, Australia, Canada, the United Kingdom, and the United States) than it does to Germany (3.0), Sweden (2.9), and France (2.5), where employment protections are stronger.

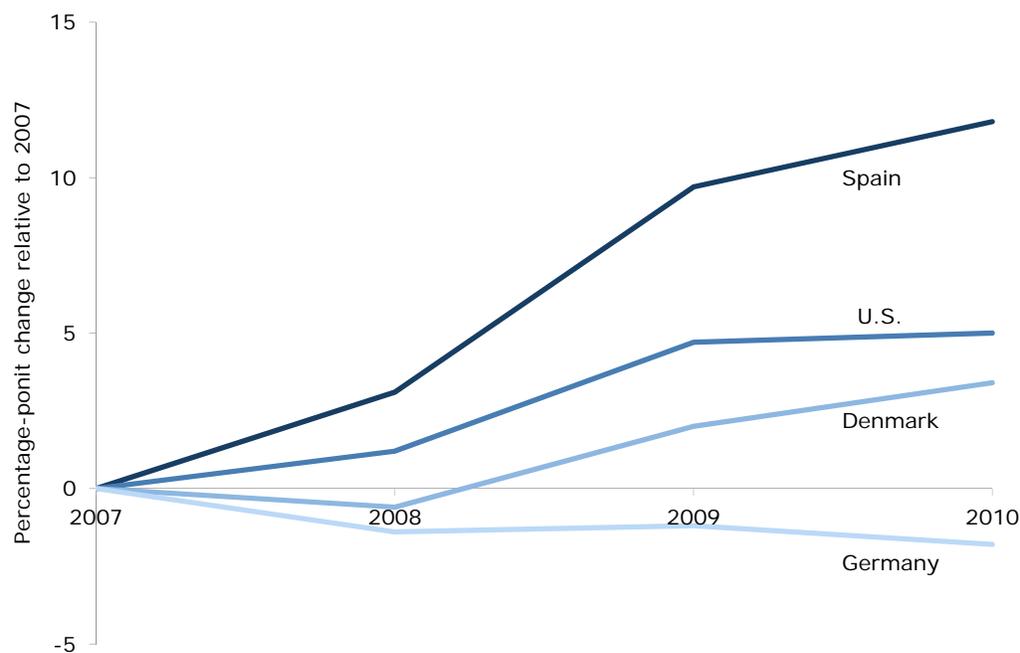
**FIGURE 6**  
**Employment Protection Legislation, 2008**



Source: OECD.

This combination of institutions performed well between the middle of the 1990s and the onset of the Great Recession. These same institutions, however, have not fared so well in the current downturn. **Figure 7** compares the increase between 2007 and 2010 in the unemployment rate in Denmark, Germany, the United States, and Spain (the OECD country with the largest increase in unemployment over the period). Between 2007 and 2010, the Danish unemployment rate almost doubled from 4.0 to 7.8 percent, more closely tracking the experience of Spain and the United States than experience of Germany.

