

Inequality and Unemployment in Europe: The American Cure

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Abstract

In this paper we show that inequality and unemployment are related *positively* across the European continent, within countries, between countries and through time. This contradicts the often-repeated view that unemployment in Europe is attributable to rigid wage structures, high minimum wages and generous social welfare systems. In fact, countries that possess the low inequality such systems produce experience less unemployment than those that do not. Moreover, large inter-country inequalities across Europe aggravate the continental unemployment problem. There is no paradox in low American unemployment. It stems in part from that country's continent-wide programs of redistribution, including the Social Security System, the Earned Income Tax Credit, the federal minimum wage, and a uniform regime of monetary policy geared toward full employment, all of which reduce inter-regional inequality and all of which we recommend for adoption by the European Union.

1. Introduction

What is the relationship between inequality and unemployment? This question is perhaps the most important issue in the political economy of Europe, and it has relevance for other regions with rapidly developing transnational ties, including the United States and the North American region.

One view holds that high unemployment rates in Europe are due to that continent's generous social welfare systems and "rigid" wage structures, or in other words to the equality characteristic of social democracy.¹ In contrast, low unemployment in the United States is credited to that country's "flexibility" and therefore its willingness to tolerate high inequality in wages and incomes.

This view is inconsistent with the facts. It implies, for instance, that inequality in the United States must be higher than in "Europe." But, while this is generally true for comparisons between the United States and individual European countries, such comparisons ignore differences in income levels between the countries of Europe. When these are accounted for, it is not obvious that the United States is in fact less equal. Further, this view implies that in the United States unemployment should have fallen when inequality rose, which it did in the 1980s, and *vice versa* in the 1990s. But on the contrary, wage rate inequality in manufacturing has risen and fallen in step with changes in unemployment in America, year to year and even month to month, over virtually the entire century.² The same is true for Europe in recent years.

Across Europe, the relationship between income, inequality and unemployment also fails to fit the conventional view. Unemployment has always been higher where inequality was greater in Europe, and now, as Europe has integrated, a corresponding transnational pattern has emerged. Twenty-five years ago, unemployment across countries in Europe was largely uncorrelated with national income, but in the late 1970s a strong and systematic negative relationship emerged which has been sustained ever since.³ Today, national unemployment rates are systematically lower in the richer and more equal countries of Europe where wages are high and social welfare systems are strong. Meanwhile it is the lower-income countries with the weakest social welfare

¹ In an important paper, Nickell (1997) examined particular features of European labor markets and reaches conclusions broadly similar to ours: institutions that promote equality are not generally associated with higher rates of unemployment across European countries.

² Galbraith's wage rate inequality estimates for the U.S. (1998a) are revised in Galbraith and Garza-Cantu (1999); monthly measures are now available at <http://utip.gov.utexas.edu/>.

³ As of 1992, the correlation between income level and unemployment across 14 countries had risen to <minus> 0.75. Correlations between measures of internal inequality and unemployment rates peaked in the mid-1980s, declining somewhat later on, as high unemployment hit the Nordic countries, especially Sweden and Finland.

systems and the most inequality, such as Spain, where unemployment is highest in today's Europe.⁴

We suggest a simple reason why this might be so.⁵ Regions with low average incomes are marked by the presence of large numbers of relatively impoverished people in low productivity occupations, and thus relatively high inequality across occupations, industries, and sectors. Many such people seek any available exit from their status. They seek alternatives, even if they recognize that the chances *a priori* of finding a substantially better job are low. In other words, so long as appealing alternatives to low-income employment exist, even (indeed, especially) when they are not widely accessible, people form up into the queues of the unemployed.

This does not happen to nearly the same extent in high income countries. Why not? The lures of the truly high wage jobs are even greater in such countries. Unemployment insurance and other safety nets for the unemployed are stronger in rich countries than in poor ones. Conventional thinking focuses on such measures of social welfare generosity as benefit replacement rates, and predicts higher unemployment in more generous countries. And yet, it does not happen: such invitations to unemployment are not, in fact, accepted to the same degree.

Well then, do the richer countries of Europe perhaps lack the low-productivity jobs from which people seek desperately to exit? On the contrary: high-wage countries are characterized by a diverse cross-section of industries and services, including many that are low-productivity and that must compete with low-wage imports and with immigrants.

But: *high-income countries subsidize and support the pay of low-productivity people.* They provide high minimum wages, markets for farm produce, jobs in vast public bureaucracies, free health care and higher education. As a result, low productivity people stay put. They do not migrate in large numbers toward the high-productivity sectors, in the pursuit of higher pay. And this is the secret of fuller employment in richer countries.

This analysis suggests that the real and relevant rigidities of Europe are entirely different from those proposed by the conventional view. *Indeed they have nothing to do with supposed inflexibility of relative wages inside any particular country.* Quite to the contrary: increasing

⁴ Also, contrary to an implication of the conventional view unemployment in Europe is also not generally higher for low-skilled workers than for those with higher skills; it is instead shared widely across skill levels in the high unemployment nations. See Howell, Duncan and Harrison, 1998, for details.

⁵ The "Wage Curve" analysis of Blanchflower and Oswald (1994) provides striking evidence that within any *given* economy, regions with high average incomes have lower unemployment than regions with low average incomes. This suggests that barriers to mobility are not merely national; however national and language barriers surely add powerfully to those based on family ties, housing supply, and so on.

relative wage differentials would only cause even more low-productivity people to abandon their present employments in favor of the job queue and the dole.

The relevant rigidities lie instead in rigid thinking on the part of Europe's central authorities in two respects. First, the latter are unable, or unwilling, to make the vast income transfers that would be required to make rural or service-sector or even civil service life in Spain as attractive as it is in Sweden. Second, they have been unwilling to foster the development of macro-economic policies that can effectively build Europe's peripheral economies through national programs of full employment.

Indeed, European policy is designed to work in just the opposite direction, to restrict the autonomy of both monetary and fiscal policies and to impede the achievement of full employment on the national scale. Meanwhile, barriers to migration and resettlement obstruct the citizens of the European periphery from taking full advantage of the more generous social welfare systems to their North. This concentrates unemployment in Spain, Italy and Greece and reduces the pressure on wealthier countries in Europe to pursue full employment policies.

This view has checkable implications. It implies, for instance, that unemployment is negatively associated with income levels between countries and positively with inequality within them. Lower incomes and more inequality should mean more unemployment. And as unemployment rose while European economic integration proceeded, it should be true that the rise in unemployment has been sharper in the lower-income, high inequality countries than in the higher-income, egalitarian countries.

The facts line up impressively with these predictions. Unemployment has long been higher in the poorer and more unequal countries of Europe. As overall unemployment has grown, the rise has been systematically greater in lower-income countries. The main exception is Portugal, which has low average income but also low inequality -- and high emigration. High-wage employment for Portuguese occurs, it would appear, mainly outside the country.

We conclude that the true American advantage is not inequality, which by our measures is *lower* than that across the whole of Europe, but America's national policy means for income redistribution and the pursuit of full employment, and perhaps the pressure for full employment brought to bear by a mobile population on the richer regions. Indeed, one can argue that as compared with Europe, the United States may be the true social democracy these days, a social democracy founded on liberal access to credit, on a national Social Security system, and since 1994 on a rapidly expanding Earned Income Tax Credit that has bolstered real earnings of lower income Americans and may therefore have played a critical role in lowering unemployment.

