Economic Integration and Labor Market Policy in EMU

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The integration of European Labor Markets
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Markets cannot insure labor income  
(risk mixed in results with effort.)

Collective enforcement and information,  
Labor market policies:  
Redistribute income across individuals and  
over time, to offset risk.  
(can’t avoid production loss:  
less employment, less effort,  
slower reallocation.)
Minimum wages, Collective bargaining, Labor taxes & nonemployment subsidies:

Purpose: redistribute and smooth income.

Side effect: wage employment higher lower

Minimum wages, Collective bargaining, Labor taxes & nonemployment subsidies:

Purpose: redistribute and smooth income.

Side effect: wage employment higher lower
Economic integration:
Better efficiency,
   More (perceived) risk,
      Still hard to insure.

Labor market policies:
Still attractive, but worse side effects:
   production losses less affordable
      when competitiveness matters more.
More competition, Larger employment loss, Old policies less appealing.

Stronger cost impact

Much lower employment
Economic integration and reforms:

problems go away…
(better financial markets, less welfare state?)
…or side effects overwhelm positive.
… “there is no alternative” (TINA)
… “there is no need”? 

Labor policies are national:
Coordination issues.

An empirical question for EMU/not data.
Simple evidence

EMU

Observation from Eurozone country and year
(1999+, 2001+ for Greece)

Common developments: year effects.
Country characteristics: fixed effects.
....country specific trends.
Better labor markets

<table>
<thead>
<tr>
<th></th>
<th>Unemployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMU</td>
<td>-0.8328</td>
</tr>
<tr>
<td>tstat</td>
<td>-0.94</td>
</tr>
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</table>
Better labor markets

<table>
<thead>
<tr>
<th>Employment</th>
<th>tstat</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMU</td>
<td>1.73</td>
</tr>
<tr>
<td>tstat</td>
<td>2.13</td>
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</table>
**Similar average incomes**

<table>
<thead>
<tr>
<th></th>
<th>GDP p.c.</th>
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<tbody>
<tr>
<td>EMU</td>
<td>-0.0299</td>
</tr>
<tr>
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<td>-0.05</td>
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Similar productivity

<table>
<thead>
<tr>
<th></th>
<th>Labour productivity</th>
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</thead>
<tbody>
<tr>
<td>EMU</td>
<td>1.91</td>
</tr>
<tr>
<td>tstat</td>
<td>0.63</td>
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Less labor taxation...

<table>
<thead>
<tr>
<th>Labour tax</th>
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<tbody>
<tr>
<td>EMU</td>
</tr>
<tr>
<td><em>tstat</em></td>
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...especially if low govt. deficit

<table>
<thead>
<tr>
<th></th>
<th>Labour tax</th>
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<tbody>
<tr>
<td>EMU</td>
<td>-2.36</td>
</tr>
<tr>
<td>tstat</td>
<td>-5.44</td>
</tr>
<tr>
<td>Govt. Budget</td>
<td>1.30</td>
</tr>
<tr>
<td>tstat</td>
<td>-0.35</td>
</tr>
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</table>
More taxation, less employment?

Not really. Not in all countries.
Employment rate, 15+ aged population

Total tax wedge (avg rate in %), single at 100% of avg earnings, no child
more/less labor taxation, less/more employment?

Over time, within country, yes:

Austria
Belgium
Denmark
Finland
France
Germany
Greece
Ireland
Italy
Netherlands
Portugal
Spain
Sweden
United Kingdom

Employment rate, 15+ aged population

Total tax wedge (avg rate in %), single at 100% of avg earnings, no child
less labor taxation, more employment,
More so in EMU.
<table>
<thead>
<tr>
<th></th>
<th>Employment</th>
<th></th>
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<tbody>
<tr>
<td>Labour Tax</td>
<td>0.35</td>
<td></td>
</tr>
<tr>
<td>(tstat)</td>
<td>4.63</td>
<td></td>
</tr>
<tr>
<td>EMU</td>
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<td></td>
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<tr>
<td>(tstat)</td>
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<td></td>
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<tr>
<td>Tax*EMU</td>
<td>-0.10</td>
<td></td>
</tr>
<tr>
<td>(tstat)</td>
<td>-2.89</td>
<td></td>
</tr>
</tbody>
</table>

*Higher in EMU through lower tax,*

*which matters more.*

Also country effects
Evidence: suggestive.
Significant, small reform tendencies.

