

# The Domestic Institutional Sources of Monetary Integration in the Open Economy.

José Fernández-Albertos

jfernandez@ibei.org

Institut Barcelona d'Estudis Internacionals

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In spite of the growing interest on the choice of monetary regimes in the international political economy literature (Hefeker 1997, Frieden et al 2001, Bernhard et al 2003, Broz 2003), there is yet no clear understanding of the underlying determinants of *preferences* towards different international monetary regimes. While there are some off-the-shelve theories suggesting why some groups should be in favor or against pegs and floats generally<sup>1</sup>, these accounts fall short in answering why sometimes the *same* group exhibits different and even opposite exchange rate preferences across different contexts. For instance, while tradables are assumed to be the natural constituency in favor of pegs (because they suffer disproportionately from nominal changes in the exchange rate), it is striking that in many instances it has been the international sector who has actively push for the adoption of flexible monetary regimes, as a way to improve its external competitive position (Klein and Marion 1997, Brock Blomberg et al 2005).

This paper presents a theory of exchange rate regime *preferences* that shows how the international sector's preferences towards monetary integration depends upon some key characteristics of the domestic institutional context, and tests with evidence from the process of European monetary integration. This theory helps explains why, on the one hand, the politics of exchange rate regime choice tend to vary across countries, and, on the other, the relationship between economic internationalization and monetary choices is more complex than what the standard accounts suggest.

Following standard accounts (Broz and Frieden 2001, Frieden 2002), I start by assuming that the political demand for the monetary integration originates in the international sector, because it disproportionately benefits from nominal currency stability. But unlike in the standard simple view, I note that adherence to a monetary union (or, for that matter, any decision which requires fixing the nominal exchange rate) implies the automatic adoption of a domestic monetary rule than might damage the external competitive stance of tradables. As we will see, the magnitude of this 'competitiveness cost' for tradables is a function of the presence of certain domestic macroeconomic institutions, namely the degree of coordination of wage bargaining

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<sup>1</sup>For a review, see Frieden and Broz 2006.

and the unaccommodating stance of the central bank. These institutions, by tampering the possibility of wage push in the sheltered sector, prevent an appreciation of the real exchange rate when the nominal one is fixed. As a consequence, only when these institutions are present do tradables actively push for the adoption of fixed exchange rate regimes. In other words, the positive link between the size of the international sector and the political predisposition to adopt pegs holds provided the institutional environment can guarantee that the real exchange rate will not appreciate when the nominal one is fixed. In the absence of such institutions, there are powerful reasons to expect that the international sector will become skeptical towards international monetary integration, as the benefits from nominal stability will have to be weighed against the costs in the forms of expected loss in external competitiveness.

The recent European experience offers a good opportunity to test some key empirical implications that follow from that theory. First, the availability of abundant data on the levels of national support for the project monetary unification in Europe enables us to see whether, as suggested by the theory, the effects of the varying political leverage of the international sector is mediated by the presence of those macroeconomic institutions. Since there is little variation in the degree of central bank independence among EMU candidate members (a result of the process of integration itself), we will focus on the effect of the degree of coordination of wage bargaining, which does vary a great deal across European economies. According to the main argument, a high degree of commercial integration should be associated with stronger preferences for monetary unification only in countries in which there is high degree of wage bargaining coordination, but much less so if these institutions are absent or weak. As it will be show, this simple conjecture seems to be strongly borne out by the data.

This theoretical framework also suggests a novel interpretation for the mushrooming of social pacts in Europe at the time the common currency was being consolidated in the continent. In virtually all extant accounts (Hancke and Rhodes 2005, Perez 2002, Pochet 1999) the recent re-birth of centralized social concertation in Europe is explained as a way of securing national broad support at the national level for the (supposedly costly) national adaptation to the new monetary regime. In line with this view, I argue that adaptation to the constraints imposed by the adoption of the common currency were the driving force those changes. However, the theory presented here would suggest that the recentralization impulses should have varied in intensity depending upon the size of the exposed sector of the economy and the presence of pre-existing domestic institutions of wage coordination. The last section of the paper tests such conjecture.

The paper is structured as follows. First I present the an institutional theory of exchange rate regime preferences. According to this theory, variation in the direction and intensity of sectoral preferences towards the decision to fix the nominal exchange rate depend upon the presence of certain domestic institutions. Next, I examine data on national preferences toward monetary unification in Europe to see whether the model can account for the existing variation both across countries and time. Finally, the last section of the paper analyzes the variation in the emergence and character of social pacts in European countries during the process of

monetary unification, and explores to what extent these social pacts can indeed be understood as endogenous responses to changes in the monetary environment faced by different domestic political economies.