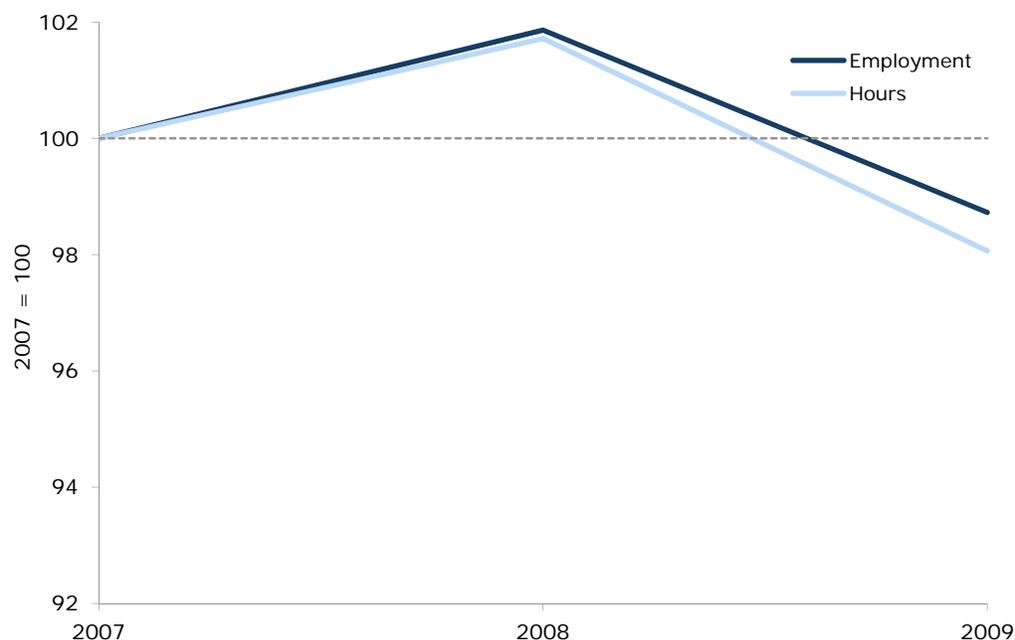
**FIGURE 7**  
**Change in Unemployment Rate, 2007-10**



Source: Analysis of OECD data.

**Figure 8** sketches the labor-market adjustment path in Denmark between 2007 and 2009. Total employment and total hours worked increased about two percent between 2007 and 2008 – the crisis hit Denmark later than most of the rest of the OECD. Between 2008 and 2009, however, total employment and total hours both fell sharply. Total hours fell to about two percent below their 2007 level, with almost all of this reduction in total hours stemming from a decline in the total number of workers. The Danish economy did not adjust to the labor-demand shock by lowering the average number of hours worked by the existing workforce, but rather, primarily by reducing the number of workers, with relatively small cuts in the average hours worked. In the framework discussed earlier, almost all of the adjustment fell on employment cuts and very little on average hours reductions.

**FIGURE 8**  
Change in Hours and Employment, Denmark, 2007-09



Source: Analysis of OECD data.

Why did the Danish system suddenly lose its luster? One explanation is that the same institutions that created a dynamic labor market in good macroeconomic times acted to accelerate job loss during the downturn. Low dismissal costs produced dynamism when there was sufficient macroeconomic demand to produce full employment. But, low dismissal costs encouraged employers to reduce employment (rather than hours) when aggregate demand fell. Meanwhile, the country's superb system of ALMPs was poorly equipped to deal with aggregate demand slumps. The majority of ALMPs seek to "activate" unemployed workers, by training them for or connecting them with available jobs. Even the best ALMPs, however, cannot connect workers to jobs if there are no jobs.

The Danish model worked well when aggregate demand was high enough to ensure full employment. When the economy was operating near full employment, the main economic

bottlenecks were on the supply side of the labor market (labor quality, the distribution of skills, and location of workers relative to jobs). When the bottlenecks were on the demand side, however, greater numerical flexibility did little to generate employment and helped to drive unemployment up. A real danger for Denmark going forward is that the cyclical flaws in the model will be used to dismantle rather than reform these institutions. The German case suggests that a combination of numerical flexibility – in hours – combined with moderate legal and bargained dismissal costs can produce far better outcomes in downturns. This experience should inform efforts to improve the ability of Danish institutions to respond to future periods of slack demand.

