Using multivariate regression methods, an emerging body of research has been interpreted to lend strong support to the orthodox view that rigidities imposed by social protection policies and institutions explain the pattern of unemployment across developed countries. In previous papers we challenged the robustness of these findings (Baker et al, 2004; 2005). Some recent studies have concluded that simple correlations using various aggregate indicators of labor market ‘reforms’ provide additional compelling support for the rigidity view. In this paper we take a close look at this correlation evidence and find it unconvincing as well. The evidence to date fails to offer evidence of costs in the form of poor employment performance sufficiently large and robust to justify the dismantling of complex country-specific sets of social institutions that provide economic and social benefits to citizens.

High unemployment continues to plague many developed countries and it is widely accepted that the root of the problem is labor market rigidity. The principal culprits, in this view, are protective labor market institutions, the most harmful of which are unemployment benefits, employment protection laws, and trade unions. There are two main variations on the rigidity story: that high levels of social protection have limited the ability of economies to adjust to shocks (e.g., Blanchard and Wolfers, 2000), and that changes in protective labor market institutions explain employment performance over time and across countries, since these changes either promote or inhibit necessary wage and employment adjustments (e.g., IMF, 2003; Nickell et al., 2005). Rigidity explanations for unemployment have long been a central tenet of mainstream economics, but there is also a long, if less influential, dissenting position, most famously illustrated by Keynes’ attack on what he called “the orthodox reasoning” during the Great Depression.
The last decade has been distinguished by a growing number and influence of statistical studies designed to identify the effects of labor market institutions for the cross-country pattern of unemployment. Most conclude that the data confirms the orthodox rigidity view. We have addressed the robustness of these results in several papers. In Baker et. al (2005), our survey of the most influential cross-country studies to date found that they turn out to be far from unanimous in their estimates of the economic and statistical significance, and in some cases even the direction, of the effects of standard institutional variables on unemployment. Indeed, a number of the prominent papers explicitly refer to this lack of robustness of their own results across specifications and variable definitions. In our own tests using five-year periods and modeled after those published by Nickell (1997), we found that the strong cross-sectional relation between unemployment and institutions found by Nickell (1997) for the mid-1980s to the mid-1990s disappeared entirely with the substitution of updated and extended OECD measures of the same labor market institutions.

In another study (Baker et al., 2004), we explored the robustness of the conclusions drawn by a recent study by the IMF. Following Nickell et al. (2003), this IMF report relies on annual data, which we argue is problematic on several counts – most importantly the dubious quality of the institutional variables, which are difficult enough to measure over five-year periods (the best sources are often periodic estimates by the OECD, which must then be annualized by interpolation). After replicating the IMF results, we found them highly sensitive to minor changes in specification – changes that are quite consistent with standard econometric approaches in this literature. Indeed, important differences appear in the IMF’s estimates of effects even across their own published regressions. In sum, despite extensions and improvements in data and specification, the cross-country regression evidence remains extremely fragile and surely should not be used as a guide to dismantle particular labor market institutions in particular countries.

In recent years, proponents of the rigidity view have also appealed to simple correlations over the 1990s between summary indicators of labor market reforms and changes in unemployment rates. A motivation for these simple two-variable correlations has been to avoid the complexities and difficulties of trying to get robust results with
econometric tests of many measures of institutions and only a small number of countries (the 20 or so “major” OECD countries).

In this paper, after presenting some simple correlations of our own (institution-unemployment scatter plots), we consider two prominent examples of this use of simple bivariate evidence to support the orthodox case for labor market deregulation. The first is the OECD’s claim that there is a strong association between a composite measure of labor market reforms and structural unemployment (otherwise known as the non-accelerating inflation rate of unemployment, or NAIRU) across OECD countries. The OECD reforms-unemployment scatter plot first appears in their “Implementing the Jobs Study” report (1999b) and then, in a different formulation, in the recent reappraisal reported in Brandt et al (2005). We argue that that a more appropriate measure of reforms – one that better reflects the core labor market deregulation agenda - produces no statistical relationship.

Our second example consists of a close look at Nickell’s (2003) “ticks and crosses” analysis, which scored OECD countries on the extent to which they had changed various labor market institutions in an employment friendly direction between the early 1980s and the late 1990s. While an admittedly casual exercise, there is good reason to take it seriously both for its prominent author and its very strong conclusions. Indeed, Nickell’s “ticks and crosses” analysis is the main empirical evidence used to support the conclusion in a recent issue of the American Economics Association's *Journal of Economic Perspectives* that the pattern of unemployment across Europe is explained by the pattern of labor market rigidities: “Nickell (2003) summarizes these diverging experiences by correlating the change in unemployment across countries in the 1990s with labor market reforms and finds the expected sign. Therefore, evidence supports the traditional view that rigidities that reduce competition in labor markets are typically responsible for high unemployment. Reducing these rigidities across the board seems to work” (St. Paul, 2004: 53).

These two case studies illustrate our view that the strong orthodox conclusions found in the mainstream literature on European unemployment reflect more the theoretical predispositions of the authors than compelling empirical evidence. This is of some importance for at least two reasons. First, this interpretation of the evidence by prominent economists and international institutions provides cover and support for what,
in our view, are unwarranted ideological attacks on the welfare state, labor unions, and other protective labor market institutions. And second, the apparent strength of these empirical results, by contributing to the overwhelming dominance of the orthodox rigidity view, can have a chilling effect on innovative empirical work designed to confront, rather than just confirm, the conventional wisdom.

1. Labor Market Institutions and Unemployment: Simple Correlations

It is frequently argued that employment performance will improve with the reform of each “employment-unfriendly” labor market institution. Indeed, this premise lies behind both the OECD’s (1999b) reforms/unemployment scatter plot and Nickell’s (2003) ticks/crosses analysis, both of which are considered in detail below. In Baker et al. (2005), we produced six scatter plots of labor market institutions against unemployment for 20 countries and 4 periods (1980-84, 1985-99, 1990-94, 1995-99). We found little, if any, correlation between these standard institutional measures and unemployment. We reproduce three here.

Figure 1 shows the plot of country-time points for the strictness of employment protection laws and unemployment. These data show no correlation, a finding consistent with the conclusion of the OECD’s study of the effects of employment protection laws (1999a): “The basic finding appears robust: overall unemployment is not significantly related to EPL strictness.” This finding was reaffirmed in the OECD’s recent comprehensive follow-up analysis of the effects of employment protection laws (OECD 2004).

Despite both the widely accepted view that unemployment benefit generosity lies at the heart of the unemployment problem, there is in fact no simple association between the standard measures of unemployment benefit generosity and unemployment over the 1980-99 period. Figure 2 shows a slight positive (but statistically insignificant) relationship between the unemployment rate and the replacement rate (the share of an unemployed worker's income that is typically replaced by unemployment insurance benefits). One country, Spain, accounts for the slight upward slope. Directly below the four Spanish points are those for Sweden; while both countries had similar replacement rates (ranging from 65-76%), the five-year average unemployment rates in Spain ranged from 16-20 percent while Swedish unemployment rates ranged from 2-8 percent. To take
another example, while French replacement rates were about 58 percent from 1980-99 and Dutch rates were much higher (70 percent), French unemployment rose from 8 to 12 percent while Dutch unemployment fell from 8 to 5 percent.

There is, similarly, no simple association between unemployment benefit duration and unemployment levels across these 20 countries and four time periods (not shown). If unemployment benefit generosity has strongly negative employment effects, it must be a more complicated story, one that takes into account controls for (and interactions with) a variety of other institutions, macroeconomic conditions, and even demographic and structural (industrial mix) effects. Even in these more sophisticated tests, it is difficult to sort out causality (increasing generosity would reasonably be expected to be legislated in response to rising unemployment). Our review of that literature showed a wide range of estimates on the effects of duration and the replacement ratio. The lesson from this cross section evidence is that the quantitative impact of unemployment benefit cuts on unemployment is quite unclear.

But it should also be noted that a finding that reduced benefit generosity is associated with lower unemployment may not reflect a more employment-friendly labor market. Faced with less generous benefits, workers may respond with less job search, more “black market” work, or they may drop out of the labor market entirely. There is empirical support for this discouragement effect: studies by Nickell and his co-authors found that significant effects of replacement ratios on unemployment rates were not repeated when employment rates were used instead. In short, paring back the welfare state may lead to lower unemployment rates via greater detachment from the formal labor market, not higher employment rates.

Collective bargaining is also commonly blamed for the labor market rigidities presumed to be at the root of high European unemployment. The union member share of the workforce (known as “union density”) is a commonly used indicator of this labor market institution. Figure 3 shows a plot of union density against unemployment, which again shows no statistically meaningful association. This is consistent with a recent OECD survey of the literature on the effects of collective bargaining (1999b, Box 2.3, p. 55), which concludes that, “Notably there is little evidence of an effect of union density … on unemployment once other features of the collective bargaining system are taken in to account.” Replacing the union density measure with collective bargaining coverage
(the share of employees covered by union bargaining) also produces no statistical association.

In sum, despite the ubiquitous reference by economists, policy makers and media pundits to the employment-unfriendly effects of employment protection laws, unemployment benefits, and labor unions, the fact is that the best (OECD produced) measures of these institutions show little or no association with the cross-country pattern of unemployment.

2. The OECD’s Policy Reforms Evidence

A central pillar of OECD labor market policy has been that reforms that reduce labor market rigidities are the answer to persistent high unemployment. An enumeration of such reforms was carried out by the OECD as part of its follow-up to The OECD Jobs Study (OECD 1994). Their 1999 survey (OECD 1999b) provides an extremely comprehensive listing of changes in the generosity of unemployment benefits, the strictness of employment protection laws, the level of minimum wages and the like, focused on the period from 1995 but also with summary data from the early 1990s. The OECD listed all the reforms suggested for each country in its labor market reviews, developed a weighting system for assessing their significance, and then analyzed whether the recommended reform had been fully implemented, partially implemented, ignored, or even flouted (in the sense that policy had moved in the “wrong” direction).

The OECD found a significant positive relation between their measure of “follow-through” by countries in response to OECD recommendations and the extent to which the unemployment (the NAIRU) fell in the 1990s (OECD 1999b: figure 2.7). But such a measure ignores the very different number of recommendations for labor market reforms that countries received from the OECD (varying from 4 in the case of USA and Australia to 21 for Finland and 23 for Germany). The effect of reforms on unemployment should presumably depend on how many were implemented, not simply the proportion of OECD suggestions that were followed.

Accordingly, we constructed an alternative index showing the “volume” of labor market deregulation recommendations that were actually carried out, which depends on both the number of measures advocated by the OECD and their “follow-through” by the countries (for details, see Baker et al., 2005). We focused our index on reforms connected
with the unemployment benefits, employment protection, and wage bargaining systems, as these constitute the key labor market institutions typically regarded as employment-unfriendly.

Figure 4 compares this index of labor market deregulation in the 1990s with the OECD’s estimate of the change in structural unemployment over the same period for 21 OECD member countries. The figure shows no significant relationship between this measure of deregulation and the change in unemployment across OECD countries. Ireland is an extreme case, with the most dramatic fall in unemployment accompanied by rather little labor market reform. However, even if Ireland is excluded (and this would be hard to justify), the relationship between deregulation efforts and structural unemployment across countries still appears very weak (only about one tenth of the variance in the change in unemployment is “explained”). By this measure of labor market reforms, changes in structural unemployment across the major OECD member countries in the 1990s are not systematically associated with the extent of labor market reform.

The OECD is currently undertaking a major reassessment of its Jobs Strategy and has published a comprehensive survey of all the labor market reforms in the period starting in 1994, the year of its Jobs Study (Brandt, Burniaux and Duval 2005). This new study also presented a preliminary analysis of the relationship between the extent of these reforms and changes in structural unemployment. They found a significant correlation between an index of the amount of labor market reform over the period 1994 to 1999 and changes in unemployment after 1998.

This latest confirmation of the payoff to reforms by the OECD depends on assuming a rather long lag and is driven by two of the “reforms” – increased spending on Active Labor Market Policies (ALMP) and reductions in the aggregate “tax wedge” between gross labor cost and the wage received by workers. The OECD’s Jobs Strategy calls for greater public investment in ALMP (such as retraining and matching of workers with vacancies). It is viewed as a way to promote flexibility and efficiency in the labor market and is not part of the orthodox deregulation agenda. Similarly, the overall tax burden in the economy, while it may have labor market effects, reflects a myriad of influences and is certainly not adjusted primarily with labor market effects in mind. Accordingly, we developed an indicator of labor market reforms focused on the core
deregulation agenda of employment protection, unemployment benefits and wage setting. Repeating the OECD’s exercise with this more targeted indicator shows no significant relationship with subsequent unemployment declines, confirming the patterns shown in figure 4. In sum, appropriately defined measures of labor market reforms do not provide strong evidence that labor market deregulation has yielded significant payoffs in the form of reduced unemployment.

3. Nickell's Reforms Scorecard

Stephen Nickell has helped pioneer the panel data analysis of labor market institutions and employment performance across developed countries in a literature that has become increasingly sophisticated, both in terms of statistical methodology and the quality of the institutional measures. In his recent “Labour Market Institutions and Unemployment in OECD Countries,” he turns back to a much simpler, but potentially more compelling analysis (because of its simplicity) that develops a labor market reforms scorecard and relates it to the change in unemployment between the early 1980s and the late 1990s.

Nickell makes two empirical claims. The first is that the problem of European unemployment today is concentrated in “the big four”: France, Germany, Italy and Spain. This is an important point since a good explanation of the “European” unemployment problem must explain the persistence of high unemployment in these four big European countries. As he pointed out some time ago (Nickell 1997), many European workers live in regions with unemployment rates lower than that of the United States. Most of those that do not are located in one of these four countries.

But nearly all of the analysis in this recent paper is dedicated to the much bolder second claim, which is that changes in unemployment can be well-explained by changes in (mostly “bad”) labor market institutions. Nickell assesses the impact of deregulation, or “labor market reforms,” by assigning “ticks” to “good” changes (employment friendly reforms) and “crosses” to “bad” ones. This is done for 9 measures and 20 countries for some point in the 1980s to some other in the 1990s depending on the data availability. Nickell argues that his scorecard of labor market policy reforms accounts for just over half (51%) the variation in unemployment trends across these OECD countries since the early 1980s. Remarkably, this is nearly identical to what his most recent and most
sophisticated regression analyses have produced (Nickell et al., 2002; 2005). As noted above, this reforms scorecard evidence has already been judged extremely compelling (St. Paul, 2004).

How reliable is this evidence? We leave aside the difficulty of determining which institutions to include (e.g., taxes and ALMP as mentioned above), what threshold should determine a cross or a tick for each of the 9 measures, and the poor quality of some of the measures (e.g., there is in fact no good cross-country measure of the strictness of eligibility rules for unemployment insurance, much less how this measure may have changed over time). Still, Nickell's analysis is unconvincing on two grounds: the fragility of the simple regression results and, critically, the failure of this second empirical claim (the key role of reforms) to support his first one, since the ticks and crosses fail to identify three of the four big high-unemployment countries (Spain, Germany and Italy).

Nickell's finding that just over half of the variation in unemployment is explained by his ticks and crosses is quite fragile. Even given the distribution of ticks and crosses, the alternative base and end years and mix of countries we tried produced weaker results. For example, the second row of Table 1 shows that the explanatory power of the equation collapses without the Netherlands, the UK, and Ireland. That is, for 17 of the 20 countries, neither ticks nor crosses are significantly related to the change in unemployment. And row 3 shows a somewhat weaker result if the base period is changed from the 1980-87 average to 1980-81, arguably a more appropriate date to measure “the early 1980s.”

It is of some interest that the ticks and crosses explanation for the pattern of unemployment across 20 countries is driven by these three “success” stories (Ireland, the U.K., and the Netherlands). A general consensus exists in the case study literature that the key to the employment successes of the Netherlands and Ireland were nationwide wage agreements between unions and employers, which produced labor peace and wage moderation – perhaps more an example of labor market regulation than deregulation. And the substantial improvement in UK unemployment (despite all the ticks given for the collapse of the labor unions in the reforms scorecard) is attributable mainly to declining labor market participation - the ratio of employment to population of working age is actually 3% points lower now than it was in 1990 (Schmitt and Wadsworth, 2005). Moreover, it turns out that nearly all the increase in U.K. employment since 2000 has
occurred either within the public sector or in jobs contracted out from the public sector. These are presumably not the kinds of dynamics advocates of labor market deregulation have had in mind.

We also explored the effects of Nickell’s reforms scorecard on the employment rate. After all, the logic of the labor market reform prescription is that improved unemployment performance reflects improved employment performance - greater flexibility and lower levels of benefits will spur employer demand and provide greater incentives for workers to work, enhancing the demand for and supply of jobs. This should produce and increase in the employment rate. Results showing that deregulation reduces unemployment without increasing employment suggest that these “reforms” may really just encourage workers to leave the labor force rather than search for work.

So if policy reforms are actually improving labor market performance the balance of ticks and crosses should do a good job of explaining changes in the employment rate. Row 4 shows that this expectation is only weakly supported for the full two decade period (ticks are significant, crosses are not, with an $R^2$ of .25). Replacing 1980-81 as the base period with 1982-84 produced nearly identical results. But these employment change results are actually even weaker than this suggests, since they reflect the influence of a single outlier country. Row 5 shows that there is no meaningful relationship without the Netherlands: for 19 of these 20 countries, the policy reforms scorecard fails to explain changes in the employment rate. Nickell’s ticks and crosses evidently do a poor job of accounting for the two decade change in employment rates.

But perhaps most importantly, the policy reforms scorecard fails to identify the large high unemployment countries. The objective of the scorecard exercise is, according to Nickell, to “see how these institutional variables have changed over time and what these changes can tell us about why the European Big four countries have performed less well than most other countries on the unemployment front in the 1990s.” His conclusion is unambiguous: “We may reasonably conclude that the countries which had very high unemployment in the early 1980s and still have high unemployment today simply have too few ticks and/or too many crosses.” If that is so, the big four countries with high persistent unemployment should be located at the negative end of the spectrum (with many more crosses than ticks).
Figure 5 reports Nickell’s net total of ticks/crosses. It turns out that, among the big four high unemployment countries, only France fits the prediction, and there is some question about the appropriateness of its score. Based on the scorecard, both Austria and Switzerland should have shown about the same dismal performance as France. The three other high unemployment countries (Germany, Spain and Italy) get the same scores in the middle of the distribution (0 to 1) as Norway, the U.S. and Belgium. It seems reasonable to question the usefulness of an indicator designed to explain the poor performance of the “big four” that puts three of the four persistent high unemployment countries in the middle of the distribution (with the U.S. and Norway) while locating two of the most impressive performers (Switzerland and Austria) at the bottom. This figure shows that, despite the impressive sounding explanatory power of his unemployment equation (51%), for at least three of Nickell’s four persistent high unemployment countries, it is not reasonable to conclude that the problem was simply too few ticks and too many crosses.

4. Conclusion

Over the last decade, a large panel-data-based literature has emerged that is often interpreted to provide strong empirical support for the orthodox position that the rigidity effects of labor market institutions explain the pattern of unemployment across developed countries. In previous papers, we have challenged the robustness of these findings (Baker et al, 2004; 2005). Some recent studies have made this same orthodox claim on the basis of simple correlations between various aggregate indicators of the implementation of labor market reforms and unemployment. In this paper we have taken a close look at this evidence and find it unconvincing. Thus far, proponents of labor market deregulation have not produced robust evidence of systematic positive effects of their proposed reforms on cross-country employment performance, though this has evidently not dimmed the confidence with which such reforms are promoted.