## 1 An Institutional Theory of Monetary Regime Preferences

Why does the international sector seem to exhibit opposite preferences towards exchange rate regimes in different contexts? To answer that question, the model proposed here considers the two distinct distributional consequences that the adoption of a fixed exchange rate regime has. On the one hand, a fixed regime eliminates nominal volatility, which benefits some groups more than others; on the other, by altering the strategic environment in which wage-setting takes place, it might also affect the *real* exchange rate -harming some sectors but benefitting others.

Because the puzzle is to explain the opposite exchange rate regime preferences of the *exposed* sector of the economy, the model looks exclusively at the preferences of that sector, and explores what do those preferences depend upon. For simplicity, I assume that there are only two types of regimes: a fixed regime, in which the nominal value of the domestic currency is not allowed to change, and a floating one, in which the relative price of currencies are set freely on the foreign exchange market. As it will be shown, a fixed exchange rate regime essentially implies two things: first, the nominal exchange rate between the countries adopting the peg will not change. Second, and perhaps more importantly, the belief that the nominal exchange rate will not change affects, in equilibrium, the wage behavior of the different sectors of the economy.

In a floating exchange rate regime, the monetary authority is simply driven by its desired to keep inflation and unemployment down, as in the classic Barro and Gordon's (1983) classic formulation. In a fixed exchange rate regime, the monetary authority also minimizes unemployment and inflation as dictated by its utility function, but, additionally, is credibly committed to keep the nominal exchange rate stable against some foreign anchor. This implies, under conditions of full international capital mobility and the need to maintain the external balance, that the domestic price of tradables ought to be in line with the price of international tradables.<sup>2</sup>

There are three economic groups in society: exporters (*EX*), import-competers (*IM*), and non-tradables (*NT*). Labor and capital are sector-specific. Workers are organized into unions that, as in standard models of wage setting, are able to push up nominal wages in their firms, but are constrained by the fact that firms will respond to these wage increases by cutting employment<sup>3</sup>. The only difference between workers in tradables and nontradables resides in that while the latter always have the ability to exchange wage increases for jobs, unions in tradables can only do so under a floating exchange rate regime. More precisely, the assumption is that the labor demand curve of firms in the tradable sector becomes completely horizontal

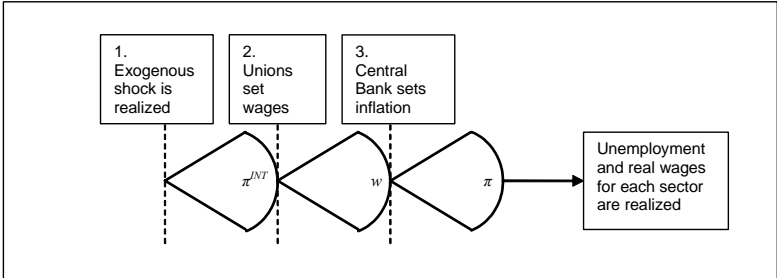
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<sup>2</sup>Under this analytical distinction, fixed exchange rate regimes cover not only exchange rate pegs, but also more 'hard' currency arrangements such as currency boards, monetary unions, or the adoption of a foreign currency (e.g. dollarization).

<sup>3</sup>This abstraction is used only to characterize the trade-off between real wages and employment that workers must face when asking for wage increases.

under a fixed exchange rate regime. Albeit extremely simplifying, this captures the fundamental difference between the exposed and the sheltered sectors of the economy when confronted with exchange rate regimes: the tradable sector, which, by definition, has to compete in international markets, is able to push up wages only if the mismatch between domestic and foreign prices is compensated by changes in the nominal exchange rate. Under a flexible exchange rate regime, a depreciation of the currency restores the international competitiveness of firms in tradables whenever domestic prices and international prices diverge. This allows workers in those firms to ask for nominal wage increases, just as their nontradable counterparts do. Under a fixed exchange rate regime, in contrast, workers in tradables are aware that *any* nominal wage increase beyond international price developments will automatically translate into loss of international competitiveness and, consequently, unemployment.

Figure 1: Sequence of the game between wage bargainers and the monetary authority



The sequence of the game between wage-setters and the monetary authority is represented in figure 1. First, a shock affecting the relative price of foreign-produced goods is realized. Then, unions in nontradables and tradables simultaneously set their nominal wage increases. In the final step, the monetary authority responds to that nominal wage increase by setting the price level according to its commitments with respect to the exchange rate (if any), unemployment, and inflation.

The game is solved by backwards induction. Therefore, I first obtain the expected responses of the monetary authority to union’s wage demands in the last node of the game (the price level  $\pi$ ). Secondly, we obtain the union’s utility-maximizing wage demands, given the expected reaction of the monetary authority ( $w^*$ ). The last step is to compare the sectors’ expected utilities under different monetary regimes and different values of the exogenous values of the model parameters.

