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## Causes of Unemployment: A Cross-Country Analysis

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# Causes of Unemployment: A Cross-Country Analysis

## Summary

In 1999, the U.S. unemployment rate averaged 4.2%. In France and Italy, the unemployment rate was nearly three times as high, while in Spain it was nearly four times as high. This paper surveys 18 of the advanced industrialized countries to determine if mainstream economic theory can account for these vast disparities in unemployment outcomes. Understanding these disparities may help inform public policy choices regarding U.S. unemployment.

Economists often attribute high secular unemployment rates to what they term labor markets distortions. First, there may be legal and regulatory barriers to hiring and firing that economists believe impede job creation. Second, high rates of unionization may make wages less responsive to changes in productivity. As a result, employment at the margin may become unprofitable for employers. Third, generous safety-net benefits may reduce the incentives to accept employment. These benefits take the form of unemployment insurance as well as benefits for other services, such as housing, that are means-tested and are likely to be reduced if employment is accepted. Of the countries reviewed, the policies of the United States were the least restrictive in all three policy areas. Its unemployment rate was among the lowest of the sample. By contrast, high unemployment countries tended to be restrictive in all three areas.

Do these factors explain the difference in unemployment rates between the United States and continental Western Europe as a whole? When one looks at Western Europe more closely, this approach does a poorer job of explaining why some countries such as Austria and Portugal have enjoyed low unemployment despite the fact that their labor markets feature the same types of distortions as the high unemployment countries. The mainstream argument also fails to explain why countries with fairly unrestricted labor markets, such as the United Kingdom, New Zealand, and Canada, have experienced higher unemployment than the low unemployment countries of Western Europe.

These inconsistencies have led some economists to question whether the lower job creation effect of labor market rigidities would be offset by a lower rate of job destruction. Other economists have argued that prolonged recessions are responsible for the persistence of high unemployment after the recession has ended, contrary to the mainstream belief that the business cycle has no lasting effect on unemployment.

Some economists believe the effects of labor market distortions have negative consequences beyond a higher unemployment rate. It has been suggested that distortions have resulted in lower labor market participation, higher early retirement, higher long-term unemployment, and higher unemployment rates among women and youths. They argue that labor market distortions may also lead to lower productivity growth rates, all else equal. This paper will be updated as events warrant.

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# Causes of Unemployment: A Cross-Country Analysis

Across the advanced industrialized countries, there has been a remarkable disparity in experiences with unemployment. While the United States has seen unemployment fall to its lowest levels in 30 years, some Western European countries have suffered unemployment rates not seen in the United States since the recession of 1981-1982. Surprisingly, these levels of unemployment exist at a time when the European Union (EU) has enjoyed several years of uninterrupted economic growth. Can economic theory explain this disparity? And if it can, what are the implications for congressional policy choices?

To make a meaningful international comparison of unemployment rates, first the role that the business cycle plays in determining unemployment must be removed. Economists refer to this type of unemployment as cyclical unemployment. For example, the Congressional Budget Office (CBO) estimates that during this business cycle, cyclical unemployment in the U.S. has fallen 2.7 percentage points from 1992 to 1999. Cyclical unemployment occurs because wages do not fully adjust in recessions, and falls to zero when the economy has recovered.<sup>1</sup>

Once differences in cyclical unemployment have been removed, what accounts for the rest of the unemployed? This remaining unemployment is often referred to as the “Non-Accelerating Inflation Rate of Unemployment” or NAIRU.<sup>2</sup> The NAIRU, as it was originally posited by Milton Friedman, is determined by microeconomic factors and institutions in the labor market:

“To avoid misunderstanding, let me emphasize that by using the term “natural” rate of unemployment, I do not mean to suggest that it is immutable or unchangeable. On the contrary, many of the market characteristics that determine its level are man-made and policy-made.”<sup>3</sup>

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<sup>1</sup> In theory, if markets were perfectly competitive and efficient, unemployment would not exist because wages would always be set at the value of a worker’s productivity. Usually recessions are caused by a decrease in aggregate demand, which lowers the value of a worker’s productivity. When the value of productivity falls in recessions, wages would fall to compensate, making layoffs unnecessary. But if wages are not cut (either enough or at all) when the value of a worker’s productivity falls, then the market cannot clear and unemployment results.

<sup>2</sup> For more information, see U.S. Library of Congress, Congressional Research Service, *Inflation and Unemployment: What Is the Connection?*, by Brian Cashell, CRS report RL30391, December 17, 1999.

<sup>3</sup> Milton Friedman, “The Role of Monetary Policy,” *American Economic Review*, March 1968, p.9.

This report will explore what differences in microeconomic structures and policies among the industrialized nations might be able to explain why there are such divergent results within the sample. To do this, the report relies heavily on data compiled from several recent studies from the Organization for Economic Cooperation and Development (OECD).

## A Cross-Country Comparison

Table 1 offers the average unemployment rate for each industrialized country in the sample from 1991-1999, their average estimated NAIRU from that period,<sup>4</sup> and their unemployment rate in 1999. It breaks countries down into three categories: low, intermediate, and high unemployment countries based on their estimated NAIRUs. In most countries, the 1991-1999 average was very similar to the estimated NAIRU. But in countries like Switzerland, Sweden, and New Zealand that experienced considerable cyclical unemployment because of downturns in the 1990s, the NAIRU is much lower. At the bottom of the table, the EU averages are listed.

**Table 1: International Unemployment Rates**

	Countries	NAIRU Estimate	1991-1999 Average	1999
Low	Switzerland	2.5	3.5	3.2
	Japan	3.0	3.2	4.7
	Austria	4.0	3.9	3.7
	Norway	4.5	4.9	3.2
	United States	5.6	5.8	4.2
	Portugal	5.6	5.8	4.5
	Netherlands	5.7	5.6	3.3
Intermediate	Denmark	6.4	7.3	5.2
	Sweden	6.5	7.9	7.2
	New Zealand	6.8	8.0	6.8
	United Kingdom	7.8	8.4	6.1
	Germany*	7.8	8.8	8.7
	Canada	8.0	9.7	7.6
High	Belgium	8.4	8.9	9.0
	Australia	8.8	9.1	7.2
	Italy	10.1	10.8	11.4
	France	10.3	11.5	11.3
	Spain	19.7	20.2	15.9
	E.U.	9.2	10.0	9.2

Source: *Economic Outlook 67*, OECD, 2000.

\*Data from 1993-1999 only.

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<sup>4</sup> When comparing unemployment, the OECD adjusts each country's data to meet a standard definition. See the appendix for the estimation and sample selection methods.

In the 1950s and 1960s, nearly all of these countries had very low unemployment. Problems with high unemployment developed during the 1970s, which most economists attribute primarily to the inability of these economies to adjust to the sudden run-up in oil prices. But while the unemployment rate fell back down to lower levels in the 1980s in some countries like the United States, it remained high in countries like France, Italy, and Spain. This trend is not consistent across the EU: there are EU countries like Austria, Portugal, and the Netherlands that have low unemployment. Despite that fact, the NAIRU for the overall EU is higher than most of the countries in the sample because most of the large EU countries (France, Italy, Germany,<sup>5</sup> and Spain) suffer from relatively high unemployment rates. Aside from the U.S., the English-speaking economies, typically portrayed as market-oriented economies with low unemployment, are all in the intermediate group, except Australia which is in the high unemployment group. On the other hand, it is these English-speaking countries which seem to have made the greatest employment gains in recent years.

## **What Causes High Unemployment?**

To understand the disparities in the NAIRU estimates presented in Table 1, this section examines the makeup of the NAIRU, and then reviews the areas where many economists believe unemployment differences can best be explained by differences in policy.

### **The Makeup of the NAIRU**

The NAIRU consists of two types of unemployed, the frictionally unemployed and the structurally unemployed. The frictionally unemployed refers to those who are in the process of moving from one job to another. Typical examples would be someone who has quit a job to find one offering better pay or someone who has left a job because he or she is relocating to a different region. Frictional unemployment also includes workers who have lost their job, but can quickly find new jobs during an economic expansion because they have marketable skills. Other examples include workers between contractual or seasonal work. In essence, frictional unemployment is an investment – there is a negative cost to the worker at the present in lost wages from his old job, but over time the gains from his new job should outweigh that cost. Since frictional unemployment often represents those who are benefitting from being unemployed – or else they would not have voluntarily left their old jobs – even in a perfect world, the NAIRU would never reach zero.

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<sup>5</sup> Germany is something of a special case. Before reunification in 1990, it was a country with intermediate unemployment. But because of the difficulties of integrating ex-communist workers into the workforce, it has become a high unemployment country. The primary reason the transition has been so difficult is that East German workers, who are much less productive, successfully bargained to receive compensation similar to West German workers. For more information, see Jennifer Hunt, *Why Do People Still Live in East Germany?*, NBER Working Paper 7564, February 2000.

Structural unemployment refers to those workers who are involuntarily, long-term unemployed because they lack the skills needed for the jobs available.<sup>6</sup> In an ideal world, structural unemployment would not exist. In the United States, there is relatively little structural unemployment, whereas in the high unemployment countries, given the persistence of unemployment duration, structural unemployment appears to be the bulk of the problem.<sup>7</sup> This problem occurs when there are regional and sectoral shifts in employment opportunities that create a mismatch between profitable employment opportunities and unemployed workers. One reason this occurs is because the skills of the unemployed do not match the skills needed for the jobs available. Another reason is because some workers are living in depressed regions and are unwilling to move to booming regions where jobs are available.

Economic theory posits that in perfectly competitive market economies, only frictional unemployment would exist at times of economic prosperity. In this ideal, firms set wages equal to the value of workers' productivity, and as a result markets clear at a point where all workers are employed (or, in the case of frictional unemployment, becoming employed.) Workers move to new employment when the value of their productivity at another firm is higher, and employers eliminate employment when the value to the firm of workers' productivity declines below a wage that workers are willing to accept. Because profitable opportunities in the economy are always changing, the value to a firm of workers' productivity is always changing. Economists generally believe that a freely functioning market system is the best way for mutually beneficial employment opportunities to be matched.<sup>8</sup> For this process to falter and unemployment to occur, some mechanism must be introduced that distorts the fluid functioning of this ideal market.

Most economists attribute the high structural unemployment in some of Western Europe to the fact that there have been greater distortions introduced in the European labor market than in the United States. By contrast, most economists believe that if countries adopt market-friendly employment policies like the United States, structural unemployment will be a much smaller, more manageable problem.

Policies that economists consider to be distortionary can be divided roughly into three categories: policies and laws that make the labor market more rigid, labor market institutions that interfere with the fluid functioning market, and policies that

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<sup>6</sup> Perhaps unsurprisingly, the distinction between the three categories is not as neat as it appears to be. For example, consider a worker who cannot get another job in his field. He is involuntarily unemployed because he would like an existing job in his field that others are occupying, making him structurally unemployed. But he may be voluntarily unemployed in the sense that he would rather wait for a job to open in his field than take an inferior job in a different field, making him frictionally unemployed. If he lost his job in a recession, he may have originally been cyclically unemployed.

<sup>7</sup> Only 8.3% of US unemployed workers were unemployed for over one year from 1996-1999. By contrast, more than 49% of workers were unemployed for over one year in the EU during that period. See Table 5.

<sup>8</sup> In this hypothetical construct, this process will not happen instantly. The time it takes for workers to move to more profitable opportunities results in frictional unemployment. However, this ideal process does preclude the existence of structural unemployment.

create disincentives to seek employment. It may well be that no single policy is responsible for high European unemployment, but taken together, some argue that these policies make European labor markets markedly less efficient than the United States.

### **“Legal Rigidities”**

From this perspective, a policy that makes the labor market more “rigid” is any policy that creates legal or regulatory obstacles in the labor market’s allocation of resources. More often than not, the policies are ostensibly designed to create impediments to firing or layoffs, but other examples have been suggested such as a mandatory increase in severance pay or high minimum wages. Economic theory suggests that the result of these impediments is that the efficient matching of employment opportunities is hindered, and unemployment results.<sup>9</sup> It assumes that while fewer workers will lose jobs, this will be more than offset by the fact that fewer jobs will be created as employers try to avoid generating new employment except when absolutely necessary. In this view, since employers can only estimate the productivity of potential workers, if employers are hindered from firing workers, they will hire fewer workers than they otherwise would out of fear of being stuck with unproductive workers. It may also hinder the reallocation of efficient labor when the demand and costs for different industries change, causing higher, lengthier unemployment during the period of reallocation.

The OECD ranks the strictness of employment protection legislation in three broad categories – those that limit dismissal (in regular employment situations), temporary employment, and layoffs. Its rankings are presented in Table 2. Countries may limit dismissal by legislating “procedural inconveniences which the employer faces when trying to dismiss employees; notice and severance pay provisions; and prevailing standards of and penalties for unfair dismissal.”<sup>10</sup> Countries may limit temporary employment by limiting the use of fixed-term contracts and temporary employment firms. Some countries mandate delays and procedures for mass layoffs in addition to the restrictions placed on dismissal in regular employment situations.

Among the major economies, the evidence looks promising. By the OECD’s rankings, the United States is unparalleled in the flexibility of its labor markets (except in the area of mass layoffs), and as theory suggests, its NAIRU is very low. By contrast Italy, Spain, and France are much more restrictive, and their unemployment rates are among the highest. On the other hand, Portugal, a low unemployment country, arguably has the sample’s most strict employment protection while Australia, a high unemployment country, is less strict than all the continental European countries. Interestingly, many low and intermediate unemployment countries blend strictness in one area with laxness in others. For instance, regular firings and mass layoffs are strictly regulated in the Netherlands, but policy towards temporary employment is flexible.

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<sup>9</sup> This analysis focuses on the effects of policy on economic efficiency, and neglects effects on social, non-economic goals. This point is expanded on in the conclusion.

<sup>10</sup> *OECD Employment Outlook*, 1999, p.54.



**Table 2: Ratings of the Strictness of Employment Protection Policies**

	Regular Employment	Temporary Employment	Mass Layoffs	NAIRU Estimate
Switzerland	1.2	0.9	3.9	2.6
Japan	2.7	2.1	1.5	3
Austria	2.6	1.8	3.3	4
Norway	2.4	2.8	2.8	4.5
Portugal	4.3	3	3.6	5.6
United States	0.2	0.3	2.9	5.6
Netherlands	3.1	1.2	2.8	5.7
Denmark	1.6	0.9	3.1	6.4
Sweden	2.8	1.6	4.5	6.5
New Zealand	1.7	0.4	0.4	6.8
Germany	2.8	2.3	3.1	7.8
United Kingdom	0.8	0.3	2.9	7.8
Canada	0.9	0.3	3.4	8
Belgium	1.5	2.8	4.1	8.4
Australia	1	0.9	2.6	8.8
Italy	2.8	3.8	4.1	10.1
France	2.3	3.6	2.1	10.3
Spain	2.6	3.5	3.1	19.7

Source: *OECD Employment Outlook*, 1999.