## Germany

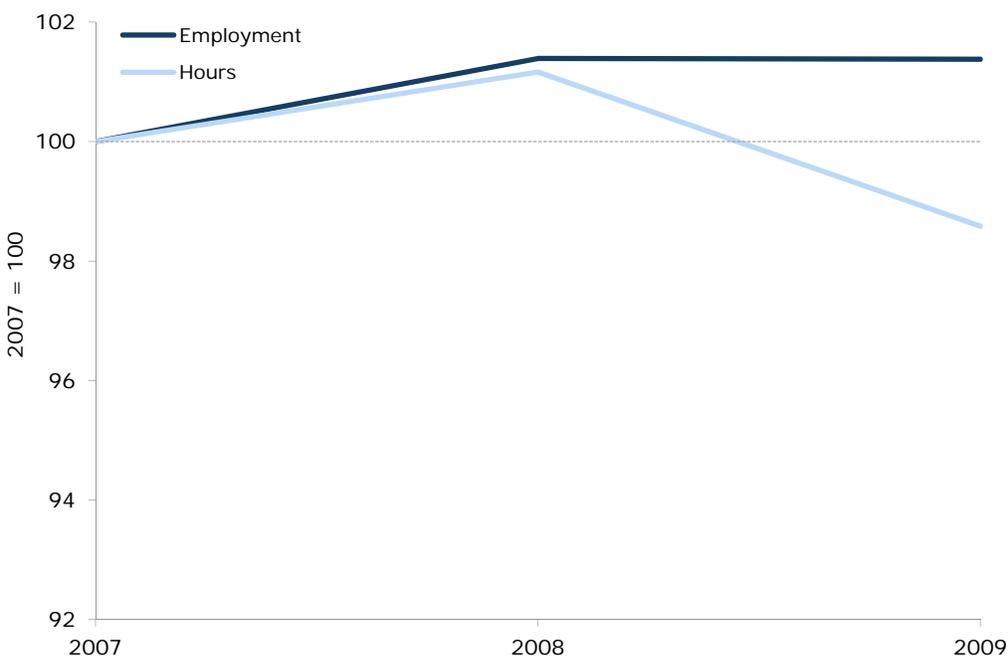
Before the Great Recession, Germany was no one's ideal model of labor-market performance. Unemployment was high, job creation was weak, and wage inequality was on the rise, primarily because of the sharp rise in low-wage and precarious employment that began in the mid- to late-1990s.<sup>17</sup> German companies were profitable and the country was a successful exporter, but the labor market was generally not delivering. The German labor-market's performance since the Great Recession, however, has been remarkable. In 2007, before the downturn, the German unemployment rate was 8.7 percent (using the OECD's internationally comparable measure, which differs slightly from the official German rate); by 2009, when the rest of the world was feeling the worst of the economic crisis, the unemployment rate in Germany had fallen to 7.5 percent.

The German unemployment rate dropped because labor-market adjustment fell entirely on hours, not employment (or wages). **Figure 9** shows the change in hours and employment between 2007 and 2009. The contrast with Denmark is striking. The Great Recession affected both countries later than in the United States. But once the downturn hit, total hours fell in Germany – to about 98 percent of 2007 levels – even as total employment remained constant. Effectively, reductions in the average hours worked absorbed all of the decline in labor demand in Germany. By contrast, in Denmark the reduction in labor demand fell strongly on total employment, with only small reductions in average hours worked per employee.

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<sup>17</sup> For a discussion of German and related European economic policy and performance since reunification, see Bosch (2008), Carlin and Soskice (2009), Leschke and Watt (2010), Möller (2010), and Schettkat and Sun (2009).

**FIGURE 9**  
**Change in Hours and Employment, Germany, 2007-09**



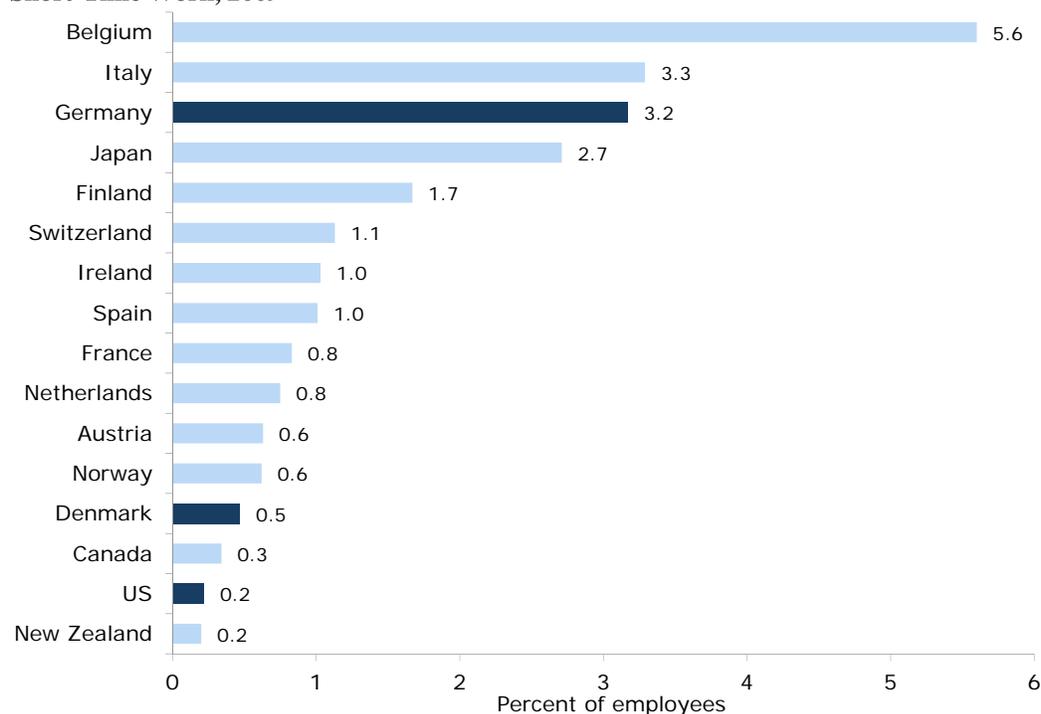
Source: Analysis of OECD data.

How did Germany manage this? A key element was the German system of short-time work (STW).<sup>18</sup> STW programs provide part-time unemployment benefits to workers who have had their hours reduced in response to declines in demand for their employers' products and services. In a traditional unemployment insurance program, if an employer needs to cut employment by 20 percent in the wake of a demand shock, the employer will layoff 20 percent of workers and, assuming that the laid off workers individually meet eligibility requirements, these workers will receive unemployment insurance benefits. In an STW system, the same employer could, instead, cut average hours for all employees by 20 percent, and each employee (again, assuming individual eligibility requirements are met) would receive 20 percent of the full-time unemployment insurance benefit. Germany had a long-standing STW system in place before the downturn, and participation increased rapidly by the end of 2008.<sup>19</sup> By 2009, Germany had one of the highest shares of its workforce enrolled in STW programs (see **Figure 10**).

<sup>18</sup> For discussions of STW in Germany and elsewhere in the OECD, see Vroman and Brusentsev (2009), Cahuc and Carcillo (2011), Hijzen and Venn (2011), and ILO (2011).

<sup>19</sup> See ILO (2011), Figure 3.5.

**FIGURE 10**  
**Short-Time Work, 2009**



Source: OECD (2010).

STW, however, was only part of the hours adjustment in Germany. According to an analysis by Fuchs and colleagues of the change in the average hours worked between 2008 and 2009, STW accounted for about 25 percent of the decline in average hours (see **Table 1**).<sup>20</sup> Employer-initiated reductions in working time – usually implemented through collective-bargaining agreements – were even more important than STW, accounting for about 40 percent of the fall in hours. Another 20 percent of the decline in hours was due to the debiting of workers’ working-time accounts. About two-thirds of German companies have working-time accounts in place, where employees who work more than the normally scheduled number of hours (or work weekends, evenings, and holidays, or under other circumstances) can “bank” these hours against future hours of work.<sup>21</sup> In the recession, many employers – with the agreement of workers and their unions – cut hours worked and paid workers out of the hours accumulated in these working-time accounts, rather than laying workers off. Reductions in overtime accounted for an additional 20 percent of the decline in average hours worked.

20 The original analysis is in J. Fuchs, M. Hummel, S. Klinger, E. Spitznagel, S. Wanger, and G. Zika. “Prognose 2010/2011: Der Arbeitsmarkt schließt an den vorherigen Aufschwung an,” IAB-Kurzbericht No. 18, Nuremberg. I rely here on the ILO’s (2011) presentation of their findings.

21 For a helpful discussion in English of the German system, see Fagan, Hegewisch, and Pillinger (2006).

**TABLE 1**  
**Average Hours Reductions in Germany, 2008-2009 (percent)**

Proportion of average hours reduction due to:	
Increased short-time work	25
Employer-initiated reductions in working time	40
Debiting working-time accounts	20
Reduced overtime	20
Source: OECD (2010) analysis of IAB (2009).	
Figures add to more than 100 percent because changes in holidays and two other categories increased average hours slightly.	

A review of the German experience suggests that several institutional features pushed employers to reduce hours rather than workers. Relatively high levels of legal employment protection (Figure 6) made it more expensive for firms to lay workers off than to reduce hours. Relatively high levels of collective-bargaining coverage (see Figure 5), combined with a union focus on job security, further raised the relative cost of lay-offs. The widespread presence of collective bargaining facilitated hours flexibility by implementing negotiated working-time banks and allowing for negotiated reductions in overtime and the usual work week. Together, this institutional structure gave substantial incentives to firms to prefer hours reductions to employment cuts, and gave workers incentives to do the same.

Germany faces its own set of institutional challenges. Critics of the German response to the Great Recession have argued that the strong emphasis on “labor hoarding” at the firm level may mean that the economy is not efficiently reallocating labor from lagging firms and sectors to growing firms and sectors. This argument, however, assumes that the problem facing German firms in the downturn is their individual or industry performance, rather than an across-the-board collapse in demand. In some respects, though, this concern presents the mirror image of the problem facing Denmark. The German system, as implemented since 2008, has done an excellent job coping with a deep recession, but a reliance on hours adjustments alone could conceivably create efficiency problems when the economy is operating closer to full employment. If an individual firm is facing a long-term decline in demand for its output, for example, it is not likely to be socially efficient – beyond a transition period – to adjust to that firm-specific decline in demand by keeping workers tied to the declining firm. But, this kind of reasoning suggests modifying the functioning of the STW system in good times, so as to ensure that STW does not impede the efficient reallocation of workers across firms and sectors when the economy is operating near full capacity. In fact, the German STW system already appears to incorporate this kind of flexibility across the business cycle. Before the downturn, participation in STW was limited to six months, but as the economy deteriorated, the maximum duration of STW was expanded successively to 12, 18, and then 24 months.<sup>22</sup>

<sup>22</sup> See ILO (2011).

## Some Lessons for the United States

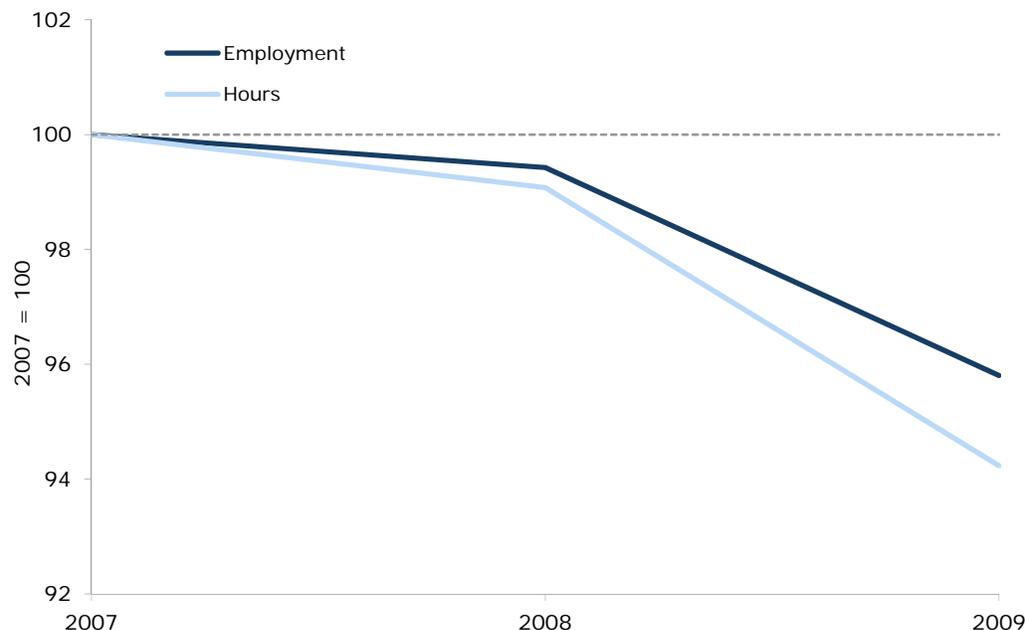
The recent experiences of Denmark and Germany provide important insight into the interplay between labor-market institutions and business cycles. Danish institutions – built around numerically flexible employment levels and strong income security for workers – appear to perform well when the economy is at or near full employment. In good times, the country’s expensive active labor market policies work to connect unemployed workers to available jobs. In a severe downturn in which the overwhelming cause of unemployment is a lack of aggregate demand, however, institutions that encourage adjustment through employment are a liability and policies that seek to “activate” workers are not particularly effective. Meanwhile, German institutions, which act to keep workers connected to their current employers, may have drawbacks when the economy is operating near full employment because they may discourage the efficient reallocation of workers from firms and industries where demand is falling to firms and industries where demand is on the rise. These same institutions, however, appear to have been well-suited for coping with the Great Recession because they encouraged firms to cut hours rather than workers, sharing the burden of the downturn more widely and helping firms keep their workforce in place and ready for the subsequent upturn.

In the United States, the hours and employment response to the Great Recession looked more like it did in Denmark than Germany. The recession hit US labor markets slowly at first, but between 2008 and 2009, employment and hours both fell sharply (see **Figure 11**). By 2009, employment was about four percent lower than it had been in 2007 and total hours were down almost six percent. The larger drop in hours than in employment implies that some of the labor-market adjustment in the United States fell on the average number of hours worked. Employment losses, however, still accounted for the large majority of the adjustment. A simple decomposition suggests that the mix of declines in employment and in average hours works was similar in the United States and Denmark. In both countries, about 30 percent of the decline in total hours was the result of a decline in average hours per employee and about 70 percent was the result of lower levels of employment.<sup>23</sup>

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23 Between 2007 and 2009, total hours fell 5.8 percent and total employment fell 4.2 percent. The 4.2 percent decline in employment represents about 72 percent of the 5.8 percent decline in total hours, with about 28 percent accounted for by a decline in the average hours worked by the remaining workers. In Denmark, total hours fell 1.9 percent and total employment, 1.3 percent, implying that employment declines accounted for about 68 percent and average-hours declines about 32 percent of the decline in total hours.

**FIGURE 11**  
**Change in Hours and Employment, US, 2007-09**



Source: Analysis of OECD data.

The hours decline in the United States largely reflected a rise in part-time work for economic reasons, reductions in overtime, and reductions in the average hours of full-time employees. Overall, US labor-market institutions did little to encourage firms to reduce average hours rather than employment levels. On the one hand, firing costs are low: the United States has the lowest level of employment protection (see Figure 6) and the lowest level of collective-bargaining coverage (see Figure 5) in the OECD. On the other hand, the structure of employer-provided benefits, particularly health insurance, make hours cuts a less cost-effective tool for lowering total compensation. While 17 U.S. states operated short-time unemployment compensation programs during the Great Recession, take-up rates were too low to have a measureable impact on national average hours worked figures. At their peak, participation rates in STW programs, for example, never exceed a few tenths of a percent of the total US workforce (see Figure 10).<sup>24</sup>

Are there any direct lessons that the United States can learn from the experience of Denmark and Germany? The political debate around “structural unemployment” – the idea that unemployment has remained high because workers lack the skills in demand in the post-recession economy<sup>25</sup> – has rekindled an interest in education and training as a means to rescue the labor market in the short term. Yet, on a per-unemployed-worker basis, Denmark spends more than twelve times what the United States does to train and “activate” unemployed workers – with only moderately better

24 See Hijzen and Venn (2010), Figure 4. For a discussion of the limitations of existing US short-time compensation programs, see Vroman and Brusentsev (2009) and Hijzen and Venn (2010).

25 For evidence against a large, permanent rise in the “natural” unemployment rate, see: Daly, Hobijn, and Valetta (2011), Mishel, Shierholz, and Edwards (2010), Mishel (2011), Schmitt and Warner (2011), and Weidner and Williams (2011).

outcomes since the beginning of the downturn. In general, supply-side ALMP strategies seem poorly suited to recessions caused by deficient demand. At least with respect to performance in an aggregate demand slump, the Danish system appears to emulate a lot of the least desirable features of the US system, including low firing costs that encourage firms to adjust to downturns by cutting workers rather than hours.

The German response to the downturn, by contrast, suggests that labor-market institutions that encourage hours reductions, rather than layoffs, can spread the pain of adjustment more equitably, as well as act to preserve good matches between workers and firms. German institutions raise the cost of firing workers – through employment protection legislation and collective-bargaining agreements – and encourage reductions in average hours – through short-time work arrangements, withdrawals from collectively bargained working-time accounts, and collectively bargained reductions in the usual work week and overtime.

Translating these lessons to the US context, however, is a challenge. Firing costs are low in the United States and the two main avenues for raising firing costs – employment protection legislation or a rapid expansion in collective bargaining – appear unlikely in the foreseeable future. Individual US states could expand the use of short-time work programs within their unemployment insurance systems, but the scale of expansion required would be substantial and would require addressing a host of concrete barriers that keep take-up rates low.<sup>26</sup>

A federal program to subsidize temporary reductions in work hours – by giving tax credits to employers who implement or expand paid sick days, paid family leave, paid vacations, four-day workweeks, or other practices that reduce hours – instead of, or in addition to, expanding state-level unemployment insurance programs might also help.<sup>27</sup> One advantage of a temporary federal tax break for these practices is that such a system directly targets the high cost of cutting hours relative to cutting workers, which has limited the take-up rate for short-time work programs in the United States. Even in Germany, which has high firing costs and a long-standing short-time work system, short-time work accounted for only about one-fourth of the decline in average hours.

In labor markets, at least, the Great Recession continues. Given the political discussion around debt and deficits, any further macroeconomic policy response to the ongoing problems in the labor market seems unlikely. That leaves the United States little choice but to learn what it can from the labor-market experiences of other countries that are also facing the worst downturn since the Great Depression. Unfortunately, US labor-market institutions have fared far worse than the OECD average since 2007, turning any given decline in GDP into far more unemployment than almost every major economy in the OECD. To the extent that US policy makers have decided on any course of action, it appears to be, in President Obama's words, to "win the future" by investing in education and training. The experience of Denmark, which won the future in the 1990s and 2000s, however, gives cause for caution. Education, training, and other measures to connect workers to jobs only work when there are jobs to be had. For the immediate future, the experience of Germany looks to offer a better way forward. German labor-market institutions gave employers incentives to spread the pain across the full workforce, with the remarkable result that the unemployment rate there actually fell over the course of the Great Recession.

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26 Vroman and Brusentsev (2009).

27 Baker (2009b, 2009c) offers a proposal along these lines.

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