## 1.1 The set-up<sup>4</sup>

Monopoly unions decide over the nominal wage increase, constrained by the expected reduction in unemployment that the increase will eventually generate. The trade-off between real wages and unemployment is reflected in their utility function: for simplicity, I will assume that workers value equally increases in real wages and reductions in unemployment, so that the utility function of a given union in sector  $i$  will be:

$$W_i = (1 - \gamma_i)\left(-\frac{1}{2}U_i + \frac{1}{2}(w_i - \pi)\right) - \gamma_i(|\Delta e|) \quad (1)$$

where  $U$  refers to the unemployment level,  $w$  to the nominal wage increase,  $\pi$  to the inflation rate, and  $\gamma$  is a parameter measuring the sector's sensibility to nominal fluctuations in the exchange rate  $e$ <sup>5</sup>, relative to the unemployment and real wage concerns. Nominal currency fluctuations, as conventional political-economy analyses of exchange rate regime preferences have long emphasized, have obvious distributional consequences<sup>6</sup>, implying that  $\gamma$  should vary across sectors. In line with these arguments, I will assume that nominal stability is *in principle* inconsequential for nontradables ( $\gamma_{NT} = 0$ ), but it is positively valued by exporters ( $\gamma_{EX} > 0$ ), because predictability facilitates international transactions. This goes in line with the received wisdom that exporters should be the 'natural constituency' for pegs, as the traditional OCA literature and its political-economy corollaries contend. Finally, import-competers' preferences towards exchange rate volatility could go either way. On the one hand, currency volatility benefits them as it gives them a 'home advantage' versus foreign competitors who offer more volatile prices. On the other hand, import-competers might dislike volatility as it forces them to face more unpredictable competitors across time. Given this ambiguity, I will assume that  $\gamma_{IC} = 0$ , the same as for nontradables.

The monetary authority minimizes inflation and unemployment, according to the standard formulation of the central bank's utility function:

$$W_{CB} = -\iota\pi^2 - (1 - \iota)U^2 \quad (2)$$

where  $\iota$  measures the degree of 'conservatism', or relative preference for price stability versus employment.

Total unemployment is simply modelled as a function of the unaccommodated total wage increase:

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<sup>4</sup>The model is largely inspired by Iversen (1998, 1999), from whom I have borrowed also the nomenclature. With respect to that model, the one presented here introduces a sectoral division between tradables and non-tradables, and discusses the implications of the existence of an exchange rate commitment for the monetary authority's behavior, and, indirectly, for wage bargaining.

<sup>5</sup>As explained below, the volatility of the exchange rate ( $e$ ) is a function of the absolute difference between the domestic price of tradables ( $\pi^T$ ) and the international price shock ( $\pi^{INT}$ ).

<sup>6</sup>In the traditional interpretation, the choice of the exchange rate regime involves a trade-off between the benefits of nominal stability that a peg provides, and the costs it imposes in terms of loss of domestic monetary autonomy under conditions of international capital mobility. Different sectors of the economy value different the two extremes of the trade-off: domestic-oriented sectors will tend to prefer not to sacrifice monetary autonomy, while exporters will value more the nominal stability that a peg guarantees. See Broz and Frieden (2001).

$$U = w - \pi \quad (3)$$

Wages are decided by monopoly unions covering equally sized portions of the economy. The size of this wage bargaining units is given by the centralization parameter  $c$ , which is defined as the inverse of the number of wage bargaining units  $N$ , so that  $c$  ranges from  $\frac{1}{N}$  to 1, where  $c = 1$  denotes total wage bargaining centralization.

The external constraint is given by the need to keep the balance of payments in equilibrium. For this to be the case, the domestic price of tradables ( $\pi^T$ ) must equal the price of foreign tradable goods ( $\pi^{INT}$ , which is realized at the beginning of the game), adjusted for the nominal exchange rate  $e$ .

$$\pi^T = e * \pi^{INT} \quad (4)$$

The international price shock ( $\pi^{INT}$ ) has zero mean, and its variance is given by the degree of international exposure of the economy:

$$var(\pi^{INT}) = \frac{1}{\phi^2} - 1 \quad (5)$$

where  $\phi$  represents the share of the nontradable sector in the economy, so that the volatility of the exchange rate equals zero if no tradable sector exists ( $\phi = 1$ ).