This failure of the evidence to offer compelling support for the orthodox view is not just a matter of academic concern. Advocates of deregulation seek to dismantle a complex set of social institutions that provide substantial economic and social benefits to citizens. These include greater job security (through employment protection laws), insurance against unemployment (which offers greater opportunities for good matches between workers and jobs), and an important degree of democratic representation at work.
Deregulationists often argue that demonstrating any negative effect of labor market institutions on the unemployment rate is sufficient reason to pare back or eliminate those institutions. In fact, since these institutions typically provide substantial economic and social benefits, the burden of proof standard should be set much higher.
References


Table 1: Effects of Nickell’s “Good” and “Bad” Labor Market Policy Changes Using Alternative Measures of Employment Performance, Time Periods, and Countries  
(t statistics in parentheses; t > 2.0 are highlighted)

<table>
<thead>
<tr>
<th></th>
<th>Ticks</th>
<th>Crosses</th>
<th>R2</th>
<th>N</th>
</tr>
</thead>
</table>
(Nickell’s regression) | -1.25  
(3.1) | 1.21  
(2.2) | .51 | 20 |
(w/o NL, IRE, UK) | -.74  
(1.4) | .9  
(1.62) | .24 | 17 |
(2.9) | .73  
(1.6) | .44 | 20 |
(2.1) | -.86  
(.76) | .25 | 20 |
(w/o NL) | 1.06  
(1.4) | -.02  
(.0) | .10 | 19 |

Data: Unemployment change from 1980-87 to 2000-01 and the numbers of “ticks” and “crosses” are taken from Nickell (2003). The other unemployment and the employment rates are from the OECD.
Figure 1: Employment Protection Laws and Unemployment, 1980-99
(20 countries, 4 five-year periods)

\[ t = -0.04 \]
\[ R^2 = 0.005 \]
Figure 2: The Unemployment Benefit Replacement Rate and Unemployment, 1980-99
(20 countries, 4 five-year periods)

$t = .46$

$R^2 = 0.035$

Unemployment Rate

UIB Replacement Rate
Figure 3: Union Density and Unemployment
(20 countries, 4 five-year periods)
Figure 4: Labor Market Deregulation and Changes in the NAIRU for 21 OECD Countries in the 1990s

\[ y = -4.1902x - 0.7819 \]

\[ R^2 = 0.0107 \]
Figure 5: Nickell's Policy Reform Scorecard: Net “Good” and “Bad” Labor Market Policy Changes, Early 1980s to Late 1990s
Andrew Glyn is Fellow and Tutor in Economics, Corpus Christi College, and University Lecturer in Economics, Oxford University. David R. Howell is Professor, Milano School of Management and Urban Policy, The New School, and Faculty Research Fellow, Schwartz Center for Economic Policy Analysis. John Schmitt is an economist at the Center for Economic and Policy Research (CEPR), Washington D.C. Correspondence should be sent to David R. Howell (howell@newschool.edu)

For example, Gilles St. Paul (2004: 51) writes that in the later 1980s and 1990s “a rough consensus emerged that high unemployment in Europe was due to labor market rigidities.”

It could easily be argued that Nickell’s allocation of ticks and crosses for France is among the most problematic. For example, based on Nickell’s table 5, France gets a cross based on a modest increase in the 1980s, while the 1990s actually show a slight decline. Again, on union coverage, France gets a cross on the basis of changes that took place in the 1980s, not the 1990s, and gets no credit (a tick) for reducing union density from 16% to 10%, a level below that of the U.S.! It gets another for increasing strictness of employment protection, which was entirely due to changes in the regulations that apply to temporary workers, just 15% of the workforce. It might be noted that Nickell’s criterion for a cross on EPL is a rise of more than .1; France’s score changes from 1.3 to 1.4 (exactly .1), but is given a cross. Both the rules of the game and the allocation seem not in France’s favor!