Europe therefore faces three choices. One of them is impossible, a second is unacceptable, and the third is necessary. Europe could, in principle but not in practice, restore national means for the pursuit of full employment, in the form of independent monetary, fiscal and trade policies, alongside capital controls. Or, it could break down its national and regional

enclaves, establishing a unified labor market from the Baltic to the Algarve, so that the poor populations relocate to the rich countries, like Mississippi's blacks to Chicago. We do not think this would be well-received.

And if not this, then Europe must establish, on a continental and international scale, the kind of social welfare transfer and employment-subsidy mechanisms that have heretofore existed only within the smallest, richest, and most resolutely socialist nations of the continent -- but that are entirely routine in the United States.

In Section 2, we present a measure of inequality in manufacturing earnings within the countries of Europe, 1970 to 1992, computed from the Structural Analysis (STAN) database of the OECD. Compared to the conventional measures of income inequality maintained by the World Bank, these measures are plainly superior. Using them, we show that the cross country correlation between industrial earnings inequality and unemployment is consistently positive in every year from 1970 to 1992. So, even more strongly, is the correlation between unemployment and the ratio of average manufacturing wages to per capita GDP. As that ratio rose in every country, so too did unemployment, while across countries in every year a larger gap was also associated with higher unemployment.

In Section 3, we present measures of country-wide average income levels -- per capita GDP -- as compared to rates of unemployment in Europe. The rise in unemployment in Europe in the 1980s and 1990s was tightly linked to differences of average income across countries: less in richer countries, more in poorer ones. At the same time, there has been modest *convergence* in per capita income levels across countries. Thus, rising unemployment has not been the cause of increasing dispersion in income. Rather, pre-existing differences in income levels determined the distribution of rising unemployment.

In Section 4, we examine the structures of industrial employment in Europe, and their relation to income and inequality. We show that the high income, low-inequality countries of Europe are not generally those that specialize in particular industries, for instance the advanced sectors. Rather, high income countries tend to have more diverse industrial structures than lower income countries, and those high income countries that are specialized, for instance in oil and natural gas, tend to have low manufacturing shares in total employment. Low inequality in high income countries is therefore not generally a question of specialization in a narrow class of high productivity goods, but rather of egalitarian pay structures across high and low productivity sectors, both of which rich countries possess in abundance.

Finally, in Section 5 we offer a measures of industrial earnings inequality across the whole of Europe as compared to the United States, taking account of differences between industries and between countries. Section 6 presents conclusions and policy recommendations.

2. Inequality and Unemployment in European Countries

Appendix 1 presents measures of inequality in the industrial earnings structures for 14 countries of Europe, computed from the Structural Analysis data base of the OECD, using the between-group component of Theil's T statistic (TN hereafter). Galbraith (1998b) has provided time-series analysis of this data set, showing *inter alia* that when one controls for changes in employment structure, changes in wage dispersion vary positively with changes in unemployment. Over time, rising (declining) inequality and rising (declining) unemployment tend to go hand in hand.

But what about the cross-sectional properties of this data? We have been reluctant to advance cross-country comparisons of the levels of a TN statistic, for two reasons. First, the (much larger) within- category component of inequality is unknown. Second, while one may reasonably suppose that the between-group component of Theil's T estimated on industrial earnings co-varies through time with the larger income distribution, there is no strong reason to suspect that *differences* in levels of inequality observed within manufacturing in Europe are tightly correlated with inequalities outside of manufacturing or between manufacturing and the non-manufacturing sector. Thus, differences in inequality in manufacturing may not be representative of the whole income distribution.

Still, everything must be considered in light of alternatives. The World Bank has provided a data set that purports to measure inequalities of household income across countries, using the Gini coefficient, providing broad measures that are comparable between countries. A ranking of this data for Europe, using the nearest available dates where the exact year was not covered in the World Bank data set, is given as Table 1, for 1970 and 1992. According to this data, in 1970 the UK was the lowest inequality country in Europe, followed by Sweden, Belgium and the Netherlands; the highest inequality countries at this time being, in ascending order, Spain, Norway, Portugal, Italy and France. In 1992, by the same data set, the ranking has changed drastically. Now Spain is the lowest inequality country (!), followed by Finland, Belgium and the Netherlands, and then Italy, which is now purportedly less unequal than either Germany or the UK. The UK, in turn, is said to be less unequal than Sweden, Denmark or Norway, and the highest inequality country in Europe is now, supposedly, Portugal.

Table 1 about here.

Table 2 provides a contrasting ranking of the between-group components of a Theil statistic computed over industrial earnings data. The low inequality countries in 1970 are Norway, Finland, Denmark, Germany, Netherlands, and the UK. In 1992, the low rankings are Norway, Denmark, Finland, Netherlands, Sweden, UK, and Germany; the high-inequality countries are Greece, Belgium, Austria, and Italy in 1970 (data for Spain and Portugal not being available), and Greece, Portugal, France, Spain and Italy in 1992. These rankings are much more consistent over time than the Gini rankings published by the World Bank, and we submit they are

also much more sensible.⁶

Table 2 about here.

The issue is important, for one can easily correlate inequality and unemployment across countries for each year from 1970 to 1992. Using the World Bank data set, one arrives at the result that inequality and unemployment were positively correlated back in 1970, but the correlation declines throughout the period and turns negative in 1976, falling thereafter to reach <minus> 0.66 in 1992. Pleasing though that result might be to a partisan of the “wage rigidity” hypothesis, it depends mainly on soaring unemployment in Spain, which the Bank ranks preposterously as the most egalitarian country in Europe, and in undeniably egalitarian Finland, which suffered a severe recession following a property bubble and the collapse of its Soviet markets after 1991.

When one correlates unemployment and industrial earnings inequality across European countries using the Theil statistic, the correlation coefficients are always *positive*. Over all years the average of correlation coefficients is 0.37 with a standard deviation of 0.20. The correlation does decline in 1992 as Finnish unemployment soars, but due to exceptional conditions not driven by events inside the OECD. Figure 1 presents a time-series graphic of the cross-country correlation coefficient between inequality and unemployment in Europe.⁷

Figure 1 about here.

Next, we examine a rough measure of inequality between manufacturing sectors and the rest of the economy. This is the ratio of average manufacturing wages to gross domestic product per capita. This measure is well correlated to the within-manufacturing Theil statistic.⁸

⁶ One may also compare our ranking to that of the Luxembourg Income Studies, which, taking the available years closest to 1992, is Finland, Sweden, Belgium, Norway, Denmark, Germany, Netherlands, France, Spain, Italy, United Kingdom. The LIS rankings are closer to ours than they are to the World Bank rankings, even though ours are based on industrial earnings while both the LIS and the World Bank purport to measure inequality of household income. The Bank’s data set is the odd one out in this triangle, and our inequality measures have two additional advantages: more countries covered, and regular annual observations.

⁷ We have annual observations for both inequality and unemployment from 1970 through 1992 on twelve European countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, and the UK.

⁸ This is perhaps not surprising in light of the good correspondence between the Theil measures and the Luxembourg Gini coefficients. But more generally, it illustrates the unitary character of income distributions. When inequality is growing between low and high wage sectors within manufacturing, the same is almost certain to be true of inequality between

Countries with high inequality inside their manufacturing sectors also tend to be more unequal as between manufacturing and everything else. The correlation coefficient across fourteen countries is positive in every year, and averages .60 across all years from 1973 to 1992.