Labor market policies:
Stressed by competition.

Remove need or remove stress:
Household financial market access?
Supranational policy framework?
1. Labour market policy: goals and constraints

Labour market institutions have an important role in a world where financial markets and public redistribution schemes are imperfect, inaccessible, or ineffective. Minimum wages, collective bargaining, unemployment insurance, and employment protection legislation can target income redistribution across individuals and over time. In doing so, they cannot generally avoid loss of productive efficiency: unemployment insurance and employment protection tend to shift labour into unemployment, and to remove individual mobility incentives to allocate labour where it would be most productive.

To some extent, collective regulation of labour markets is certainly desirable. Like the serious health problems and other life-shaping events targeted by government policies, job loss can result from the individual’s own behaviour, which cannot be readily observed, and from well as from objective circumstance, which are hard to verify. Hence, private market are ill-equipped to provide insurance against labour income risk. An insurance contract specifying the circumstances where a worker would be entitled to compensation when fired would be exceedingly complex to write, and essentially impossible to enforce privately. Workers covered by private insurance contracts would not work as hard, and would be fired so much more promptly than uninsured workers as to make insurance either unprofitable for the issuer, or too costly for purchasers.

Governments have obvious enforcement advantages and may exploit better information about individual circumstances and interactions across agents. But policy could offer an unambiguous welfare improvement only in very unrealistic circumstances. Political decision processes are also shaped by inefficient rent-seeking incentives, and the information problems that prevent financial markets from providing insurance also imply efficiency losses from imperfect government policies. Workers insured against unemployment do not have strong incentives to avoid job loss and to find new jobs. Making it difficult for employers to fire redundant workers stabilizes workers’ labour income but also slows down labour reallocation towards more productive jobs, thus reducing production and profitability.
Figure 1 illustrates the impact of labour market policies. If workers faced by a downward-sloping labour demand function only care about the aggregate wage bill, they are collectively better off when the wage is set at a level higher than that which equates supply and demand, and employment is correspondingly lowered.

![Diagram](image)

**Figure 1:** The effect of minimum wages or labour taxes that finance subsidies to workers.

2. **National labour market policy and international economic integration**

International economic integration tends to worsen the employment and unemployment side effects of national policies meant to raise and stabilize labour incomes, because labour demand is more elastic in broader labour markets.

![Diagram](image)

**Figure 2:** Flatter slope of labour demand

As shown in Figure 2, a flatter labour demand relationship implies greater employment losses for any given wedge inserted between labour demand and supply, such as those implied by legal or contractual constraints that prevent the unemployed from underbidding employed workers. The smaller wage gains
implied by a flatter labour demand worsen the trade-off faced by labour market policy, as it reduces its positive impact on labour income and strengthens its unemployment and inefficiency side effects.

As integration tends to foster efficiency of employment, it increases the level as well as the cost sensitivity of labour demand. Hence, wages and employment can both increase even as policy becomes less intrusive. International economic integration, however, allows market participants not only to pursue efficiency more freely, but also to circumvent collective regulation. Thus, economic integration makes it difficult or impossible to enforce policies meant to shape individual choices differently from what would be implied by imperfect market mechanisms. To the extent that labour market rigidities prevent countries from reaping the fruits of economic integration, their effects on employment and productivity should be all the more negative as technical progress and policy reforms dismantle barriers to international trade and factor mobility. But a higher elasticity of labour demand also implies more volatility of employment and wages in response to product market shocks. This increases the appeal of policies meant to buffer the welfare implications of uninsurable risk. Thus, economic integration increases the desirability of labour market regulation (as long as markets remain imperfect) at the same time as it decreases its efficacy. In practice, the balance of these forces may associate economic integration with more or less pervasive institutional interference with labour market mechanisms.