Note: Ratings increase with the strictness of policy on a scale of 1 to 6.

## Institutional Rigidities

Some economists argue that Europe's high rates of unionization create similar rigidities in labor markets that lead to higher unemployment for the same reasons as legal rigidities. By their nature, unions, whose objectives are social as well as economic, act to set wages differently from the market outcome.<sup>11</sup> Economists claim that if firms are not allowed by unions to set wages at the value of productivity, then employment at the margin should fall,<sup>12</sup> creating unemployment. From the employer's perspective, the reduction in employment would ideally be achieved by releasing workers who are the least productive. However, union rules, for example seniority-based layoffs, sometimes coupled with government regulation of the employment process, make it likely that a reduction in employment will not be done in the most efficient way (or at all). As a result, employed union workers, who are "insiders" in

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<sup>11</sup> This assumes that firms operate in competitive markets, which is not always true, since some firms may have pricing power in the labor market. As an approximation of the overall economy, most economists consider an assumption of competitive markets to be reasonable. However, without that assumption, the conclusions are weaker.

<sup>12</sup> With fewer employees, the value of the productivity of the remaining employees in theory should rise because each worker has more capital to use. Employment becomes profitable at the bargained wage because the remaining workers are more productive.

the wage-bargaining process, are better off than in the market outcome, while the unemployed, who are “outside” of the bargaining, are worse off.<sup>13</sup> However, the unemployed cannot change the outcome in their favor by bargaining to lower wages to a level where firms would be willing to hire them because the unemployed are outside the wage-bargaining process.

As seen in Table 3, only 18% of U.S. workers were covered by collective bargaining in 1994, the lowest level among developed countries. When gauging the employer’s decision-making power, the collective bargaining rate is probably a more relevant measure than the rate of unionization. In the United States, the difference between the two is negligible. But in some countries, contracts negotiated by unions are extended to non-union workers, and so the difference can be great. For example, 95% of French workers were covered by collective bargaining, although only 9% were actually unionized.

In contrast to legal rigidities and work disincentives, collective bargaining patterns show a stronger geographic correlation. High levels of collective bargaining coverage are found throughout Western Europe, but are less prevalent in Japan and the English-speaking countries (except for Australia). Therefore, while high collective bargaining rates may explain the experiences of some high unemployment countries (four of five are in Western Europe), collective bargaining does little to explain the experiences of the low and intermediate unemployment countries.

The third column ranks countries by the extent that their wage bargaining process is centralized and coordinated. In countries like the United States, different unions coordinate their bargaining very little, even when two unions represent the same occupation. By contrast, in countries like Germany, entire industries are represented by one union, and different unions formally meet with government and representatives of business to negotiate country-wide wages. The degree of coordination/centralization tells nothing about how powerful unions are; it measures a difference in bargaining structure that may have economic consequences.<sup>14</sup>

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<sup>13</sup> This theory does not predict that unions will always demand wage increases. In fact, there are cases in which unions agreed to wage freezes or give backs. Instead, it posits that unions will bargain for a different wage than they would if the interests of outsiders were considered. For more information, see Assar Lindbeck and Dennis Snower, *The Insider-Outsider Theory of Employment and Unemployment*, 1988.

<sup>14</sup> Calmfors and Driffill theorize that the unemployment problem will be greatest in countries with high collective bargaining rates that do not have highly centralized and coordinated bargaining systems. They hypothesize that centralized unions do a better job of setting wages close to productivity levels than their decentralized counterparts, so employment at the margin remains profitable. In their view, in decentralized systems, local unions try to increase wages by raising product prices, lowering profits, and restraining employment. In a centralized system, the union would not try to raise prices and restrain employment because they are bargaining on behalf of all of society. Table 3 does not appear to strongly support this hypothesis. The two countries with the lowest NAIRU estimates, Japan and Switzerland, have intermediate centralization which the theory suggests would have the highest unemployment rates. Alternatively, Italy has a highly centralized system, yet has very high unemployment. An offsetting effect may render the advantage useless: not every firm is equally productive,

(continued...)

**Table 3: Unionization Comparisons**

Country	Unionization	Collective Bargaining Coverage	Degree of Centralization/Coordination	NAIRU estimate
Switzerland	27%	50%	Intermediate	2.5
Japan	24%	21%	Intermediate	3
Austria	42%	98%	High	4
Norway	58%	74%	High	4.5
United States	16%	18%	Low	5.6
Portugal	32%	71%	Intermediate	5.6
Netherlands	26%	81%	Intermediate	5.7
Denmark	76%	69%	Intermediate	6.4
Sweden	91%	89%	Intermediate	6.5
New Zealand	30%	31%	Low	6.8
U.K.	34%	47%	Low	7.8
Germany	29%	92%	High	7.8
Canada	38%	36%	Low	8
Belgium	54%	90%	Intermediate	8.4
Australia	35%	80%	Low	8.8
Italy	39%	82%	High	10.1
France	9%	95%	Intermediate	10.3
Spain	19%	78%	Intermediate	19.7

Source: OECD Employment Outlook, 1997. The data are from 1994, the latest available international data.

Note: Data for Unionization and Collective Bargaining Coverage are calculated as a percentage of the labor force. Rankings for degree of Centralization/Coordination are compiled by the OECD.

## Work Disincentives

Policies can create disincentives to work by making employment less attractive to workers relative to unemployment. Unemployment insurance is an often cited example of a disincentive, but other policies indirectly influence incentives as well. Most Western Europeans enjoy a broader array of government services than Americans, and many of these services are lost either when employment is accepted or income rises. In considering the overall policy disincentives to work, an OECD study<sup>15</sup> considered not just direct unemployment payments, but also family payments, and grants for food, housing,<sup>16</sup> and child care. From these data, it estimated

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<sup>14</sup> (...continued)

so wages that are equalized country-wide could impose high wages on less productive firms, reducing their demand for workers. L. Calmfors and J. Driffill, "Bargaining Structure, Corporatism, and Macroeconomic Performance," *Economic Policy*, April 1998, p.14.

<sup>15</sup> *Benefit Systems and Work Incentives*, OECD, 1998.

<sup>16</sup> It has been suggested that housing benefits can also contribute to higher unemployment in another way. If housing benefits are not transferable when moving, as is the case in some countries, then they could prevent unemployed people from moving from economically (continued...)

“replacement rates” that calculated what percentage of the average “production” worker’s salary (including benefits when employed) is replaced through these benefits, net of tax considerations. High replacement rates, intended to cushion the financial impact when a worker becomes unemployed, in effect constitute a very high marginal tax rate when the worker is re-employed and benefits are lost.<sup>17</sup> The higher these tax rates are, the more workers will be dissuaded from working.