Across countries, the ratio of manufacturing wages to per capita GDP is positively correlated with unemployment in every single year except the last (again, mainly due to the depression in Finland). Figure 2 illustrates. Within countries through time, the movement of this ratio is a good predictor of the movement of the unemployment rate: the through-time correlation coefficients are positive for twelve of fourteen countries (the exceptions being Italy and Spain), and are above 0.7 in the cases of Austria, Belgium, Finland, Greece, the Netherlands and the UK.

Figure 2 about here.

The evidence is, in short, consistent once proper measurements are taken. Indeed it is overwhelming. Unemployment and inequality are related *positively*. Countries that are more unequal tend to suffer higher rates of unemployment. Though this defies the conventional view, it is in line with our conception of the unemployment process, as driven largely by the pay gap between low- and high-productivity employments, or in other words by inequality itself. This view is also consistent with the time-series evidence for both Europe and the United States.

The time-series and cross-section relationships between inequality and unemployment are evidence that the notion of a trade-off between the two social goals is incorrect. Within any given country, higher inequality and higher unemployment go hand in hand. Our suggested reason is that inequality reduces the subjective opportunity cost of leaving a low-productivity job. But since the occupants of low-productivity employments are numerous while the numbers of high-productivity, high-wage jobs are necessarily few, especially in poor countries, many seeking such jobs will not find them, perhaps not for a very long time. Thus unemployment bred of inequality can persist. So long as wages rest on productivity differentials, and exactly contrary to the standard intuition, labor markets do not clear.

3. Unemployment and Income Differentials Across Countries.

Europe is not a country; it is a multi-country region. It is a region in the course of a deep process of economic integration, with expanding intra-regional trade, a single internal market, common fiscal policies, and now a common money. What it lacks, compared to the United States, is only a common set of social policies⁹ and a single financial or credit market -- precisely the devices that work to reduce inequality at the continental scale.

manufacturing on average and low-wage agriculture or services, on average.

⁹ We thank Waltraud Schelkle for focusing our attention on this point, and acknowledge her important contribution to our thinking on this subject.

In the early 1970s and for many years before that, measured unemployment in Europe was everywhere quite low. It was, at that time, only slightly correlated with income levels across countries. In the high income countries, full employment, social democracy and the welfare state prevailed. The low income countries were substantially peasant societies, often with comparatively recent fascist governments, as in Spain, Portugal, Greece under the colonels, and also Italy from a generation before. In these countries, much of the rural population had not become intranationally mobile. There were few industrial jobs and few cushions for those who might seek but not obtain them. Except for emigrants and exiles, people stayed on the farm.

Since the early 1970s, Europe has experienced democratization in the poor countries, and yet also rising unemployment. In Spain, the extreme case, unemployment rose from 3 to 19 percent in the decade of Franco's death and has stayed near those levels ever since. In 1993 Italy, Belgium, France, the UK, Denmark and Finland all had unemployment rates above 10 percent. Only socialist Austria (the country with the sharpest decline in manufacturing earnings inequality in Europe over the previous twenty-two years, by our measures), was near full employment. Still, some countries were doing better than others: unemployment in Norway was just 6 percent, in the Netherlands 6.2 percent, in Sweden 8.2 percent, and in Germany 8.8 percent.

When one correlates European income levels and unemployment rates across countries and over time, a key fact emerges: unemployment in Europe has risen almost strictly in inverse relation to per capita GDP. Today, high income countries in Europe systematically have less unemployment than low income countries. Figure 3 illustrates these correlations.

Figure 3 about here.

What is going on? Where average per capita GDP is high, either of two possible situations may prevail. It may be that most people are employed in moderately high-productivity employments and are paid according to their productivities, and so by their individual and collective productivities they raise average national income. Or, in the alternative, a fairly small number of very highly productive income earners, including profit earners, may provide truly massive subsidies to the living standards of low-productivity workers. In this way, high average incomes are achieved in an equal society, by raising the average pay of low-productivity workers far beyond their average productivities.

In the first case, low unemployment would be no mystery to anyone. The free markets of textbook theory would indeed allocate resources and remuneration in just this way; firms would arise to demand the services of such high-productivity employees. Still, one might wonder how the rich citizens of a country that specialized in, say, oil refining would satisfy their tastes for Thai cooking and acupuncture without allowing immigrants to provide these services or their own citizens to learn them. There is the difficulty, too, that if all the high-productivity jobs were in one country, all the low-productivity jobs would have to be in another. In that case, since low-productivity jobs are necessarily more numerous, it would be difficult to understand why the low-productivity, low-income country would suffer higher rates of unemployment.

The second case is, therefore, more plausible, despite being at variance with the conventional view of many economists. Countries with high-productivity industries effectively redistribute income to low-productivity workers, maintaining egalitarian social structures and fuller employment, in spite of radical differences between pay and productivity levels. In this case, the opportunity cost of low-productivity employment falls, and people stay where they are, growing artichokes in Brittany, crofting in Norway, or raising pigs in the high passes of the Swiss Alps.¹⁰

But can we demonstrate that the second case is, in fact, the pertinent one for Europe?

4. Income Levels and the Structure of Employment.

Why are rich countries rich? Are they rich because they have a disproportionate share of high productivity jobs, because they squeeze out the low-productivity activities and either rely on imports of these goods and services or do without? Or are they rich because high productivity in some sectors (and perhaps also profit income from abroad) permits them to provide high living standards to both high-productivity and low-productivity workers, as well as direct employment, in many cases, to the latter?

There are many ways of answering this question; we will concentrate on just two that can be managed from our data sets. The first is to ask, do high income countries have high or low shares of manufacturing in total employment? Manufacturing wages tend to be high, relative at least to services and agriculture in most countries. Countries with high manufacturing shares in total employment might therefore be thought of as “high-productivity” countries with correspondingly high incomes. But this is not in fact the case for today’s Europe. It is no longer true, as a rule, that higher-income countries have more manufacturing in their employment mix.

Figure 4 illustrates the evolution of the cross-country correlation between the share of manufacturing in total employment and per capita GDP. In the early 1970s this relationship was positive and quite robust. But in 1975 the relationship began to deteriorate, and by 1981 there was no longer any significant relationship between shares of manufacturing and per capita GDP in Europe. In the late 1980s, the correlation turned negative, and it may have become significantly so in the last year of the data at hand. Where once the divide between high and low wage occupations was between manufacturing and agriculture, with poorer countries predominantly rural, today non-manufacturing occupations -- including public employment, of course -- are just as prevalent in rich countries as in poorer ones.

Figure 4 about here.

¹⁰ It is worth noting that by efficient provision of public services on a capitation basis, very high living standards can be achieved at fairly low cost, without sacrificing the efficiency consideration that marginal productivity be associated with *marginal* pay. Typically, analyses that treat wages as the only source of income ignore this fact

It remains possible, of course, that the high-income countries have a particularly rich share of the highest productivity *manufacturing* sectors. Do such countries get rich by squeezing out textiles, and food processing, and by concentrating on computers and aircraft, alongside, perhaps, a particularly rich share of high-productivity occupations in the services sectors (such as banking)? This is a somewhat more difficult question, since many patterns of industrial specialization are possible in a multi-country regional economy. The theory of comparative advantage certainly predicts such specialization: here a chemical country, there aerospace, computers and machine tools somewhere else.

Sorting out these patterns to arrive at a single index of specialization and a ranking of productivities is not straightforward. But, consider the following institutional fact. The International Standard Industrial Classifications are designed by the OECD to accommodate the industrial structures of the large, advanced, countries. It is they, after all, that dominate the most advanced sectors, such as aerospace and pharmaceuticals. Thus the ISIC codes, simply because they try to be informative when applied to such countries, are designed to separate their economies into sectors of approximately comparable size. To do otherwise -- to design a classification scheme based on the economy of Portugal, say -- might lead to separate major categories for wine and port, for shoes and handbags, for cut glass and blown glass, with perhaps just one catchall of "other manufacturing" for aircraft, computers, automobiles, and so on. These sectors are of minor importance in Portugal, but to apply such a categorization to Germany would not be useful.

A Herfindahl index of employment shares by ISIC category¹¹ thus provides a simple measure of industrial specialization, relative to the industrial structure of the most advanced countries. Such indices are reported for European countries in Table 3. The most industrially diversified countries in Europe in 1992 and throughout our period were indeed the larger advanced economies: the UK, Germany and France. And indeed there is a strong negative correlation between specialization and per capita GDP: nearly <minus> 0.8 for every year we observe, as Figure 5 illustrates

Table 3 and Figure 5 here.

There are a few moderately specialized rich countries. Norway is an example. Denmark is the most specialized rich country in Europe. Sweden, though diversified, is less so in 1992 than in 1970. And as these examples indicate, to be specialized is not necessarily inegalitarian; northern Europe holds several small, specialized, low-inequality countries, in which large transfers flow from highly productive manufacturing, extractive industries and niche agriculture to the rest of society.

But being highly specialized rarely goes with being rich. Industrial specialization usually means a high share of textiles, food processing and the like in manufacturing employment; this is

¹¹ The Herfindahl index, a well-known index of concentration, is simply the sum of squared shares. Higher values indicate greater specialization.

true in all cases of very high specialization in Europe. And such specialization is strongly associated with lower per capita income. Moreover, where high specialization and high inequality go together, unemployment is epidemic. In these cases, the manufacturing sectors are not diverse enough, or rich enough, or willing, or technically able, to support the low productivity sectors through taxes, transfers and subsidies. Greece and Italy are among the examples in Europe.

The case of Portugal, finally, is an exception that proves the rule. Portugal has the most specialized manufacturing economy in Europe. Most of that is low-wage: food processing, textiles, leather and glass, and as a result Portugal has one of Europe's lowest per capita incomes. But Portugal is also a low-inequality country, as between manufacturing and everything else. In 1992 the gap between wages in manufacturing on average and per capita GDP in Portugal was one of the lowest in Europe, having fallen sharply since the Revolution in 1974. The consequence is comparatively low unemployment. Or one should say, low *internal* unemployment. People in Portugal see little advantage in queuing for the available Portuguese manufacturing jobs. Should they wish higher incomes, as many do, they leave the country. Paris is the second largest Portuguese city, after Lisbon.

In sum, rich European countries that have diversified manufacturing and comparative equality between manufacturing and the rest of the economy tend to have lower unemployment. Specialized, lower income countries with weaker transfer mechanisms have done much worse (the cases of Italy and Greece), until one comes down to Portugal, where emigration emerges as a major outlet for frustrated aspirations that elsewhere appear as unemployment.

5. Europe and the United States

We now turn to a consideration of inequality in Europe-as-a-whole, as compared to that in the United States. It is true, of course, that by commonly accepted measures of household income the United States has higher inequality than any individual country in Europe. Taking the nearest available year, the Luxembourg Income Studies report Gini coefficients for the US in 1992 of 35.5, compared to 34.3 for the United Kingdom and 31.8 for Italy; the LIS series goes to a low of 22 for Finland.

But no one, so far as we know, has as yet attempted to compute a Gini coefficient over the population of Europe as a whole. And the intra-European-country inequality numbers ignore very large inter-country differences of income levels. Average income in Spain, adjusted for purchasing power parities, is only about 60 percent of that in Germany. This is much larger than average differentials across comparably large regions of the United States: average income in Texas, at roughly comparable economic and geographical extremes, is fully 85 percent of that in New York. And income differentials between Texas and New York are already fully accounted for in measures

of inequality for the United States.¹²

We have computed a pan-European, cross-industries, between-groups component of the Theil statistic for European manufacturing earnings, which is presented in Figure 6. The figure shows that this measure of pan-European inequality increased through the middle 1980s, alongside dramatically increasing unemployment at that time. In the stagnation of the 1990s inequality in Europe has remained unchanged.

Figure 6 about here.

Given the decomposability of inequality into within and between country elements, an easy route to inequality reduction in Europe once lay through increases in the relative real incomes of the poorer countries. This could be accomplished, in principle, by macroeconomic means, specifically higher inflation rates compared to exchange rate depreciations, or real currency appreciations. But, alas for Europe, such cross country improvements are now precluded. Convergence policies leading toward the Euro have forced equalization of inflation rates while also freezing currency values. Henceforward, convergence of incomes across Europe will have to depend on actual convergence of Euro-denominated wages, and this will no doubt prove to be a highly contentious process once people realize what they are in for.

Finally, we can extend our measures of inequality to offer a preliminary comparison of levels of pay inequalities across Europe as a whole as compared to those in the United States. Recall that, as Table 2 illustrated, a TNcomputed across consistently classified industrial groups provides inequality rankings for Europe that strikingly consistent with common knowledge and with the sophisticated measurements of the Luxembourg Income Studies. Suppose that the same were true for Europe as a whole, in comparison to the United States?

Table 3 provides estimates based on this supposition. As always, the data are drawn from the STAN, which does provide consistent industrial classifications. As the table shows, cross-industry earnings inequality in the United States is approximately the same as the within-countries component of a similar measure of inequality for the European members of the OECD. But this ignores the between-countries component of European differences, which are about half again as large. When the between-countries component is added in to assess manufacturing earnings inequality overall, European inequality emerges as substantially higher than in the United States.

Table 3 about here.

We offer these estimates with some reservations. It is possible, and many certainly believe, that the within-industries component of American earnings inequality, which we do not observe, must be larger than similar differentials in Europe. This might be true. But then, it might not be. If

¹² Comparable differentials between the rich and poorest regions of Europe, say Germany and Portugal, are also much greater than between, say, New York and West Virginia.

it were true, then (because industrial categorizations are essentially arbitrary classification conventions), it would also be probable that the between-industries component of U.S. earnings inequality would have to be larger than in Europe. And it is not. In any event, the hidden within-industries component of U.S. earnings inequality would have to be fifty percent larger than its European counterpart to offset the between countries component of European inequalities, and we think this is unlikely.

It remains true, of course, that inequality within the United States remains high by longer historical standards, especially when broader measures of income including profit income and capital gains are taken into account. It is also probably true that capital wealth is more unequally distributed in the United States, due to a low level of state ownership in the industrial sectors. And it is very likely true that unemployment measures in the United States continue to understate the full amount of underemployment in America.

Nevertheless, it is sure that unemployment in the U.S. is far below that in Europe. And when one considers the concept of income that is most relevant to job-seeking, namely wages and earnings, combined with governmental transfer payments, then inequality in the United States is very probably also lower than in Europe, taken as a whole, and has been for a very long time.

6. Conclusions

Our conclusion is plain: inequality *causes* unemployment, both within and between countries, and through time. Unemployment is the expression of frustration with low-wage work, when significantly better alternatives are in plain view. Unemployment also causes inequality: in the periodic slumps and recoveries of the United States, this appears to be the principal chain of cause and effect. But in the United States, inequality also *falls* when full employment returns.

In Europe, it would appear, this is blocked from occurring. When failures of effective demand and external shocks destroyed the national full employment equilibria of the early 1970s, then existing inequalities within manufacturing, between manufacturing and services, and across countries determined the distribution of rising unemployment across Europe. And today, as regional integration has undermined national policy means for the pursuit of full employment, particularly by locking into a common currency that freezes transnational income differentials at high levels, Europe stands little chance of reducing cross-country pay differentials.

This position, so radically at odds with the supply-and-demand doctrine that permeates European discussion of the “wage rigidity” problem, is nevertheless closely in tune with the evidence that we have been able so far to marshal. There *is* a rigidities problem in Europe. But it is not the one commonly cited. Rather, the problem in Europe appears to be transnational as well as intra-national rigidities that prevent the American process of equalization from taking effect. Europe is not too equal: it is not nearly equal enough. Now, of course, the irreversible integration of European currencies into the Euro has blocked the easy channel of real exchange rate revaluation for Spain, Italy, Portugal and other low-income European countries.

This view is also consistent with the important Blanchflower-Oswald work on the “wage curve,” and also with Card and Krueger’s vital work on the minimum wage. Indeed our work suggests a straightforward underpinning for the latter’s finding that raising the minimum wage increases raise employment. Such increases reduce inequality, and so increase the opportunity cost of leaving low-productivity employments. Thus turnover falls, total employment rises, and fewer people report themselves as unemployed.

The policy conclusions are not for the faint-hearted. We have shown that countries that maintain very strong internal transfer mechanisms are more likely to enjoy lower unemployment than countries which reduce their welfare states in the pursuit of “efficiency.” Not everyone can have a high-productivity job. Indeed, to the contrary, the entire point of having high productivity jobs is, or ought to be, to be able to afford large numbers of low-productivity workers, either in teaching or caring professions or cleaning the streets or simply tending the landscape. This is the trick that the richer European countries have, in relative terms, continued to manage.

The larger lesson for European policymakers now emerges. To eradicate unemployment in Europe will require powerful action in one of three possible directions.

Europeans could restore to individual national governments the tools necessary to reduce inequality and unemployment at the national level; in other words, to set up the welfare states that the poorer countries in Europe now still lack. But do this, of course, one must either transfer revenues directly from rich to poor governments on a gigantic scale, or else undo the project of European union and allow national governments to compete once again in the creation of national high-productivity industries. This seems beyond imagining at the present time.

Alternatively, Europeans could encourage all nationalities to adopt the Portuguese solution, and let the people come to the welfare states. To some extent this will happen, over time, if nothing better is done. And it is not such a bad thing, for it will necessarily bring pressure on the rich countries to reflate.¹³ Yet, the difficulties and limitations of this approach need not be dwelled upon.

The third and remaining possibility is a full employment policy at the continental level, involving transfers not to governments but mainly to individuals and at a common continental standard. In principle, we know this is possible, for we can see it in action in the United States. And so we must ask, of what does full employment policy in the United States of America actually consist?

First of all, the United States has pursued a pro-equality low -interest rate policy since

¹³ Why are there liberals on Wall Street and none in the banks of Frankfurt? Part of the reason, surely, is that rich New York attracts America’s poor people, while wealthy Frankfurt repels the poor of Europe. Thus in Europe the progressive politicians are from the poor regions, while in the United States they come almost invariably from the wealthier states.

1995, not just on its own but in conjunction with a banking structure and credit policy strongly favorable to the private accumulation of debts. American households fuel full employment in the United States by borrowing. So do state and local governments, school and hospital districts, and private companies, and the Federal Reserve has accommodated them all by keeping interest rates stable and refusing to be spooked by fears of inflation. Europeans are much more reticent about private debt, but if they are unwilling to allow national governments to assume the burden of directly creating new employments, then they will have to change private attitudes instead.

Second, the United States has a continental Social Security System. It is not as generous as those in northern Europe, but we suspect it compares favorably with retirement funding in Europe as a whole. And the comparison should favor the United States even more, when one adds into the mix a health care system whose costs remain thankfully “out of control” -- so that health care employment and services provided have risen very rapidly in recent years. Further, the U.S. has an enormous state-supported system of higher education that uses far more resources, and holds far more young people off the labor market, than is the case in Europe. Any casual visitor to European and then to North American universities knows the importance of this fact.

Third, the United States, unlike Europe and despite the theatrics of the 1996 “welfare reform,” has been expanding the incomes of low-wage workers in recent years. The 1996 rise in the minimum wage no doubt further increased the opportunity cost of leaving low-productivity jobs, and so reduced turnover and the unemployment rate. But so too, and perhaps more significantly, did the vast expansion in the Earned Income Tax Credit that began in 1994, just as unemployment rates started to drop. The EITC has grown by more than \$30 billion since then, without raising political objections, and it may be that this single policy has done more than any other, a low-interest rate monetary policy possibly excepted, to reduce unemployment in the U.S.

Here then is a full employment program for Europe: First, lower interest rates, credibly and permanently, and greatly promote the private, business and local government uses of credit. Second, expand middle class public consumption goods, particularly health care, urban services and education. Particular attention should be paid to the creation of major new universities of the first water, and in the beautiful, lower-income regions of the European periphery, and to the full funding of students to attend them. Third, begin to extend the rich-country systems of European social insurance, and particularly retirement pay, to the poorer countries of Europe, raising demand and equality by helping the elderly first and foremost. Fourth, gradually raise poor country minimum wages, and subsidize the achievement of continental minimum wages in lower income Europe through a centrally disbursed program akin to the Earned Income Tax Credit.

A European welfare state, modeled on the comparatively successful social democracy of the United States: that’s the ticket. Do it the American way.

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European Countries Ranked in Ascending Order of Income Inequality by the World Bank	
1970	1992
UK	Spain
Sweden	Finland
Belgium	Belgium
Netherlands	Netherlands
Finland	Italy
Germany	Germany
Denmark	UK
Greece	Sweden
Spain	Denmark
Norway	Norway
Portugal	France
Italy	Greece
France	Portugal
Source: Deininger and Squire Data are for the nearest available year.	

Table 1.

European Countries Ranked in Ascending Order of Industrial Earnings Inequality According to the Theil Statistic	
1970	1992
Norway	Norway
Finland	Denmark
Denmark	Finland
Germany	Netherlands
Netherlands	Sweden
United Kingdom	United Kingdom
Belgium	Germany
Sweden	Belgium
Greece	Austria
France	Greece
Austria	Portugal
Italy	France
	Spain
	Italy
Source: OECD STAN and authors' calculations Data are for the year reported.	

Table 2.

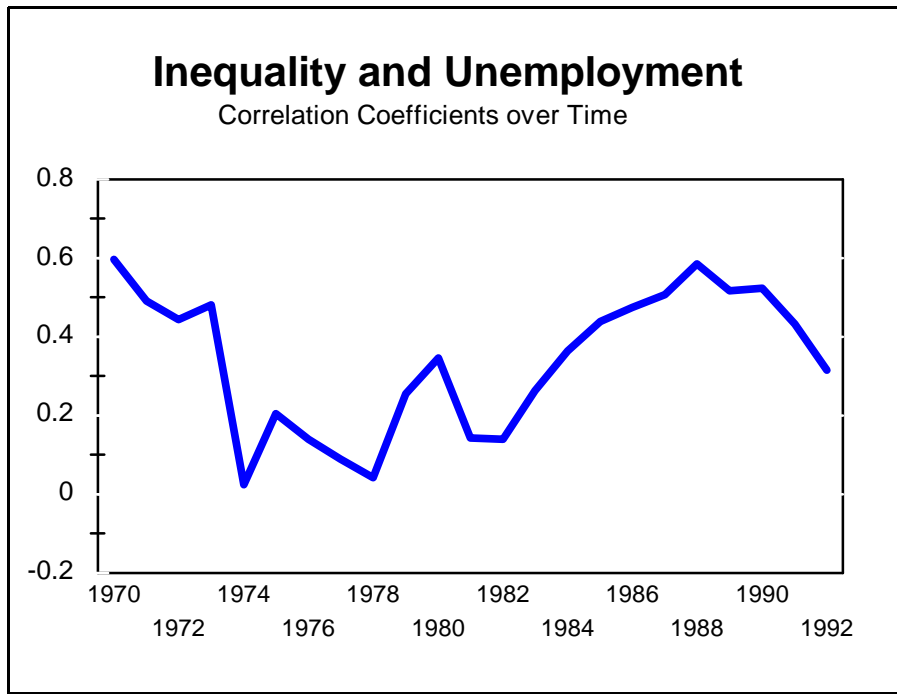


Figure 1. Correlation of the inequality in manufacturing earnings, measured by the Theil statistic, to rates of unemployment, fourteen European countries, 1970 - 1992.*