3. An empirical question: EMU evidence

The European countries that joined EMU are characterized by particularly pervasive and possibly inefficient regulation of labour markets, and EMU’s peculiarly strong form of economic integration also fosters political incentives to improve labour market flexibility: since member countries renounce all independence in monetary and trade policy, and much independence in other policies, political processes that might otherwise preserve the institutional status quo of labour markets can be forced into reform. As “there is no alternative” (TINA), EMU countries should find it desirable to deregulate their labour markets. The absence of crisis danger, however, can actually foster a “there is no need” rather than a TINA attitude in political-economic interactions. And while aggregate wage and employment flexibility is certainly important in the absence of exchange rate changes, relative wage and employment flexibility is perhaps even more important across the regions, sectors, and occupations of countries where market integration reduces the relevance of country-level shocks and increases that of specific shocks. As other adjustment channels are shut down in a single-currency area, flexibility of labour markets may be a priority from the EMU-wide point of view. But labour market policy making remains essentially national, so actual reform patterns are influenced by coordination problems.
Thus, it interesting to assess the extent to which, in actual fact, the EMU economic integration experience is associated with labour market deregulation, and with sharper effects of remaining regulation. It is possible to capture that association with dummy variable equal to unity in 1999 and later years for Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, Netherlands, Portugal, and in 2001 and later years for Greece. It is also possible, in order to detect more or less gradual changes in the variables of interest, to estimate different trends across the adoption date for countries that do or do not enter EMU. To disentangle the effects of EMU from those of contemporaneous developments, it is possible to include year effects. To control for country characteristics, fixed effects specifications allow estimation of country-specific intercept.

In the regressions, then, the coefficient of an EMU dummy picks up the average difference between countries that do and do not use the single currency of year-specific means of the left-hand side variable, which could be influenced by contemporaneous developments only to the extent that they affect Eurozone countries differently from others.

<table>
<thead>
<tr>
<th></th>
<th>Unemployment</th>
<th>Employment</th>
<th>GDP per capita</th>
<th>Labour productivity</th>
<th>Labour Tax</th>
<th>Labour tax</th>
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<tr>
<td>EMU</td>
<td>-0.8328</td>
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<td>1.9127</td>
<td>-0.2589</td>
<td>-2.3557</td>
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<tr>
<td>t</td>
<td>-0.94</td>
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<td>-0.05</td>
<td>0.63</td>
<td>-0.35</td>
<td>-5.44</td>
</tr>
<tr>
<td>Govt. Budget</td>
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<td>N</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>140</td>
<td>124</td>
</tr>
</tbody>
</table>

**TABLE 1**: Regressions on EMU dummy (equal to unity in 1999-2005 for Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, Netherlands, Portugal) and year dummies, with country fixed effects. Sample: EU15, 1995-2005.

In Table 1, there is evidence that EMU is associated with lower unemployment (the evidence is stronger in the more sensitive youth segment of the labour force) and higher employment (again, more strongly so in “secondary” labour force segments, such as the female one). There is weak or no evidence of changes in per capita or per-hour production, suggesting that a movement along the labour demand curve was accompanied by an upward shift of labour productivity relative to the control group. Thus, at least part of the raw change in labour market outcomes for the sample of countries that did join EMU appears to be associated with EMU itself, rather than with the identity of the countries or with the influences of common (to the industrialized countries in the sample) factors captured by year effects.

There is similar evidence of an association between EMU and changes in labour market regulation. The decline in labour taxation is statistically insignificant in the fifth column of Table 1, but it is easy to find
stronger evidence of regulation with regressions specifications meant to investigate a little deeper the
determinants of policy choices. In the next column, controlling for government deficits (Maastricht
definition) increases the size and significance of the average labour tax reduction in EMU vis-à-vis the non-
EMU portion of the sample: since year and country dummies are included, the significantly negative impact
of EMU on labour taxation becomes evident when the relative need to improve government finances is
accounted for.

It is also possible to see whether in the data, as in the theory illustrated by Figure 2, labour market policy
has sharper negative implications for employment under conditions of tighter economic integration.