Table 4 presents the results of the OECD study.<sup>18</sup> Most countries operate an unemployment system that makes higher “unemployment insurance” payments at first (and only to those workers with sufficient job tenure and who are involuntary unemployed), and lower unemployment payments for the long-term unemployed (and, in some cases, the never employed).<sup>19</sup> The third column presents the estimated replacement rate for the short-term unemployed single worker, and the fourth column presents the estimate for the short-term unemployed married worker with two children. The fifth column presents the duration in months of the short term benefit rate before benefits drop to the long-term rate. The duration is important in countries where the drop in benefits (especially for single workers) from short-term unemployment to long-term unemployment is substantial. It should be noted that in none of the countries do individuals lose all benefits when short-term unemployment insurance ceases, typically as long as the individual demonstrates that he is seeking a job. The sixth and seventh columns present the estimated replacement rate for the long-term unemployed, for a single and married worker with two children, respectively. Of the sample countries, only the United States, Portugal, and Italy place time limits on long-term payment eligibility. Unlimited long-term benefits may cause greater disincentives to work than short-term unemployment insurance with a long duration.

Commentators who criticize unemployment benefits as creating disincentives to work point to the fact that in some countries, the replacement rate is so high that workers would hardly earn more if they spent five days a week working. In Sweden, this rate reaches 100% for a long-term unemployed couple with two children. This argument is usually directed at the long-term unemployed, since the justification for short-term unemployment benefits is that they prevent a major short-term upheaval in workers’ finances while they involuntarily change jobs. As the replacement rate for couples with two children is higher than for single workers, the last column ranks those replacement rates as a proxy for the disincentives to work that a country places on its citizens. The ranking increases as disincentives increase. In most (but not all)

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<sup>16</sup> (...continued)

depressed regions to booming regions.

<sup>17</sup> For example, a 59% replacement rate implies a 66% average marginal effective tax rate: in effect, employees would keep only \$0.34 of each additional \$1 they earned on average. This measure is calculated by dividing the change in taxes from unemployment to work by the change in income. By contrast, the replacement rate is the net after-tax effective income when unemployed divided by the net after-tax effective income when employed.

<sup>18</sup> Information was available for all sample countries except New Zealand.

<sup>19</sup> Australia and Belgium are the only countries in the sample that do not limit the duration of short-term unemployment insurance.

cases, the ranking of disincentives for this group are similar to the rankings of other statistics in the chart.

**Table 4: Comparison of “Safety Net” Benefits**

Country	NAIRU	Replacement Rate (Short-Term)			Replacement Rate (Long-Term)		
		Single	Couple with 2	Duration (months)	Single	Couple with 2	Rank
Switzerland	2.5	73	84	5	61	90	15
Japan	3	59	56	10	32	65	10
Austria	4	57	73	12	54	70	11
Norway	4.5	66	73	36	36	54	5
United States	5.6	60	61	6	7	48	2
Portugal	5.6	79	77	30	42	61	7
Netherlands	5.7	75	85	60	60	79	14
Denmark	6.4	62	77	60	48	97	16
Sweden	6.5	72	84	10	58	100	17
U.K.	7.8	50	64	6	50	73	12
Germany	7.8	60	74	12	54	52	4
Canada	8	63	69	10	25	59	6
Belgium	8.4	64	60	no limit	46	63	9
Australia	8.8	37	74	no limit	37	74	13
Italy	10.1	36	54	12	28	62	8
France	10.3	71	74	60	38	50	3
Spain	19.7	76	74	24	25	43	1

Source: *Benefit Systems and Work Incentives*, OECD, 1999.

Note: All statistics are based on the benefit structure in July 1997.

By all measures, the United States is among the countries that create the fewest disincentives to work. But among the other countries, the correlation between disincentives and unemployment seems weak. For instance, Italy has one of the most ungenerous safety nets in the sample, while Switzerland and Northern European countries are very generous.

There are other components of the unemployment policy regime that are more difficult to quantify but still have important effects on incentives. Strict benefit eligibility (for example, making eligibility dependent on a demonstration of active job searching) can help offset work disincentives, but it is difficult to quantify the difference in strictness from country to country. Most countries have such rules, but they are more sternly formulated and enforced in some countries than others. What statistics exist seem to indicate that by far, the United States and Switzerland have the strictest regimes, while Germany and New Zealand have the laxest.<sup>20</sup> Also, countries such as Sweden, the Netherlands, and Denmark all partially offset the disincentives

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<sup>20</sup> Based on benefit refusal rates, which are not available for all countries in the sample. Refusal rates are imprecise because different countries define and classify a refusal in different ways. See *OECD Employment Outlook*, 2000, p. 136 for more information.

of their generous unemployment benefits by employing more “active” policies, such as job retraining and placement programs, for combating unemployment than the “passive” policy of simple benefit entitlement. All three have lower than average unemployment rates.<sup>21</sup>

To summarize, there was not a single country in the sample that was restrictive in every aspect of its labor policies. This includes the high-unemployment European countries that are often thought to be the economic antithesis of the United States. However, for most of the sample, there is a pattern of fewer market-friendly policies as the unemployment rate rises. Overall, the United States had by far the least restrictive labor market policies.

## **Shortcomings of the Mainstream Argument**

A thorough look at the evidence reveals that while the often cited economic argument has merit, it is not as dependable as some believe. This section first points to empirical inconsistencies with the mainstream argument, then the second and fourth section review two theoretical arguments that have been offered to explain the inconsistencies. The third section suggests that the mainstream argument may be correct, but the unemployment rate is the incorrect measure of the detrimental effect that labor market distortions have on the labor force.

### **Empirical Inconsistencies**

How well do the facts support the mainstream economic argument? When looking at the EU compared to the U.S. as a whole, it is well supported: the United States, with its open labor markets, has enjoyed very low unemployment, while the EU, with its various labor market restrictions has suffered from relatively high unemployment. The primary problem with the mainstream argument is that while it broadly fits the EU-U.S. comparison, it does a poorer job explaining the experience of individual countries. Countries such as Portugal, Austria, and Norway have enjoyed very low unemployment throughout the 1990s without having labor markets that are discernibly more flexible than the high-unemployment countries. Other low unemployment countries like Switzerland, Denmark, Japan, and the Netherlands are flexible in some aspects, but less so overall than the “English-speaking” countries which had intermediate levels of unemployment.

If the overall openness of labor markets does not determine unemployment rates, the next question is whether the experience of the low unemployment countries suggests that openness in some areas is more important than others. But among these countries, there is no clear pattern to the areas where they are flexible – each country’s regime is unique. Nor can strong economic growth alone explain the difference, since the NAIRU estimates control for the effects of growth. Of the four countries with the lowest NAIRU estimates, only Austria did not experience at least one year of negative growth in the 1990s.

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<sup>21</sup> A simple cross-country comparison of “active policy” expenditures is not useful, however, because countries with more unemployed will need to spend more, making it seem as though spending less is a way to lower unemployment.

One defense advanced for the mainstream position is that reform made the low unemployment possible. Horst Siebert argues that it is precisely labor market liberalization that caused Dutch and Norwegian unemployment to fall.<sup>22</sup> But when applied systematically, this argument does not hold. While the Dutch and Norwegian labor markets are more flexible than previously, they are still not much more flexible than other Western European countries, nor are they yet as flexible as English-speaking countries. Portugal and Austria seem to have liberalized even less. Meanwhile some high unemployment countries that have moved (slowly) toward labor market reform have not seen unemployment decline.

On the reverse side of the question, the experience of the countries with labor market flexibility closest to the U.S. (United Kingdom, New Zealand, and Canada) is mixed. None of these countries was among the high unemployment countries, but none was in the low unemployment group either, even though their labor markets were noticeably more flexible than most of the low unemployment countries. All of these countries enjoyed decreasing unemployment in the late 1990s, and it has been theorized that their earlier reforms have finally borne fruit and they are now becoming low unemployment countries.<sup>23</sup> If this is true, it may be the case that labor market reforms do pay off in terms of lower unemployment, but take a very long time to bear fruit as all three of these countries have liberalized over the past 20 years. For instance, many of Britain's reforms hark back to the Thatcher era. By contrast, two other intermediate countries with relatively rigid labor markets, Germany and Sweden, seem, if anything, to be on their way towards becoming high unemployment countries, as their unemployment rates steadily increased as the decade progressed.

The pattern is clearer with the high unemployment countries. Their labor market policies appear intrusive in most areas. The only surprise in this group is Spain, which is not the most intrusive labor market regime by any of the measures considered, yet is the only country in the sample to have had on average over one-fifth of its labor force unemployed from 1991 to 1999.

Because of the unexpected experience of small, low-unemployment countries, many econometric studies have found only weak (i.e., "statistically insignificant") or no evidence that any of the factors discussed above have negative effects on unemployment.<sup>24</sup> For example, in a cross-country regression of member countries, the OECD found no statistically significant evidence that employment protection legislation or increased unionization increases unemployment. It found that increasing

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<sup>22</sup> Horst Siebert, "Labor Market Rigidities: At the Root of Unemployment in Europe," *Journal of Economic Perspectives*, v.11, n.3, Summer 1997, p.37.

<sup>23</sup> Although an English-speaking country, in many areas Australia's labor market is still restrictive. It is an high unemployment country that may be becoming an intermediate country in the late 1990s.

<sup>24</sup> S. Nickell and R. Layard, "Labor Market Institutions and Economic Performance," Centre for Economic Performance, Discussion Paper 408, 1998. Olivier Blanchard, "Employment Protection, Sclerosis, and the Effect of Shocks on Unemployment," *Lionel Robbins Lectures*, October 2000.

the replacement rate of unemployment benefits caused a negligible increase in unemployment.<sup>25</sup>

Most of these studies have been inconclusive because they treat very small countries, some of which have low unemployment, as equal to larger countries, most of which have high unemployment in Western Europe. Because of this fact, a considerable majority of the population of Western Europe is affected by high unemployment, even if a smaller proportion of states is affected. However, this approach may be misleading. After all, there are regions within high unemployment countries that enjoy low unemployment such as Northern Italy, Bavaria in Germany, and Flanders in Belgium. Yet few economists would suggest that the policies of the high unemployment countries have not been economically detrimental to the country as a whole simply because regions of the countries have successfully generated employment. Since the small Western European countries have economies that are well-integrated with their larger neighbors, there may be little practical economic difference between a low unemployment country and low unemployment region, save political sovereignty.<sup>26</sup>

### **Do the Positive and Negative Effects of Rigidities Cancel Out?**

One objection to the mainstream theory based on the empirical evidence is that the policies that produce labor market rigidities have two offsetting effects that could nearly cancel each other out. While labor market rigidities will prevent new jobs from being created, they will also prevent old jobs from being destroyed. They may also lead to higher self-employment, making marginal workers prone to unemployment more flexible than if they were in regular employment.

By contrast, the mainstream argument is based on the assertion that in rigid labor markets job destruction will outstrip job creation, at least in the long run. It may be true that the implementation of a law that made firing illegal would have little effect on unemployment this year. In fact, it might make unemployment lower this year since some of those who would have been fired now would not be. But in the long-run, it may cause unemployment to rise since expanding labor forces require expanding employment opportunities. The mainstream argument posits that labor market rigidities will prevent employment opportunities from increasing quickly enough to meet the needs of new labor market entrants. These types of dynamics, if true, are difficult to capture accurately in statistical studies.

It is far from settled which of these two contentions is correct. But if the effects of labor market rigidities on employment do cancel each other out, from an efficiency perspective this would still not lead to an efficient economic outcome. Competitive

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<sup>25</sup> *OECD Employment Outlook*, June 1999, p.78.

<sup>26</sup> There are other reasons why measuring labor market rigidities may be too complex to get accurate statistical results. For example, an economist must attempt to decompose quantitatively a vast range of labor market policies, many of which are non-comparable across countries. Mistakes can be made both in the quantitative weighting of qualitative policies and in considering which policies to include or omit. Nor is a similar law likely to be administered uniformly across countries.



markets—including the labor market—respond to changing conditions by reallocating resources efficiently and routinely, and it is this reallocation of resources, called “creative destruction,” that is at the heart of productivity growth. If a policy prevents workers from migrating from inefficient jobs to new jobs that are more efficient, due for instance to technological change, then a chance to increase productivity will have been missed. Furthermore, there may be negative effects on incentives if workers cannot be held accountable for their performance, and these effects can lower productivity.<sup>27</sup> Since productivity ultimately determines wages and the standard of living, a policy that was employment neutral could still be economically inferior. On the other hand, many workers do attach a positive economic value to job stability, and may be willing to pay a price in the form of lower future living standards to prevent being displaced from old job opportunities to new ones.

### **Is Unemployment the Right Way to Judge the Labor Market?**

Unfortunately, it is not always the same individual who benefits from greater job stability and security and bears the cost in countries with labor market rigidities. Economists argue that one result of labor market rigidities is an increase in the proportion of structurally unemployed, since the rate of job creation is lowered, and a decrease in the proportion of frictionally unemployed, since the efficient allocation of labor is impeded (i.e., people who would change jobs in the U.S. stay put in Europe). If that is the case, workers in a country with rigid labor markets but an unemployment rate similar to the United States could still be worse off than U.S. workers, since structural unemployment is usually considered more damaging, in terms of wasted resources and human misery. Table 5 offers evidence of this theory, and in most cases the evidence seems promising.<sup>28</sup> Unsurprisingly, countries with high unemployment have much higher long-term unemployment, as theory would suggest. But also as theory would suggest, in general the English-speaking countries tend to have lower long-term unemployment rates than less flexible countries with lower unemployment.

Even if labor market rigidities did not lead to higher rates of recorded unemployment, they may still lead to sub-optimal labor market results that are less visible. One result may be fewer jobs, displayed as a lower labor force participation rate and employment-population ratio. As seen in Table 5, the difference in employment-population ratio partly explains why some Western European countries seem to enjoy low unemployment with rigid labor markets—a high percentage of the population may have simply dropped out of the labor force.<sup>29</sup> By the standard

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<sup>27</sup> Defenders of European labor markets state that there can be efficiency gains from labor market rigidities. For example, it has been argued that the atmosphere of trust and stability leads to higher morale and greater worker training, both of which in turn increase productivity.

<sup>28</sup> The reader should remember that by comparing averages over time, as done in Table 5, cyclical unemployment will be included in those averages. Therefore, countries that suffered from cyclical unemployment during that time period will appear to have performed worse than they did, making direct cross-country comparisons imprecise.

<sup>29</sup> Two other factors that influence the labor force participation rate are cultural differences  
(continued...)

definition, an individual is unemployed only if he has been seeking employment in the recent past and could not find it. It does not include discouraged workers who have stopped seeking employment. Many European countries also make early retirement very attractive. While this does not increase the unemployment rate, it lowers the employment-population ratio, all else equal.

**Table 5: Alternative Measures of Labor Market Conditions**

Country	Unemployment Rate (1995-1999)	Employment-Population Ratio (1995-1999)	Rank	Long-term Unemployment as % of Unemployed (1996-1999)	Rank	Part-time Work as % of Employed (1996-1999)
Japan	3.7	69.4	8	21.3	5	23.2
Switzerland	3.7	78.7	1	32.0	9	24.2
Norway	4.1	76.4	2	10.8	2	21.0
Austria	4.2	67.7	10	28.8	7	11.4
United States	4.9	73.3	4	8.3	1	13.6
Netherlands	5.1	67.5	11	47.6	13	29.7
Denmark	6.0	75.0	3	25.3	6	16.5
Portugal	6.2	65.0	13	48.7	14	9.7
New Zealand	6.7	70.2	6	20.1	4	22.6
U.K.	7.3	70.6	7	35.2	11	23.0
Australia	8.1	67.3	12	30.5	8	25.8
Canada	8.8	68.4	9	14.5	3	18.9
Sweden	8.8	71.8	5	32.3*	10	14.3
Germany	9.0	64.5	14	50.6	15	16.1
Belgium	9.5	57.2	16	61.0	17	17.1
Italy	11.7	51.2	17	63.2	18	11.2
France	11.9	59.2	15	41.3	12	14.7
Spain	20.1	50.0	18	54.2	16	7.8
E.U.	10.2	61.0	-	49.0	-	15.8

Source: *OECD Employment Outlook*, 2000.

\*1996-1998 average.

Note: Long-term unemployment defined as a duration of over one year. The table has been ordered by 1995-1999 unemployment averages instead of the 1991-1999 NAIRU estimates because the other data in the table were not available for the 1991-1999 period.

Higher incidence of part-time work is another way that rigidities may manifest themselves. While some workers work part-time by choice, others are forced to by a dearth of full-time opportunities. The latter is more likely in countries where the attraction to employers of offering part-time work is that it is more lightly regulated than full-time work. In these countries, the mixture of part-time work and rigid labor markets seem to be a double-edged sword. It seems to lower the unemployment rate, but creates a two-tiered labor market. “Lucky” full-time workers enjoy a safer (and

<sup>29</sup> (...continued)

and the fact that the official measurement will always be incomplete (e.g., due to black market employment.)

sometimes better paying) job than a worker in a flexible labor market such as the U.S., while “unlucky” part-time workers face a precarious position with less chance of upward mobility than a part-time U.S. worker.<sup>30</sup> However, it can be argued that the precariously-employed part-time worker in, say, the Netherlands, is still better off than the unemployed worker in, say, France, Spain, or Italy.

Furthermore, labor market rigidities may harm some demographic groups more than others. For example, it has been suggested that if labor market rigidities are good at protecting existing jobs, a majority of which are held by older men, but bad at creating new employment opportunities, then the brunt of labor market rigidities are borne by women and youths. Table 6 offers evidence of this conjecture.

**Table 6: Unemployment Rates in 1999 for Selected Demographic Groups**

Country	Young	Women	All
Switzerland	5.6	3.6	3.2
Netherlands	7.4	4.9	3.3
Austria	5.9	4.8	3.7
United States	9.9	4.4	4.2
Portugal	8.7	5.3	4.5
Japan	9.3	4.7	4.7
Denmark	10	5.9	5.2
United Kingdom	12.3	5.1	6.1
New Zealand	13.7	6.6	6.8
Sweden	14.2	6.7	7.2
Australia	13.9	7.2	7.2
Canada	14	7.3	7.6
Germany	8.5	9.3	8.7
Belgium	22.6	10.3	9
France	26.6	13.7	11.3
Italy	32.9	16.4	11.4
Spain	28.5	23.2	15.9
EU	17.2	10.9	9.2

Source: *OECD Employment Outlook*, 2000.

Note: The OECD defines young as between the age of 15-24.

However, cross-country comparisons can be difficult because cultural values affect employment trends differently. It could be cultural differences, not economic problems, that change the labor force participation rates of the young, old, and women. For example, it has been suggested that one reason Japan has enjoyed such low unemployment rates is because it is culturally accepted that women will leave the labor force during times of recession, and not be counted as unemployed since they

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<sup>30</sup> In 1994, 3.5% of the U.S. labor force was classified by BLS as involuntarily employed part-time. This figure fell throughout the decade to 2.4% in 1999. About 1/4 of all part-time workers are part-time involuntarily.

are not actively seeking employment. Culture may also influence the willingness to work part-time. Other factors could also affect participation rates. For example, countries with inexpensive child care and fewer young may have higher female participation rates in the workforce. The relevant question, which cannot easily be captured by the data, is if the people most affected by labor market rigidities are satisfied or unsatisfied with the position that their culture has assigned them.

## **Hysteresis: An Alternate Theory**

Rejecting the mainstream argument because of the lack of evidence is not useful to policymakers without a theoretically sound counter-argument. Put bluntly, it cannot simply be coincidental that France, Italy, Spain and other European economies have been stuck with double digit unemployment for a decade while other countries have not had similar problems. An important and comprehensive alternate theory advanced by some economists is the hysteresis theory.

In the mainstream theory, there is no long-run tradeoff between inflation and unemployment. The unemployment rate will eventually drift back to some equilibrium level regardless of short-term booms and busts. The hysteresis theory takes a step toward reversing this mainstream view. Hysteresis is a scientific term that is defined by the Merriam-Webster dictionary as “a retardation of an effect when the forces acting upon a body are changed.” It builds on the observation that all European countries used to have very low unemployment. High unemployment came about when the countries suffered prolonged recessions. But after the recessions ended, the unemployment rate never fell back to the previous NAIRU, as mainstream theory would suggest. Since economic growth resumed without the usual positive effect on employment, employment is said to be suffering from hysteresis.

Laurence Ball believes that the main difference between the high unemployment countries (which he counts as France, Italy, Belgium, Denmark, Canada, and Spain) and low unemployment countries (United Kingdom, Portugal, Netherlands, and Ireland) is the fact that the high unemployment countries suffered prolonged recessions while the low unemployment countries did not.<sup>31</sup> The reason that this happened, he argues, is that only a falling unemployment rate among the short-term (frictionally) unemployed causes inflationary pressures because the long-term (structurally) unemployed have, in effect, left the labor market. They could be unemployable because employers use unemployment duration as a proxy for a worker’s competence, or because unemployment erodes their skills, or because they have given up job searching. In this theory, when countries suffer protracted recessions, some laid-off workers move from being short-term unemployed to being unemployable. As a result, the country’s overall NAIRU increases. From this, Ball draws a conclusion at odds with mainstream theory: high unemployment countries may be able to make a worthwhile long-term tradeoff between inflation and unemployment by using inflationary policies to bring the long-term unemployed back into the labor market.

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<sup>31</sup> Laurence Ball, “Aggregate Demand and Long-Run Unemployment,” *Brookings Papers on Economic Activity*, 2, (Washington: 1999), p.191.