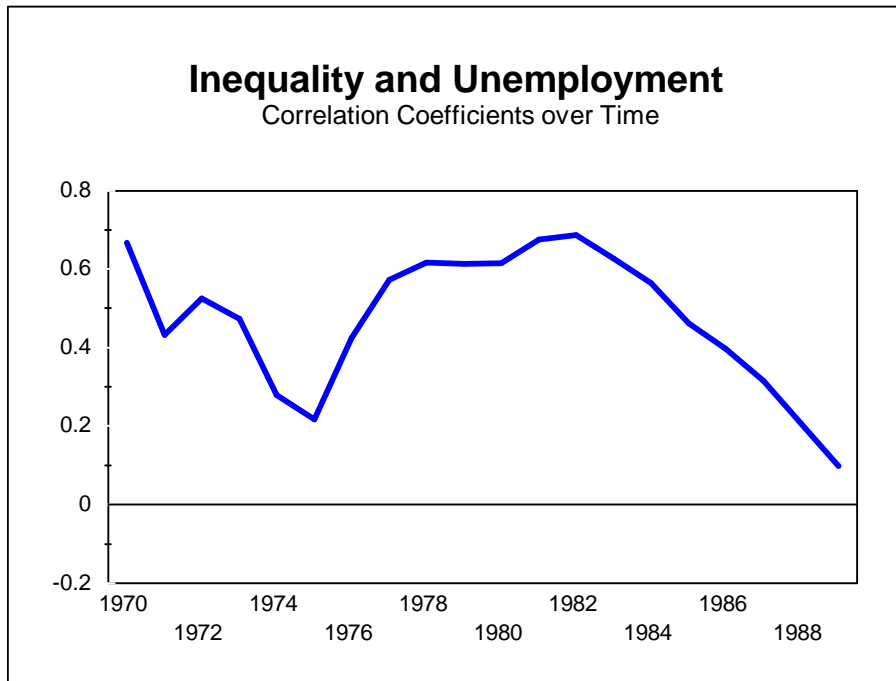


Figure 2. Correlation of the ratio between average manufacturing wage rates and per capita GDP to unemployment rates in fourteen European countries, 1970 - 1992.*

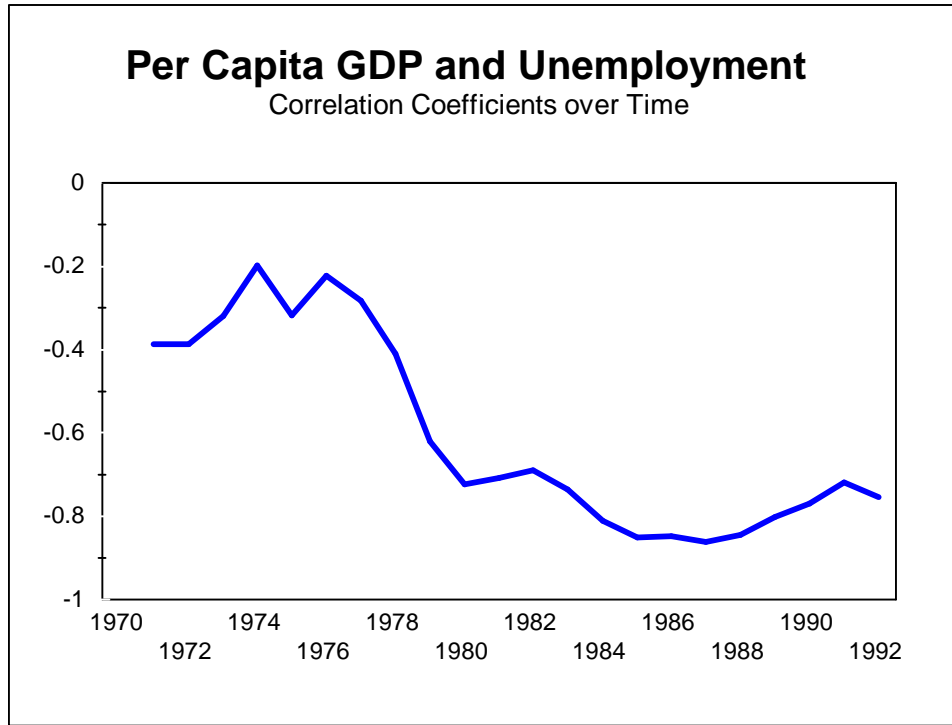


Figure 3. Correlation of Per Capita Gross Domestic Product and Unemployment Rates, 14 European countries, 1970 - 1992.

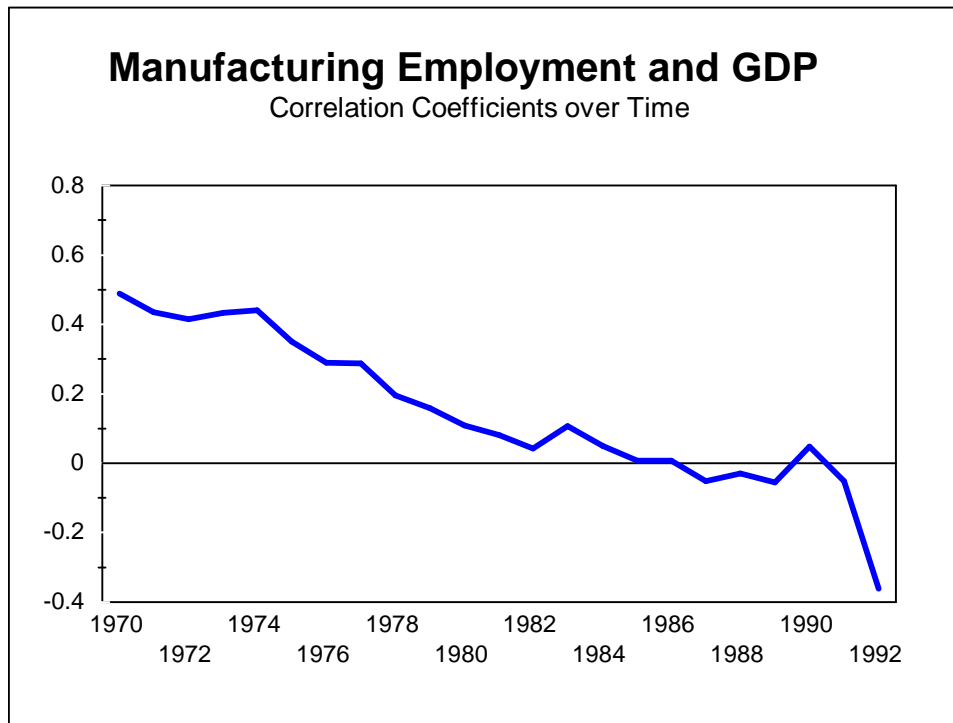


Figure 4. The Declining Correlation between Manufacturing's Share of Total Employment and Per Capita GDP in 14 European Countries, 1970 - 1992.

	Austria	Belgium	Denmark	Finland	France	Germany	Greece
1970	0.097	0.126	0.099	0.107	0.073	0.072	0.135
1981	0.092	0.126	0.098	0.097	0.072	0.071	0.146
1992	0.088	0.125	0.097	0.093	0.070	0.072	0.141
	Italy	Netherlands	Norway	Portugal	Spain	Sweden	UK
1970	0.101	0.094	0.088	0.170	0.094	0.077	0.072
1981	0.103	0.090	0.086	0.151	0.091	0.075	0.071
1992	0.103	0.089	0.095	0.160	0.087	0.081	0.070

Table 4. Herfindahl measures of industrial diversification for 14 European countries, selected years.

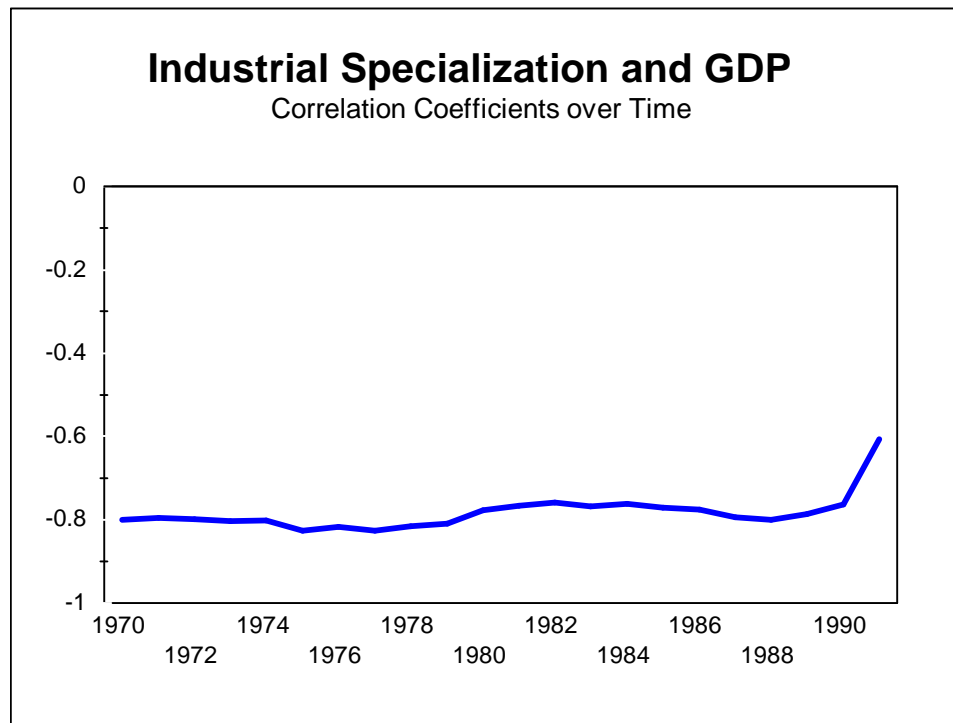


Figure 5. Correlation Coefficients between Cross-Industry Herfindahl Indexes and Per Capita GDP for 12 European Countries, 1970 - 1992.

Inequality in Europe Manufacturing Earnings

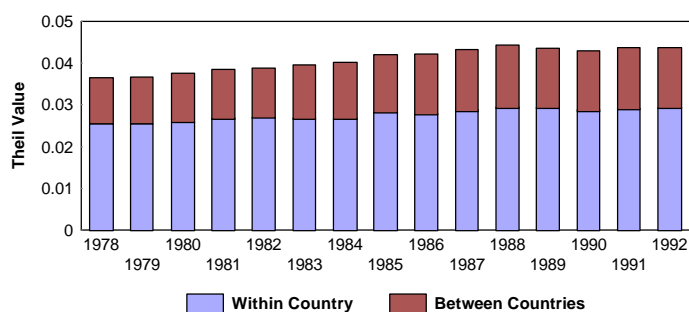


Figure 6. Inequality in industrial earnings for Europe as a whole, with disaggregation into within- and between- country components.

	Theil Euro			Theil US
	Within Countries	Between Countries	Total Euro	
1978	0.026	0.011	0.037	0.029
1979	0.026	0.011	0.037	0.028
1980	0.026	0.012	0.038	0.029
1981	0.027	0.012	0.039	0.029
1982	0.027	0.012	0.039	0.030
1983	0.027	0.013	0.040	0.030
1984	0.027	0.014	0.040	0.030
1985	0.028	0.014	0.042	0.030
1986	0.028	0.014	0.042	0.029
1987	0.029	0.014	0.043	0.028
1988	0.030	0.015	0.044	0.029
1989	0.029	0.014	0.044	0.029
1990	0.029	0.014	0.043	0.028
1991	0.029	0.015	0.044	0.028
1992	0.029	0.014	0.044	0.030

Table 4. Inequality in industrial earnings in Europe as compared to the United States

* Observations for Portugal begin in 1974 and for Spain in 1978. Data for France are adjusted to correct for missing industries in years before 1978, and data for Belgium are adjusted to correct for an undetermined error in the years 1970-72.

Appendix:

Theil Statistics measured across STAN industrial sectors for European countries.

Group Theil Statistics -- OECD Countries	Inequality and Unemployment -- Analysis of Levels																							
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Austria	26.7	23.9	22.4	21.9	24.1	24.3	24.1	23.5	23.1	23.3	23.2	25.4	24.5	20.6	22.4	21.5	21.5	22.4	19.6	20.8	19.8	18.4	17.1	17.1
Belgium	10.5	10.7	11.0	11.0	11.2	11.4	11.3	11.8	11.7	12.4	12.6	12.6	12.5	12.9	13.3	13.9	13.5	14.0	13.9	13.7	13.1	13.7	13.5	13.5
Denmark	8.4	8.6	8.5	7.3	7.3	8.7	7.3	6.4	6.5	5.9	5.6	5.7	6.2	5.6	5.4	4.9	5.1	5.3	5.6	5.1	5.4	5.5	5.5	5.5
Finland	8.0	6.5	7.1	7.3	6.7	6.5	6.3	5.9	5.9	6.8	6.0	5.8	5.3	5.5	6.2	6.2	6.5	6.0	5.2	6.0	6.3	7.1	6.8	7.4
France	17.1	16.6	15.0	15.9	16.7	14.6	16.5	16.5	16.7	17.9	18.3	20.1	19.8	18.8	18.0	19.6	19.0	19.1	19.2	19.2	19.2	18.8	19.1	19.1
Germany	9.5	9.2	8.9	9.1	9.9	10.1	10.2	10.4	9.9	10.4	10.5	10.3	10.5	11.0	11.7	11.2	10.7	11.4	10.9	11.0	11.0	10.5	10.8	10.8
Greece	12.7	12.3	12.1	12.0	13.7	13.6	12.4	12.7	14.3	15.9	16.5	17.3	18.7	13.9	14.7	13.5	11.4	11.8	12.4	13.9	15.4	16.5	17.3	18.0
Italy	27.8	22.7	21.4	21.0	20.0	21.2	20.4	17.4	17.5	16.8	17.2	17.6	17.7	17.9	17.2	18.7	19.3	19.7	22.2	22.6	22.3	22.3	23.5	24.7
Netherlands	10.3	10.3	9.8	9.9	10.3	9.5	8.3	8.0	8.0	8.0	7.8	7.9	7.7	6.7	9.0	8.3	7.7	7.5	8.2	8.5	8.5	7.7	7.4	7.8
Norway	4.4	4.3	3.9	4.0	4.1	3.9	3.7	3.5	3.6	3.7	3.8	3.6	3.8	4.1	4.4	4.1	4.1	4.3	4.1	3.8	3.9	3.8	3.8	
Portugal				31.3	30.9	18.9	20.8		20.0	15.9	15.4	15.2	16.7	17.8	16.9	17.9	20.8	18.0	17.5	18.2	17.7	18.5	18.5	18.5
Spain									22.0	22.4	21.1	21.0	20.4	20.6	21.7	22.3	21.9	22.0	23.0	23.7	22.5	22.0	18.5	
Sweden	11.5	9.8	9.8	10.1	9.8	9.2	8.4	7.8	7.0	7.6	7.5	8.2	8.5	8.6	9.3	11.0	11.3	10.9	8.9	9.2	9.8	8.0	8.6	8.3
United Kingdom	10.3	9.5	9.9	10.0	9.0	10.2	8.3	8.8	9.0	8.7	9.3	9.3	9.7	9.7	9.4	9.3	9.5	9.4	9.6	9.8	9.9	10.7	10.1	10.1