Consider, for example, the association between employment rate and tax wedge data. In Figure 3, the
overall association between the two is ambiguously sloped: some countries, such as Sweden, are able to
sustain both high employment and high taxes, while others, such as Greece, lie low along both dimensions.
This presumably reflects specific characteristics of each country’s economic and social structure, such as
the more or less “encompassing” character of their policymaking and wage bargaining processes. But the
figure also shows that many countries experienced large shifts in both of these variables over the sample
period, and that typical country-specific trajectories are negatively sloped (in the direction of lower taxes
and higher employment).

To see whether the data support the association of tighter integration with more negative effects of labour
market regulation, it is possible to run regressions of employment rates on labour taxation and its
interaction with economic integration.

Figure 3: Employment and labour tax rates in the EU15, 1995-2005.
TABLE 2: Regressions of total employment rate on labour tax and its interactions with an EMU dummy (equal to unity in 1999-2005 for Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, Netherlands, Portugal, in 2002-05 for Greece).

<table>
<thead>
<tr>
<th></th>
<th>Employment rate</th>
<th>Employment rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour Tax</td>
<td>-0.6777</td>
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<td>t</td>
<td>9.36</td>
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<tr>
<td>EMU</td>
<td>6.8981</td>
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<tr>
<td>t</td>
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<td>Labour Tax*EMU</td>
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<td>-0.1035</td>
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<tr>
<td>t</td>
<td></td>
<td>-2.89</td>
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<tr>
<td>N</td>
<td>140</td>
<td>140</td>
</tr>
</tbody>
</table>

Controlling for country fixed effects, the first column of Table 2 estimates a very significant and large coefficient for labour taxes as an explanatory variables of aggregate employment rates in the EU15 sample. Among the forces driving tax and employment outcomes along tradeoffs such as that illustrated in Figure 1, some – such as increasing openness to Far East trade and technological changes – are common across the entire sample. But others may be specific to EMU members and years. The second column of Table 2 includes the EMU dummy and its interaction with labour tax rates among the explanatory variables, thus allowing the relationship between taxes and employment to differ across the EMU and non-EMU subsamples. Again controlling for country fixed effects, the regressions detect a negative and strongly significant interaction. As shown fourth and sixth columns of Table 4A, there is also a negative (and significant when the regression uses marginal measures of labour taxation) interaction between labour taxes and trade openness.

This evidence is consistent with the mechanisms outlined in Section 2: monetary union strengthens the negative association between marginal labour tax rates and employment. Tax reductions associated with EMU, while statistically significant, have a modest economic impact in this exercise, confirming that reforms have not been as dramatic as TINA views might have predicted. But the change in slope illustrated in Figure 2 above can be detected in the data, and does have negative implications for employment. The evidence is similar, and sometimes stronger, as regards other policies and outcomes.

4. Concluding comments

In the data, EMU membership is associated with less intrusive policy interference with labour market laissez faire, and with higher employment. This evidence is fully consistent with simple theoretical insights: in an integrated economic area, national policies induce larger employment losses, and regulatory competition leads to deregulation in equilibrium.
When interpreting the evidence it is important to keep in mind that countries that adopted the euro certainly differ from the others in many relevant respects. They were not forced by an experimenter to join EMU. They chose to do so, and their decision was presumably influenced by their own characteristics as well as by the relationships between observable variables detected in the data. The observed pattern of institutional and outcome dynamics can be a natural consequence of the fact that many of the first wave of Eurozone countries had the most room for unemployment reduction and flexibility-oriented reforms.

The data can neither confirm nor deny that countries in the sample that did not but could join (Denmark, the UK, and Sweden) did not want or need to reform, or that countries that did join EMU may have done so also in order to obtain suitable reform incentives. But they can tell us that the intensity and the (good and bad) effects of country-level policy interference with labour market outcomes are correlated with EMU membership. To the extent that the effects of labour market institutions are (or are perceived to be) desirable, membership in a monetary union requires different policy approaches, based on harmonized regulation and/or on development of alternative insurance instruments.

Reference for data sources, details, and additional results: