

UNEMPLOYMENT AND JOBS IN INTERNATIONAL PERSPECTIVE

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EXECUTIVE SUMMARY

The United States has low unemployment rates and substantial job creation, while much of the rest of the industrialized world has high unemployment and little or no expansion in employment. Why? It was not always this way. As late as the early 1980s, the United States generally had higher unemployment than major industrialized economies. While American unemployment rates have drifted downwards, the trend in Europe and other places has been for unemployment to increase over time. Why?

Using detailed data on 24 OECD nations, the authors explore these and other questions. Some major findings:

- Unemployment rates once were higher in the United States than other major nations, but are now significantly lower than all other major nations except Japan;
- A larger proportion of the working age population is employed in the United States than in other major nations; the proportion working in America has increased over time, while it has fallen in most of Europe and in Japan;
- Variations in the unemployment rate over time are largely explainable by changing real unit labor costs; when the cost of hiring workers rises, employment opportunities decline and unemployment increases;
- Longer term levels in unemployment, or the “natural rate” of unemployment, are influenced by structural and institutional factors, including the size of governmental involvement; the bigger the relative size of government, the higher the natural rate of unemployment;
- If high-taxed European and other nations were to lower their tax burden as a percentage of output by 10 points (e.g., from 45 to 35 percent), it is predicted that this would lower the natural rate of unemployment by 3 percentage points (e.g., from 9 to 6 percent); and
- The American success in maintaining relatively low unemployment is at least in part due to the relatively free labor markets in the United States and the smaller size of the U.S. welfare state.

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INTRODUCTION

The recent international financial and economic crisis has brought home to Americans the considerable differences in economic conditions and circumstances between nations. Persistently high unemployment in Europe, and sharply rising unemployment in Japan, sharply contrast with the relatively low unemployment in the United States. Can citizens of other countries learn from the American labor market experience? Conversely, are there lessons for Americans to learn from the less successful employment experiences of nations in other parts of the globe?

This study looks at job opportunities and unemployment in an international perspective. We demonstrate how the American experience in job creation and unemployment reduction has been generally superior to that of other nations throughout the planet in two respects. First, American unemployment rates have fallen relative to other countries, and job opportunities have grown. Second, American unemployment rates have been relatively more stable than those of most other industrialized countries. We then suggest that most of the cyclical variations in unemployment rates over time can be attributed to changes in real unit labor costs - when labor costs rise, job opportunities decline and unemployment increases. Also, we demonstrate that the natural or long run rate of unemployment varies considerably with country, and those differences reflect different institutional and structural considerations, especially those associated with the growth of the modern welfare state and its effects on labor markets. For countries outside the United States, the natural rate of unemployment has risen as the state has grown relatively larger.

Unemployment and Jobs in International Perspective In Recent Decades

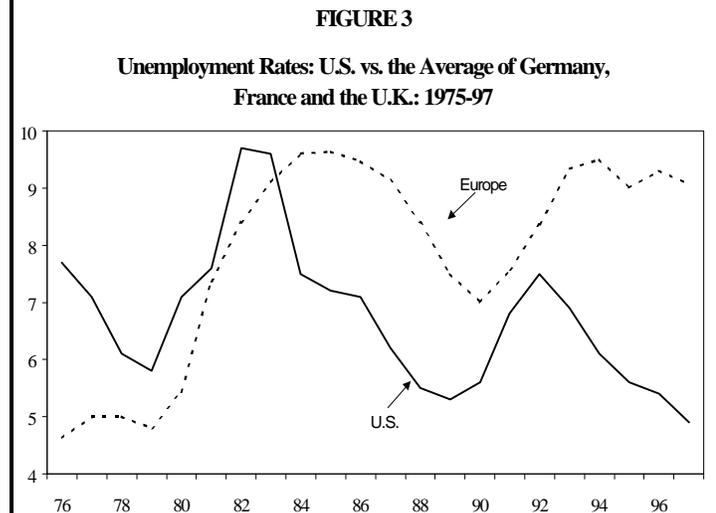
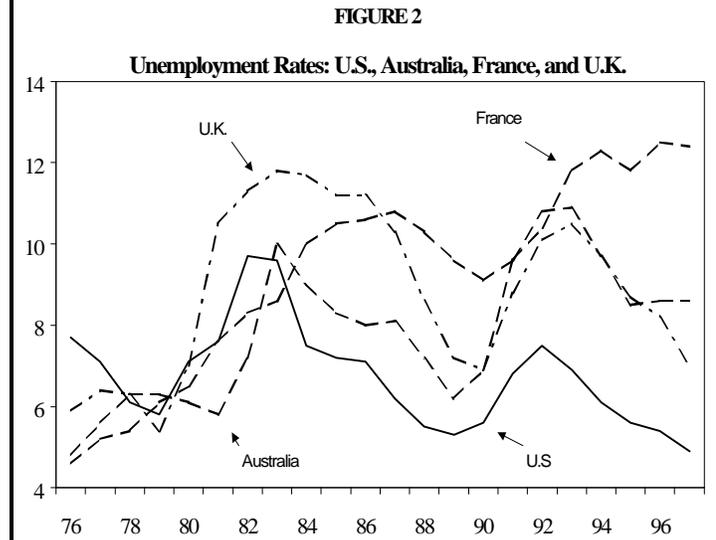
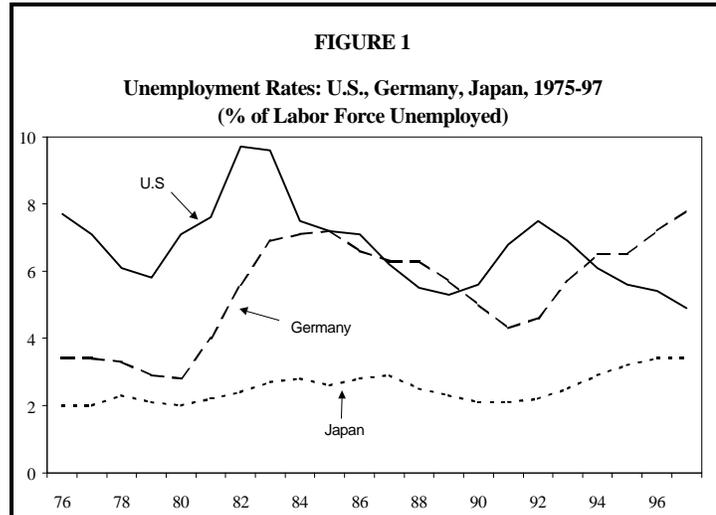
If one looks back a generation, unemployment rates typically were higher in the United States than in Europe or Japan. This is illustrated in Figure 1, which shows the time trend in unemployment in the leading countries of three continents: Europe, North America, and Asia. Note that in the mid to late 1970s, unemployment was far higher in the United States than in Germany or Japan, but by the late 1990s, the U.S. unemployment rate was well below that in Germany and converging on that in Japan. Over time, the U.S. unemployment rate on average fell, while the Germany and Japanese rates rose.

Nor is that conclusion a reflection of abnormalities in the unemployment patterns of Germany and Japan. In Figure 2, the American experience is compared with that of two other major European nations, France and Great Britain, as well as Australia. In the late 1970s, the unemployment rate was

significantly higher in the United States than in any of these other countries, while since the 1980s, it has been the lowest, with the rate differential generally rising over time. This is particularly true with respect to France, whose unemployment rate nearly *tripled* between 1975 to 1997 (going from 4.2 to 12.4 percent), but it is true of the other nations as well. The United States and Australia have nearly identical trends - but in the opposite directions! In 1975 the U.S. unemployment rate was 8.5 percent, and it fell to 4.9 percent by 1997. Australia went from 4.9 percent in 1975 to 8.6 percent in 1997.

The American-European contrast is particularly striking. To see it better, in Figure 3, we compare American unemployment with the average of the three largest European Union nations, Germany, France and Great Britain. Before 1984, the European unemployment rates were consistently below the American norm; since that date, the European rates have been consistently above that of the United States, with the differential exceeding four percentage points by 1997.

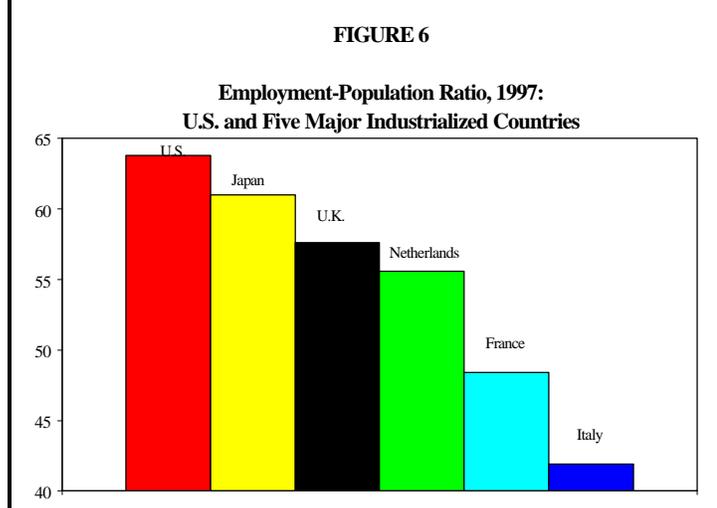
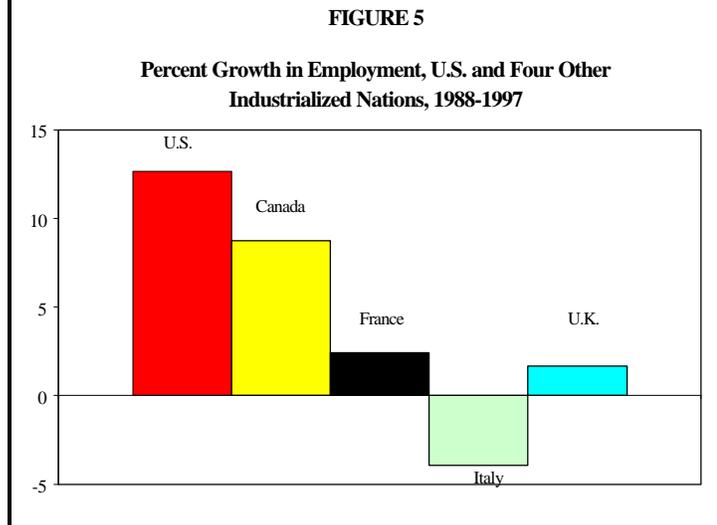
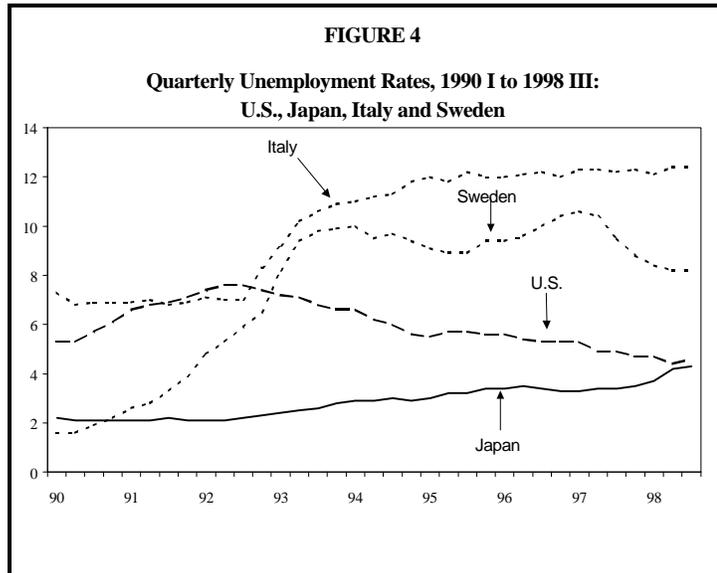
The relatively favorable position of the United States holds if one narrows the time horizon to the 1990s, if one uses quarterly rather than annual data, and if one looks at still other nations. Figure 4 shows that American unemployment has drifted downward throughout most of the 1990s, in contrast to European nations like Italy and Sweden, or even Japan. Note that the wide American-Japanese unem-

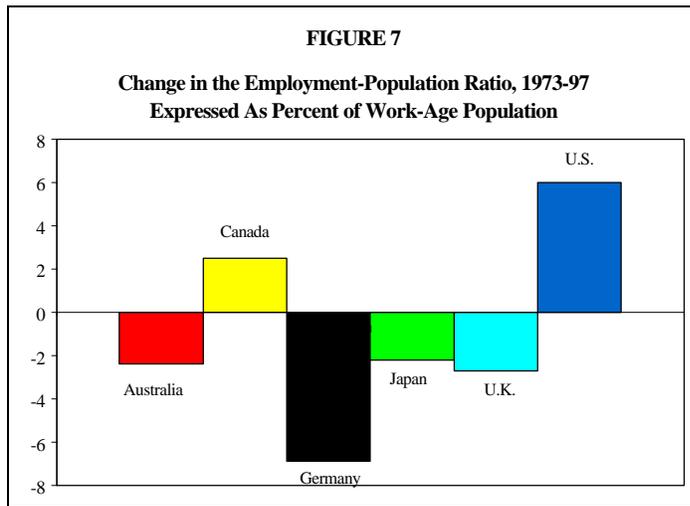


ployment rate differential observed at the beginning of the decade has essentially disappeared. Also observe that Sweden, considered the model for the modern welfare state, now has unemployment rates approaching double that of Americans, while the Italian rate is nearly triple that in the United States.

It can be argued that the use of unemployment as a measure of job opportunity may be misleading. For example, definitions of unemployment have varied over time and over space, leading to some data distortions. Accordingly, we looked at the percent growth in *employment* over the 1988 to 1997 period for several nations. Figure 5 shows that while job growth was low or even negative in several major European nations, it was relatively robust in the United States, more so even than in neighboring Canada.

One might argue that employment growth is closely related to the growth in the work-age population, that growth varying significantly between nations. Accordingly, in Figure 6, we compare the employment-population ratio for six major nations. The United States had a larger proportion of the 16 and over population working than any of the other nations, and markedly more than such major continental European nations as France and Italy. While almost 64 of every 100 work age Americans worked in 1997, in Italy, less than 42 did. The American ratio is more than 50 percent higher than that in Italy.





Finally, looking at *changes* in the proportion of the employment aged population working over the past generation (1973 to 1997), we see in Figure 7 that in the United States that proportion has risen by six percentage points (from slightly less than 58 to slightly less than 64 percent), while it has *fallen* in major European countries, Japan and Australia. The German and American employment-population ratios were similar in 1973, while today the proportion of Americans working exceeds that in Germany by about 30 percent.

An examination of descriptive statistics and simple econometric evidence on unemployment rates for the period 1975 to 1997 for nine leading industrialized nations (including all the members of the G-7) shows that the United States compares rather favorably on most counts (see Table 1). While the average annual unemployment rate in the United States over that time span was only modestly below the median of the nine nations (6.82 percent for the United States vs. the median of 7.07 percent for the nine nations), the standard deviation around that average rate was far lower in the United States than any other country save Japan. Thus the United States had greater stability with regards to unemployment than did most other nations.

Table 1. Descriptive Statistics and Regression Results: Time Trend in Unemployment Rates, the United States and Eight Other Countries, 1975-97

Country	Average Unemployment Rate	Standard Deviation	Regression Coefficient	T-Value	R ²
Australia	7.71	1.80	0.193	4.827	.526
Canada	9.20	1.57	0.107	2.391	.214
France	9.60	2.62	0.360	11.896	.869
Germany	5.33	1.60	0.161	4.295	.468
Italy	7.07	2.81	0.390	12.786	.886
Japan	2.49	0.45	0.046	4.412	.481
Sweden	4.03	3.09	0.355	5.689	.606
U.K.	8.67	2.22	0.103	1.529	.100
United States	6.82	1.29	-0.103	-2.948	.293

Source: Authors' computations from unemployment statistics provided by the U.S. Department of Labor, Bureau of Labor Statistics.

We regressed the unemployment rate for each nation against time to measure the "time drift" in the unemployment rate. In every nation except the United States, there was a positive time drift -

unemployment rose over time, in all cases except perhaps Great Britain in a statistically significant fashion. In some European countries (e.g., France and Italy) the upward drift was extremely pronounced and statistically robust. By contrast, the United States, unique among the nations, had a statistically significant *downward* drift to its unemployment. That is why by the late 1990s, the United States's unemployment rate compared favorably with virtually all other major industrialized nations, excepting, barely, Japan.

In short, there is overwhelming evidence that employment creation has been robust in the United States, but tepid in most of the rest of the industrialized world. Joblessness has reached double digit proportions in many European nations, while United States unemployment today is well below the average for the past 30 years. Why has the great United States jobs machine succeeded even as job creation has been near non-existent in many other nations?

The Role of Real Unit Labor Cost

In an attempt to shed light on the recent international developments on the unemployment front, we will explore the linkage between unemployment and a statistical measure known as real unit labor cost. Real unit labor cost (RULC) is defined simply as labor cost per unit of output expressed in constant dollars. Symbolically,

$$(1) \quad \text{RULC} = \text{TLC}/(\text{P Q})$$

where TLC indicates the total cost to producers of the labor inputs they use, P is the general price level, and Q is total output.

Economic theory suggests that unemployment and real unit labor cost move in concert. As real unit labor cost rises (falls), unemployment increases (decreases). We have explored the patterns of behavior of unemployment and real unit labor cost for the United States in our book *Out of Work: Unemployment and Government in Twentieth Century America*¹, confirming the hypothesized linkage. To illustrate the explanatory power of variations in real unit labor cost as the source of movements in unemployment, see Figure 10, comparing actual levels of unemployment in the United States with the values predicted by a regression model using unemployment as the dependent variable and RULC and changes in its components as independent variables. The data are for the period beginning with the first quarter of 1959 and concluding with the second quarter of 1996.

While the United States data are persuasive, given our introductory remarks about the shifting tides of unemployment in other areas of the world, the question naturally arises as to whether the framework employed for the United States is informative in an international context. To answer that question, we have assembled information for some 24 different countries around the world, relying, for the most part, on standard Organisation for Economic Cooperation and Development (OECD) data sources. The data are described in an accompanying box.

Figure 8 Econometric Standards

All regression equation results for individual countries meet the following econometric standards:

- (1) Pass standard tests for the absence of serial correlation;
- (2) Pass standard tests for the absence of heteroskedasticity;
- (3) Based on Granger pair-wise causation tests, show causation running from RULC to unemployment;
- (4) Pass at least two of the following model specification and stability tests:
 - a. Ramsey RESET test;
 - b. CUSUM test;
 - c. CUSUM SQUARES test; and
 - d. Recursive residuals test.

Individual Country Results

We begin by reporting the results of ordinary least squares regression analysis for six individual countries, embracing four continents. The countries are Australia, Canada, France, Germany, Japan, and The United Kingdom. These countries are long-standing members of the OECD and are regarded as major players in the international economic community. All of the reported regression results (summarized in Table 2) satisfy a set of econometric standards that are described in an accompanying box. Annual data are used throughout. The time span embraced varies from country to country, containing, overall, data from as early as 1953 and as late as 1995. The regression equations are bivariate (except for ARMA adjustment terms). Two forms of the model are estimated, one with no lag between RULC and unemployment (Panel A of Table 1) and the other with RULC lagged one year (Panel B).

The results reported in Table 2 provide powerful confirmation of the previously mentioned analysis for the United States. All regression coefficients for the RULC variable have the expected positive sign and are statistically significant at the 5 percent level or beyond (one-tailed tests of significance). In fact, all except the coefficient for The United Kingdom with no lag and Japan with a one period lag are significant at levels well beyond 1 percent. As an example of the explanatory power of the model, we present a diagram for France (Figure 10) similar to Figure 9 for the United States.

Data Sources

The data source for the information describing the values of real unit labor costs is: *National Accounts, Main Aggregates, Volume 1* (Paris, France: Statistics Directorate, Organisation for Economic Cooperation and Development, 1997).

The unemployment data are found in *Labour Force Statistics* (Paris, France: Statistics Directorate, Organisation for Economic Cooperation and Development, Annual Issues).

Table 2. Panel A: Empirical results for Unemployment Model, Six Countries, 1953-1995, Contemporaneous Values of Unemployment and Real Unit Labor Cost

Information	Canada	France	Germany	United Kingdom	Japan	Australia
Time Period	1953-95	1962-95	1962-95	1963-95	1963-95	1964-95
t-Statistic	7.89	11.51	7.88	1.92	9.79	5.23
ARMA	(0,3)	(0,3)	(0,3)	(1,2)	(1,3)	(0,2)
Adjusted R ²	0.829	0.908	0.839	0.931	0.860	0.653

The effect of lagging the value of the RULC variable one period is interesting. In most cases (four of six) this leads to an increase in the statistical significance of the coefficient associated with RULC, suggesting the presence of some type of lagged effect. It should be noted, though, that the coefficient values show relatively modest increases when moving from the unlagged to the lagged format. Thus, quantitatively, it appears that most of the impact of variations in real unit labor cost on unemployment are captured rather quickly.

Table 2. Panel B: Empirical Results for Unemployment Model, Six Countries, 1953-1995, Contemporaneous Value of Unemployment and Real Unit Labor Cost Lagged One Period

Information	Canada	France	Germany	United Kingdom	Japan	Australia
Time Period	1953-95	1962-95	1962-95	1963-95	1963-95	1964-95
t-Statistic	9.86	10.15	9.96	3.27	1.96	7.13
ARMA	(0,3)	(1,3)	(0,3)	(1,2)	(1,1)	(0,2)
Adjusted R ²	0.867	0.886	0.858	0.941	0.947	0.743

A More Generalized Approach

The individual country analysis sets the stage for a more generalized treatment of the relationship between RULC and unemployment. For this, we employ a pooled-cross-section estimating approach, using data for the 24 traditional OECD countries over the quarter century embracing the years 1971-

1995. All told, we have 592 observations for the values of RULC and unemployment. Our estimating procedure is a pure covariance method, which involves the inclusion of one-zero "dummy" variables for individual countries (referenced to The United Kingdom) and individual years (referenced to 1995). In the final version of the estimating equation, there are 48 estimating variables, RULC, 23 individual country dummies, and 24 individual year dummies. The results for the RULC variable are reported in Table 3 for various lag structures, ranging from no lag to a two-year lagged effect. The results are generally consistent with the individual country analysis, although a somewhat longer lag (at least one period) is indicated.

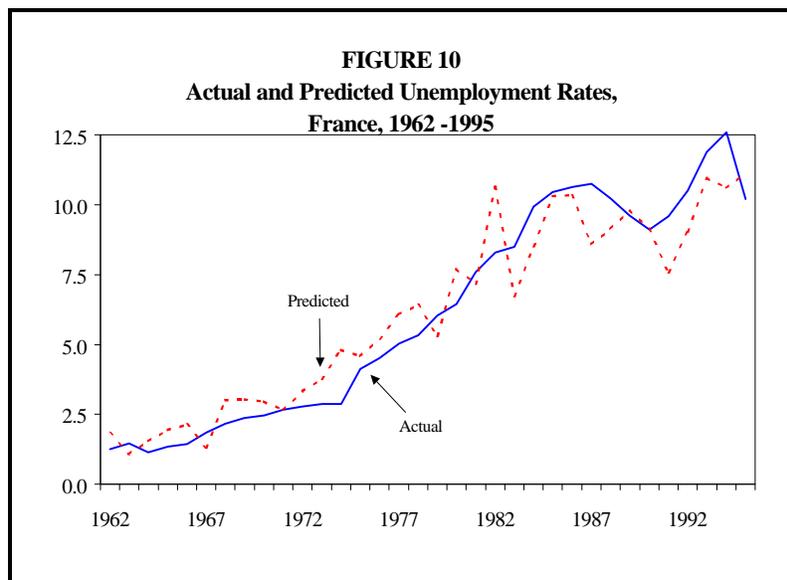
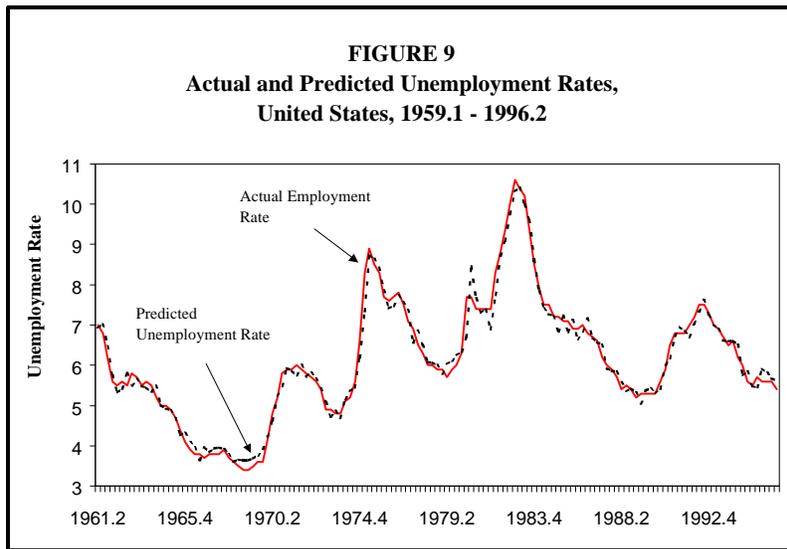


Table 3. Pooled Cross-Section Regression Results for Analysis of Impact of Real Unit Labor Cost on Unemployment. 24 OECD Countries, 1971-1995

Nature of Lag of Real Unit Labor Cost	t-Statistic for real Unit Labor Cost	Adjusted R ²
None	1.27	0.875
One Period	3.17	0.876
Two Periods	4.00	0.877

Additional Information: "Structural Drift" in Unemployment

A major advantage of the covariance pooled-cross-section estimation approach is that the coefficients of the individual year dummy variables provide useful information in their own right. For example, they show a pronounced upward drift in the typical unemployment rate of OECD countries, amounting to more than one-fifth of a percentage point per year. It is a steady increase. The simple correlation between the amount of unemployment drift and the passage of time is 0.91. The individual year-by-year coefficients are shown in Table 4. This time drift in unemployment is coincident with a substantial escalation of the burden of taxation and government spending in the OECD community during the quarter century under consideration. More about that shortly.

**Table 4. Cumulative Time Drift in Unemployment Rate,
23 OECD Countries, Individual Years, 1971-1995**

Year	Cumulative Time Drift	Year	Cumulative Time Drift
1971	0.00	1984	4.47
1972	1.34	1985	4.37
1973	1.62	1986	3.98
1974	1.60	1987	3.74
1975	1.93	1988	5.15
1976	1.79	1989	5.41
1977	2.05	1990	6.18
1978	2.91	1991	6.13
1979	3.87	1992	5.53
1980	4.79	1993	6.15
1981	4.93	1994	6.13
1982	4.87	1995	5.56
1983	4.76		

Does the rise in OECD unemployment signify the existence of an upward drift over time in the level of real unit labor costs in the international community? This possibility can be analyzed through the use of regression analysis that uses the individual year dummy variables to explain movements in RULC. The results of such analysis suggest an absence of any systematic time drift. What this indicates is that the RULC variable is stable over time but subject to cyclical fluctuations that generate unemployment cycles. This is exactly consistent with the quarterly data for the United States which show a trendless pattern of behavior in levels of RULC between the first quarter of 1959 and the second quarter of 1996.

The "Natural" Rate of Unemployment

Also of use are the coefficients of the individual country dummy variables. They tell us something about the "natural" (or normal) rate of unemployment in each country, after controlling for movements in RULC and any time drift in unemployment. However, the interpretation of them in the "natural" rate context is somewhat complex. They capture only a part of the natural rate phenomenon, namely, differences between unemployment rates among the individual countries. Another possibility is changes in the natural rate through time, suggested by the time drift observed in Table 1. We have identified both intercountry differences and an intertemporal upward movement in unemployment. The intercountry differences imply higher (or lower) unemployment rates than the long-term (overall) average for the countries in the sample. That value is 6.72 percent. Therefore, for ease of interpretation, we have transformed the country dummy coefficients to reference them to that average. The results are shown in Table 5. Adding the value of these coefficients to 6.72 percent provides one estimate of the natural unemployment rate when overall unemployment is equal to the long-term average.

Table 5. Estimates of Natural Rate of Unemployment Compared to Average OECD Unemployment Rate, 24 OECD Countries, 1971-1995

Country	Difference Between Natural Rate and Mean OECD Natural Rate of Unemployment	Country	Difference Between Natural Rate and Mean OECD Natural Rate of Unemployment
Austria	-3.91	Norway	-3.14
Belgium	2.20	Portugal	-0.28
Denmark	0.83	Spain	9.14
Finland	1.36	Sweden	-3.28
France	1.75	Switzerland	-5.48
Germany	-0.66	Turkey	2.21
Greece	0.42	United Kingdom	1.30
Iceland	-4.70	United States	-0.15
Ireland	5.97	Canada	2.33
Italy	3.19	Japan	-4.20
Luxembourg	-5.39	Australia	0.82
Netherlands	0.78	New Zealand	-1.43

What about the time drift dimension, though? Introducing it involves referencing the coefficients of the individual year dummy variables to the long-term average rate of unemployment of 6.72 percent. Fortunately, the average unemployment rate for 1979 in the data set is 6.71 percent, almost exactly equal to the overall sample average. Thus, we can reference the coefficients for the individual years to 1979, producing the set of coefficients shown in Table 6. Adding the values of one of these coefficients to 6.72 plus an individual country's dummy coefficient produces estimates of a nation's natural rate of unemployment for that year.

Table 6. Cumulative Time Drift in Unemployment Rate, 23 OECD Countries, Individual Years, 1971-1995, referenced to 1979

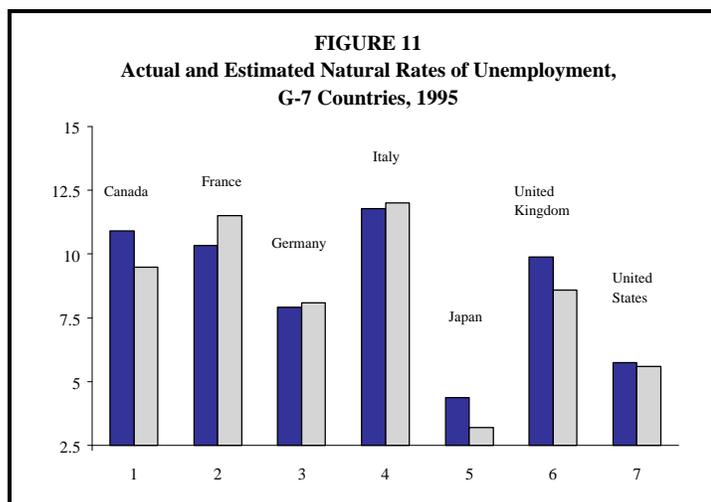
Year	Cumulative Time Drift	Year	Cumulative Time Drift
1971	-3.94	1984	0.80
1972	-2.65	1985	0.70
1973	-2.31	1986	0.30
1974	-2.24	1987	0.05
1975	-1.87	1988	1.46
1976	-2.01	1989	1.70
1977	-1.79	1990	2.54
1978	-0.91	1991	2.51
1979	0.00	1992	1.73
1980	0.93	1993	2.51
1981	1.20	1994	2.51
1982	1.14	1995	1.86
1983	1.05		

This approach to estimating individual country natural rates of unemployment is viable as long as the separate countries have rates of time drift in unemployment similar to the overall drift. Our particular focus at this point is on the unemployment situation in the major OECD nations, specifically the group known as the G-7 countries. An examination of the pattern of time drift in these countries (refer again to Table 1) indicates that six of them, all but the United States, have statistically significant (at least at the 10 percent level) *positive* movements in unemployment. In the case of the United States, the time drift is also statistically significant, but *negative*.

To deal with this difficulty, we re-estimated the pooled-cross-section model, excluding the United States. The statistical results differ only to a negligible degree. Using these alternative results, we applied the previously described technique to estimate the natural unemployment rate for 1995

for Canada, France, Germany, Italy, Japan, and The United Kingdom. For the United States, we used basically the same approach, except that we applied the observed *negative* time drift factor. The results are shown in Table 7. "Why," it might be asked, "did we choose the year 1995 to conduct this exercise?" The answer is that it appears that during 1995 the G-7 countries had unemployment rates very close to their natural levels. Figure 11 compares our estimates of their natural unemployment rates with the actual unemployment rates for 1995. The correspondence between them is striking.

Collectively, the natural rates of unemployment shown in Table 7 indicate that the United States has a relatively low "natural" rate of unemployment. In the context of the countries that comprise the G-7 group, its performance is better than all others, except Japan. The intriguing thing about the pattern of the G-7 natural unemployment rates is the tendency for high average tax rate countries to have high natural rates of unemployment. For example, among the G-7 countries, Italy has the highest level of both taxes as a percentage of gross domestic product and natural rate of unemployment. Conversely, Japan has the lowest level for both of these. This pattern holds on a general basis. A simple bivariate regression model shows a statistically significant relationship between the natural rate of unemployment and official OECD estimates of tax burden, where tax burden is expressed as a percentage of national output. For every additional one percent of national output absorbed by taxes, the natural rate of unemployment rises by three-tenths of a percentage point. Put differently, the model predicts that if the major European nations lowered their aggregated tax burden by 10 percentage points (as a proportion of GDP), the natural rate of unemployment would decline by almost precisely three percentage points (e.g., from nine to six percent).



**Table 7. Estimated Natural Unemployment Rates, Actual Unemployment Rates,
and Tax Burden as Percent of GDP, G-7 Nations, 1995**

Country	Natural Rate of Unemployment	Actual Rate of Unemployment	Tax Burden as Percent of GDP
Canada	10.91	9.50	35.8 %
France	10.33	11.50	43.7 %

Table 7. Estimated Natural Unemployment Rates, Actual Unemployment Rates, and Tax Burden as Percent of GDP, G-7 Nations, 1995

Germany	7.92	8.10	39.0 %
Italy	11.77	12.00	47.8 %
Japan	4.38	3.20	29.1 %
United Kingdom	9.88	8.60	33.6 %
United States	5.75	5.60	29.7 %

Source: Organisation for Economic Cooperation and Development and authors' calculations.

CONCLUSIONS

Two major findings emerge from this analysis of the recent international experience with unemployment. First, there is the matter of the systematic relationship between cyclical variations in unemployment and real unit labor cost. Anything that raises, even temporarily, the cost of the labor input per unit of output leads to increased unemployment. The significant dimension of real unit labor cost is the productivity of the labor input. Increases in labor productivity do two things. They increase levels of employment and/or generate higher real wage rates for workers.

More important than the explanation of cyclical swings in unemployment is the analysis of the intertemporal behavior of the normal, or "natural," rate of unemployment within the OECD countries, particularly among the important group of nations known as the G-7. With the sole exception of the United States, these countries show significant positive time trends in their unemployment rates, trends that are not explained by a systematic rise in real unit labor cost. The result has been a rise in the natural rate of unemployment in the non-United States areas of between five and six percentage points. At the same time, the natural rate in the United States has been falling. The intriguing aspect of these patterns is the tendency of the natural rate of unemployment to be higher in countries with a greater tax burden. Taxes impose deadweight burdens on an economy.² But this is only part of the story. Tax revenues also are the fuel that drives government spending and, as a general proposition, current levels of government spending are in a range in which they exert a significant drag on national output. This has been demonstrated in several earlier studies conducted under the auspices of the Joint Economic Committee dealing with the United States and the world in general.³

These findings are very germane to the current national debate concerning the disposition of the now emerging Federal budget surpluses. A budget surplus is an invitation to enhance government spending with its consequent negative effects on the vitality of the American economy. One way to avoid the temptation to expand Federal government spending is to return the surplus to the tax-paying public in the form of a tax reduction. This would have a two-edged beneficial effect. On the one hand, it would directly increase private sector disposable income, while increasing output and income at the same time by expanding job opportunities.

The observed positive correlation between tax burdens and unemployment probably also reflects a broader problem arising from relatively large governmental involvement in the economy, namely the rigidity of labor markets. With the rapid growth in the welfare states of Europe, for example, have come new regulations interfering in the normal bargaining relationship between employees and employers: laws limiting the dismissal of workers, statutes requiring lengthy vacations and frequent holidays, rules setting minimum wages and maximum hours, and so forth. These have contributed to the rising relative cost of labor and thus importantly explain the observed higher unemployment outside the United States.

Endnotes

1. Richard Vedder and Lowell Gallaway, *Out of Work: Unemployment and Government in Twentieth Century America* (New York: New York University Press, 1997).
2. The definitive study in this regard is Charles L. Ballard, John B. Shoven, and John Whalley, "General Equilibrium Computations of the Marginal-Welfare Costs of Taxes in the United States," *American Economic Review*, March 1985. They find that the marginal excess burden (deadweight loss) associated with taxation falls in the range of 20 to 50 cents per dollar of taxation.
3. There are several studies confirming the negative impact of government spending that exceeds a certain critical level. See, James Gwartney, Robert Lawson, and Randall Holcombe, *Functions of Government and Economic Growth* (Washington, D.C.: Joint Economic Committee, United States Congress, April 1998), Gerald Scully, *What is the Optimal Size of Government?* (Dallas, TX: National Center for Policy Analysis, 1994); and a series of five studies done by us for the Joint Economic Committee, beginning with *The Impact of the Welfare State on the American Economy* (Washington, D. C.: Joint Economic Committee, December 1995). The Scully study deals specifically with the magnitude of taxation. An additional work that is germane to this issue is Robert J. Barro *Determinants of Economic Growth: A Cross-Country Empirical Study* (Boston: MIT Press, 1998).