French data corrected for missing industries, 1970-1976
 Belgian data adjusted for error, 1970-72

Computed from Industrial Wage Data, STAN Database
 Actual values multiplied by 1000 to improve readability.

Ratio of Average Manufacturing Earnings to GDP and Unemployment Rates

Ratio of Average Manufacturing Wage to Per Capita	Unemployment Rates																		
	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
AUSTRIA	1.55	1.54	1.62	1.64	1.66	1.64	1.66	1.68	1.70	1.74	1.76	1.73	1.77	1.75	1.75	1.71	1.69	1.70	1.72
BELGIUM	1.56	1.60	1.67	1.74	1.74	1.74	1.74	1.79	1.88	1.85	1.89	1.92	1.92	1.83	1.80	1.74	1.69	1.69	1.74
DENMARK	1.12	1.25	1.27	1.26	1.25	1.21	1.25	1.30	1.32	1.28	1.26	1.22	1.16	1.10	1.11	1.11	1.11	1.10	1.12
FINLAND	1.25	1.21	1.31	1.36	1.35	1.34	1.28	1.26	1.30	1.28	1.27	1.26	1.27	1.28	1.27	1.22	1.20	1.25	1.37
FRANCE						1.63	1.63	1.68	1.75	1.73	1.75	1.78	1.77	1.68	1.67	1.62	1.61	1.60	1.64
GERMANY					1.52	1.48	1.48	1.52	1.58	1.61	1.61	1.64	1.64	1.56	1.54	1.53	1.52	1.47	1.45
GREECE	1.40	1.50	1.56	1.62	1.71	1.75	1.78	1.83	1.88	1.98	2.00	2.10	2.05	1.96	1.91	1.90	1.96	1.97	1.96
ITALY	1.69	1.70	2.03	1.87	1.81	1.76	1.72	1.59	1.63	1.61	1.63	1.65	1.64	1.54	1.52	1.47	1.48	1.46	1.46
NETHERLANDS	1.68	1.72	1.74	1.73	1.73	1.73	1.76	1.75	1.77	1.81	1.87	1.86	1.87	1.84	1.90	1.84	1.77	1.70	1.68
NORWAY	1.39	1.40	1.52	1.55	1.58	1.49	1.35	1.17	1.14	1.16	1.18	1.15	1.15	1.34	1.40	1.46	1.43	1.40	1.44
PORTUGAL	1.48	1.78	2.21	2.19	1.90	1.76	1.70	1.72	1.79	1.71	1.62	1.61	1.57	1.48	1.47	1.39	1.26	1.16	
SPAIN						1.87	1.90	2.03	2.16	2.14	2.16	2.13	2.11	1.94	1.82	1.73	1.64	1.59	1.59
SWEDEN	1.28	1.34	1.32	1.38	1.41	1.41	1.36	1.31	1.34	1.33	1.31	1.30	1.30	1.25	1.21	1.20	1.20	1.20	1.23
U.K.				1.65	1.57	1.55	1.53	1.50	1.60	1.61	1.61	1.66	1.66	1.68	1.69	1.62	1.54	1.55	1.56
Unemployment Rat																			
Austria	1	1.1	1.7	1.8	1.6	2.1	2.1	1.9	2.5	3.5	4.1	3.8	3.6	3.1	3.8	3.6	3.1	3.2	3.5
Belgium	2.4	2.5	4.5	5.9	6.7	7.2	7.5	7.9	10.2	11.9	13.2	13.2	12.3	11.6	11.3	10.3	9.3	8.7	9.3
Denmark	0.9	3.6	4.9	6.3	7.3	8.3	6	6.5	10.3	11	11.4	8.5	7.3	5.5	5.4	6.5	8.1	8.3	9.1
Finland	2.3	1.7	2.2	3.8	5.8	7.2	5.9	4.6	4.8	5.3	5.4	5.2	5	5.3	5	4.5	3.4	3.4	7.5
France	2.7	2.8	4	4.4	5	5.2	5.9	6.3	7.4	8.1	8.3	9.7	10.2	10.4	10.5	10	9.4	8.9	9.4
Germany	1	2.1	4	3.9	3.8	3.6	3.2	3.2	4.5	6.4	7.9	7.9	8	7.6	7.6	7.6	6.8	6.2	6.6
Greece	2	2.1	2.3	1.9	1.7	1.8	1.9	2.8	4	5.8	7.9	8.1	7.8	7.4	7.4	7.7	7.5	7	7.7
Italy	6.2	5.3	5.8	6.6	7	7.1	7.6	7.5	7.8	8.4	9.3	9.9	10.1	10.9	11.8	11.8	11.8	11.2	10.8
Netherlands	2.3	2.7	5.2	5.5	5.3	5.3	5.4	6	8.5	11.3	11.8	11.9	10.9	10.3	9.6	9.2	8.3	7.5	7
Norway	1.5	1.5	2.3	1.7	1.4	1.8	2	1.6	2	2.6	3.4	3.1	2.6	2	2.1	3.2	4.9	5.2	5.5
Portugal	2.5	1.7	4.4	6.3	7.4	8	8.1	7.7	7.4	7.3	7.8	8.4	8.5	8.5	7	5.7	5	4.5	4.3
Spain	2.5	3	4.3	4.4	5.1	6.8	8.4	11.1	13.8	15.6	17	19.7	21.1	20.8	20.1	19.1	16.9	15.9	16
Sweden	2.5	2	1.6	1.6	1.8	2.2	2.1	2	2.5	3.1	3.5	3.1	2.8	2.7	1.9	1.6	1.3	1.7	2.9
United Kingdom	2.2	2.1	3.2	4.8	5.2	5.1	4.6	5.6	9	10.4	11.2	11.1	11.5	11.6	10.4	8.3	6.1	5.5	7.9
Correlation	0.53	0.21	0.54	0.41	0.12	0.04	0.37	0.57	0.57	0.56	0.63	0.71	0.69	0.62	0.57	0.47	0.38	0.30	0.12