Why do some European countries seem susceptible to hysteresis while countries like the United States have not seen high unemployment persist after a recession has ended? In the seminal paper on the topic, Olivier Blanchard and Lawrence Summers suggest that the countries which would be affected by hysteresis may be exactly those countries whose labor markets are identified by mainstream theory as harmed by rigidity.<sup>32</sup> They too see the long-term unemployed as effectively being removed from the labor market. Hysteresis occurs because over time, more and more workers are pushed into long-term unemployment. They then ask why countries suffering from hysteresis are likely to be pushing so many people into long-term unemployment. They use the concept that “insiders” (who are workers) bargain for the highest possible wage, indifferent to the interests of “outsiders” (who are the unemployed.) As a result, the “insiders” choose a wage higher than the value of the “outsiders” productivity, and the “outsiders” remain unemployed. The authors then ask what would happen in the case of a recession? Firms, unable to adjust wages in the face of falling profits, would be forced to lay off some workers. When the recession ended, there would now be more “outsiders” and fewer “insiders.” The remaining “insiders” would bargain for wages indifferent to their former co-workers, and as a result the NAIRU would be permanently higher.

The appeal of the argument of Blanchard and Summers is that it attempts to reconcile the mainstream argument with the empirical evidence. Based on the empirical fact that major Western European countries seem to have suffered from hysteresis while countries like the United States have not, they argue that one reason for the unemployment difference may be that the U.S. labor market is too flexible, for the reasons posited in the mainstream argument, to allow “insiders” the bargaining power needed to abrogate the labor market outcome. As a result, long-term unemployment could not persist in the United States.<sup>33</sup> Like Ball, they conclude that Western European countries with low unemployment but rigid labor markets have avoided hysteresis merely because they have been fortunate enough to avoid prolonged recessions that increase the pool of “outsiders.”

To (partially) overturn the mainstream argument, the alternative should at least do a better job of explaining the empirical record. The hysteresis argument seems to fit the facts well in a few countries like France, Italy, Sweden, and the Netherlands. Perhaps the most convincing cases are Finland and Ireland. Finland arguably suffered the worst recession in Western Europe since World War II in the early 1990s. During the recession, its unemployment rate rose from 3.2% in 1990 to 16.4% in 1993, and was still in double digits in 1999 after several years of strong growth. On the other hand, Ireland has experienced a very strong expansion in the 1990s, and its

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<sup>32</sup> Olivier Blanchard and Lawrence Summers, “Hysteresis and the European Unemployment Problem,” *NBER Macroeconomics Annual 1*, (Cambridge, MA: 1986).

<sup>33</sup> Blanchard and Summers do not rule out the possibility that labor market structure has little to do with hysteresis. They point to the American experience in the Great Depression, where unemployment remained high until 1940 despite the recovery, as proof that it may not.

unemployment rate has fallen from 15.6% in 1993 (third highest in Western Europe) to 5.8% in 1999.<sup>34</sup>

But contrary to Ball's assertion, the hysteresis argument has at least as many oddities as the mainstream argument. For example, Portugal's low unemployment has often been touted as evidence of the hysteresis argument because it has avoided recessions, yet Portugal's economy has moved in step with Spain's over the past 20 years and Spain has the industrialized world's highest unemployment rate. Likewise, Switzerland and Japan have arguably had the industrialized world's most sluggish economies in the 1990s, as measured by large output gaps for most of the decade, yet they have the industrialized world's two lowest NAIRU estimates.

## **Shortcomings of the European Political Solution**

European politicians frequently make three recommendations to solve the unemployment problem. All three have been criticized for theoretical shortcomings that mean they would likely accomplish little if adopted. Were the United States to face high unemployment, it is doubtful that these policies would be helpful.

Ironically, many of the labor market rigidities in Western Europe were instituted in the 1950s and 1960s. Primarily because of the "catch-up" effect of rebuilding their war-ruined economies, this was a time of extremely high economic growth in Europe. As a result, labor was in such short supply that these policies had little adverse effect on unemployment. High unemployment only emerged during the the 1970s downturn. Many European politicians declare that a renewed period of high growth is all that is needed to lower unemployment. Unfortunately, given the world wide productivity slowdown that originated the 1970s, returning to earlier levels of growth does not appear to be an available option, as Europe has not yet shared the American renaissance of high productivity growth. An attempt to grow above the sustainable rate through expansionary fiscal or monetary policy would merely cause inflation, and would not result in any permanent improvement in unemployment.<sup>35</sup> While no major Western European economy has suffered from a recession since 1991, it is true that many Western European countries could probably have grown more quickly during the 1990s. Comparing the countries' NAIRU estimates to their average unemployment, a look at Table 1 reveals that had they grown more quickly, they would have had lower unemployment. But the NAIRU estimates also suggest that higher growth is not a permanent solution. Even if these countries were growing at the highest sustainable growth rate, most likely would be left with uncomfortably high unemployment levels.

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<sup>34</sup> For these reasons, Finland and Ireland were not included in this paper's sample. See the appendix for more details.

<sup>35</sup> In the hysteresis framework, on the other hand, there may be an exploitable tradeoff between higher inflation and a reduction in the long-term unemployment rate. However, Blanchard and Summers note that in an insider-outsider framework, there may be no tradeoff unless the economic change is a surprise. Otherwise, insiders will simply increase their wage demands accordingly.

The second political argument popular in Europe is that governments can solve the unemployment problem directly by creating more jobs. This approach is unlikely to succeed in practice. An economy has a finite amount of resources, and a government mandate will not create new resources. When a government intervenes in a market that is not suffering from a market failure, as is arguably the case with the labor market, most likely it will simply shift resources from their market allocation, not create new resources. In other words, the creation of public sector jobs or the subsidization of private sector jobs will mostly be offset by a decrease in non-subsidized private sector employment. An observer might assume that the presence of high unemployment is proof of a market failure. In the mainstream framework, it is not a market failure, but the unintended result of government intervention that significantly affects the market's fluid function.<sup>36</sup>

Finally, European governments appear to view the amount of work available as fixed, and believe that the employed can share their work with the unemployed. One way this manifests itself is in the encouragement of early retirement to “make way for the newcomers.” Another way is in measures like France’s 35 hour work week, without a reduction in compensation, so that the extra 2.5 hours can be given to the unemployed. These approaches appear to put the cart before the horse: it is not the economy that determines the (fixed) number of jobs, it is the number of workers that determines the size of the economy. Unemployment does not indicate a lack of work to do, it is indicative of barriers that prevent new jobs from being created. As Jackman *et al.* observe,

“This should be obvious to anyone who contemplates the employment miracle which happened when the Pilgrim Fathers landed on Cape Cod and found a sudden increase in the demand for labor on those inhospitable shores.”<sup>37</sup>

For example, 22 million new jobs have been created in the United States in this expansion – far more than the number that have been eliminated. This job sharing approach is unlikely to lower unemployment, therefore, but it is likely to lower output.

## Conclusion

The international experience with unemployment offers a broad range of policy choices and outcomes. These outcomes may be helpful to U.S. policymakers in deciding what type of labor market and unemployment policies are best suited for this country. Theory and evidence to date, however, present a mixed picture.

It is important to note that economic evidence that labor market rigidities cause unemployment does not necessarily lead to policy prescriptions that labor market

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<sup>36</sup> The presence of so many labor market rigidities makes it more difficult to say whether net employment creation by the government would be possible if formulated correctly. What mainstream economists would argue is that labor market liberalization would be a sure-fire way to lower the unemployment rate.

<sup>37</sup> R. Jackman, R. Nickell, and S. Layard, “Combatting Unemployment. Is Flexibility Enough?”, *Centre for Economic Performance*, Discussion Paper 293, March 1996, p.9.

rigidities should be eliminated. From an efficiency perspective, economists can confidently conclude that the United States has benefitted from lower levels of labor market distortions. But distortions may serve non-economic goals that are valuable to society, such as income equality, fairness, and stability. All these goals may be defined differently by different members of a society. This makes an economic comparison impossible, but does not imply that the goals should be dismissed when compared to economic efficiency.

Most industrialized countries have experienced a tradeoff between greater unemployment and the pursuit of these non-economic goals, and the tradeoff becomes more economically costly as market distortions increase. The experience of the high unemployment countries illustrates the costliness of the tradeoff most starkly. A small or moderate labor market distortion may produce a tradeoff between unemployment and these goals that some countries may deem beneficial; a greater distortion may make the tradeoff too costly. Since U.S. unemployment is currently so low, and its labor markets so flexible, the cost of these tradeoffs is likely to be much more favorable here than in other industrialized countries.

These distortions can have unintended consequences that negate much of the benefit the tradeoff originally sought to provide. One can reasonably argue that European workers enjoy more income equality and stability than American workers. But one should also acknowledge that these benefits have been achieved at the cost of worse prospects for Europe's unemployed, especially among young and female workers. Looking at the unemployment rate alone is not a sophisticated enough measure of the true costs of policies that distort labor markets. In the high unemployment countries, many observers would conclude that the tradeoff could be achieved with different policies at a lower cost in terms of employment.

If the evidence is inconclusive, this probably says more about the complexity of the problem than the inaccuracy of the mainstream hypothesis. This complexity hinders public policy when attempting to judge which policies have an acceptable price and which do not. It may be the case that some policies lead to important non-economic gains with little additional unemployment, while others cause a disproportionate increase in unemployment. In light of the inability of econometrics to clearly dissect the effects of different policies, it is difficult to precisely predict the costs of policy tradeoffs; the judgement as to what is an acceptable cost is a political one.

After reviewing the evidence, an observer can conclude that the United States has successfully avoided the harmfully high unemployment outcomes of some other advanced industrialized countries because it has maintained the world's most flexible, unfettered labor markets. While some countries have enjoyed the benefits of more restrictive labor markets while maintaining unemployment levels similar to the United States, other countries have clearly suffered from those same policies. The countries that have experienced unacceptably high unemployment tend to be large nations, closer in size to the United States. All the countries with low unemployment and heavily distorted labor markets are very small, except for Japan, which has more labor market distortions than the U.S. but less than continental Europe.



## Appendix: Data Sources and Methods

**Sample Selection.** Nations included in the sample were chosen based on certain characteristics: that they were advanced industrialized countries with per capita incomes at least half the level of the United States, and that they experienced no extraordinary economic shocks or economic development in the 1990s.

Iceland, Luxembourg, Israel, European principalities, Singapore, and Hong Kong meet the criteria, but were excluded due to a lack of data; they are quite small, comparable in size to major U.S. cities. Only advanced industrialized nations were included; countries that were rapidly “catching up” in growth were excluded because their results were likely to be non-comparable. As a rule of thumb, countries with per capita income less than half of the United States in 1998 at purchasing-power-parity were considered countries still catching up.<sup>38</sup> Countries excluded that were near the cutoff were Korea, whose experience was overshadowed by the Asian crisis of 1997, and Greece, whom one could argue did not have stable enough macroeconomic policy in the 1990s for it to be comparable. Because they are still catching up, all ex-communist countries were excluded, even if their per-capita incomes were (slightly) more than one half that of the United States. Ireland was excluded because it had a unique and puzzling employment experience in the 1990s. Although its per-capita income is well above half that of the United States, it too is clearly still enjoying rapid catch-up growth (an average of 9.1% from 1995-1999), and its unemployment rate has fallen from 15.6% in 1993 (third highest in Western Europe) to 5.8% in 1999. The one country (slightly) below 50% of per-capita income that was included was Portugal. It has enjoyed steady (but not rapid) growth and macroeconomic stability in the 1990s, and its unemployment record marks an interesting contrast to its neighbors.

A comparison of unemployment experiences should exclude countries with exceptional economic factors. For this reason, Finland, whose unemployment rose from 3.2% in 1990 to 16.4% in 1993, was excluded. It suffered a terrible recession when the collapse of the Soviet Union, one of its major trading partners, coincided with a domestic financial crisis. Nevertheless, several other countries included have had exceptional economic factors in the 1990s, yet are included in the interest of making the study as comprehensive as possible. Germany experienced reunification, and in the process went from a moderate unemployment country to a high unemployment country because of extreme difficulty of integrating the ex-communist east (although its unemployment rate is lower than assumed once it has been standardized). Japan has undergone a decade of recession – yet remarkably it remains one of the lowest unemployment countries in the world. Norway’s economy is extremely sensitive to oil prices.

**Methodology.** Since every country defines unemployment differently, the OECD compiles unemployment rates based on a standardized definition. For most countries, the standardized measure is quite close to the official measure, with the exception of Germany, Austria, and Denmark, whose official measure is higher and Sweden and Switzerland, whose official measure is lower. Of course, every official

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<sup>38</sup> Data from *OECD Economic Outlook* 67, June 2000, p.175.

measure will be imprecise, as factors like black market employment are not directly measurable. These factors will be more important in some countries than others.

NAIRU estimates were not available so they were obtained using a very simple ordinary least-squares regression. The equation regressed was:

$$Unemployment_t = NAIRU + b * OutputGap_t$$

The output gap is an estimate of the deviation of actual GDP from potential GDP, as a percentage of potential GDP. The unemployment rate and output gap are observed by the OECD,<sup>39</sup> the NAIRU is the regression constant. In other words, it is the unemployment estimate when the output gap equals zero. The unemployment rate used was the standardized unemployment rate; in rare years where the standardized unemployment rate was not available, it was estimated.

These estimates are imprecise for a number of reasons. First, the NAIRU is determined by microeconomic factors, and the regression does not control for changes in these factors. One result is that when these microeconomic factors change, the NAIRU will change. For instance, if microeconomic changes are responsible for the dramatic decline in unemployment in the U.S.,<sup>40</sup> then the NAIRU estimate given is higher than the actual NAIRU today. For this reason, the estimate is not presented as the current NAIRU, but as the average NAIRU from 1991-1999. Second, the estimates do not attempt to correct for the influence of the business cycle in the past, but simply the business cycle in the contemporaneous year. In other words, since markets adjust with a lag, 1999 unemployment may not depend only on the 1999 output gap, but on the output gaps of the previous several years. Third, the output gap is itself an estimate. But since the output gap is influenced by the unemployment level, this shortcoming is not as serious as might be expected. Finally, the samples are very small, so the estimates cannot be thought of as statistically robust. Despite these shortcomings, it is better to make comparisons using NAIRU estimates than to make direct comparisons that distort countries' experiences based on the timing of their business cycle.

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<sup>39</sup> Statistical Annex, *OECD Economic Outlook 67*, June 2000.

<sup>40</sup> For more information, see U.S. Library of Congress, Congressional Research Service, *Why Has the Unemployment Rate Fallen When Inflation Is Stable?*, by Marc Labonte, CRS report RL30738, November 15, 2000.