Finally, we define the expected change in the nominal exchange rate ( $|\Delta e|$ ) under a float and under a peg as follows:

$$\begin{aligned} |\Delta e|(FLOAT) &= var(\pi^{INT}) + \frac{\pi}{var(\pi^{INT})} \\ |\Delta e|(FIX) &= 0 \end{aligned} \quad (6)$$

Under a floating regime, the expected change in the nominal exchange rate is a positive function of the domestic price level and the volatility of the international price shock<sup>7</sup>. Under a fixed exchange rate regime, by definition, the nominal exchange rate does not change.

## 1.2 Wage-Setting Under Different Exchange Rate Regimes

Under a floating exchange rate regime, any difference between the price of tradables at home and abroad ( $\pi^T, \pi^{INT}$ ) will spur a change in  $e$ <sup>8</sup> that will keep the external balance constraint (equation 4) satisfied. The fact that the nominal exchange rate  $e$  always restores the competitiveness of tradables cancels any differences of tradables and nontradables with respect to wage bargaining (exporters, however, are still sensitive to nominal exchange rate volatility). As a result, under a float all sectors will demand the same nominal wage increases, implying that

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<sup>7</sup>This formulation guarantees that when the domestic price level is zero, the change in the nominal exchange rate is just a direct function of the volatility of the international price shock, and that the positive effect of price levels on volatility is mitigated as international price shocks become more volatile.

<sup>8</sup>As shown in expression 6.

$$\pi^T = \pi^{NT} = \pi = e * \pi^{INT^9}.$$

We first analyze the last node of the game: the decision of the monetary authority to select a rate of inflation that minimizes unemployment and inflation, taking the wage demand schedule as exogenous. This rate of inflation is obtained by equalizing the derivative of its utility function (equation 2) with respect to  $\pi$  to zero, and then solving for  $\pi$ :

$$\frac{\partial}{\partial \pi}(-\iota \pi^2 - (1 - \iota)(w - \pi)^2) = 0 \quad (7)$$

$$\pi^* = (1 - \iota)w \quad (8)$$

The expression simply shows that the central bank chooses a higher price level when confronted with higher wage demands, and the slope of this reaction function is given by  $\iota$ , the degree of conservatism of the bank.

Knowing that the central bank will react as indicated in equation 8, we can now solve for the optimal nominal wage increase that unions will choose in the previous stage of the game. To do so, we first plug  $\pi^*$  as defined in 7 into equation 3. With this new expression for unemployment, unions select the utility-maximizing wage increase, bearing in mind that the unemployment effect of their individual wage increase will be weighted by the centralization parameter  $c^{10}$ . This optimal wage increase is given by the following expression:

$$w^*(FLOAT) = \frac{1}{2} - \frac{1}{2}c \quad (9)$$

The equilibrium price level  $\pi^*$  is obtained by plugging this expression back into 8, the central bank reaction function:

$$\pi^*(FLOAT) = (1 - \iota)\left(\frac{1}{2} - \frac{1}{2}c\right) \quad (10)$$

This is the equilibrium price level in a floating regime. By taking the derivative of this expression with respect to  $c$ , we can see how the price level changes as a response to variation in the degree of wage bargaining centralization:

$$\frac{\partial \pi^*}{\partial c} = -\frac{1}{2} + \frac{1}{2}\iota \quad (11)$$

The negative sign of this expression indicates that *higher levels of centralization reduce the equilibrium price level*. Centralization of wage bargaining, by making unions more aware of

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<sup>9</sup>In effect, the tradable sector should weight the gain in purchasing power by following the nominal wage increases in the nontradable sector against the cost incurred in terms exchange rate volatility. In theory, when nominal stability is very important for exporters (high  $\lambda$ ), they could decide to target the international price shock when deciding over their sectoral wage increases. However, I assume that the effect of the individual wage-bargainer in the tradable sector on the nominal exchange rate  $e$  is negligible, so it will never be able to stabilize unilaterally the exchange rate. Later I discuss at length why it is very unlikely that tradables will manage to unilaterally impose a "de facto peg".

<sup>10</sup>The reason for this is that the effect of wage increases on unemployment (via the central bank's reaction function) is small if the union's wage agreement is circumscribed to a small portion of the economy, but grows as the same wage agreement applies to larger portions of the labor force.

the unemployment consequences of their sectoral agreements, induces wage restraint, which guarantees lower prices. This effect is however smaller when the monetary authority is particularly concerned with inflation (high  $\iota$ ). The reason for this result is that, when confronting a non-accommodating central banker who cares little about the employment consequences of low inflation, unions will have an extra incentive to exercise wage restraint, since they will suffer sooner the (undesired) employment consequences of militant wage demands. What this implies is that these two institutional devices (coordination of wage bargaining and non-accommodating central banks) can be understood as substitutes (Iversen 1998, 1999): price stability can be achieved either directly by establishing a credible monetary authority that cares little about the negative consequences of a restrictive monetary policy in terms of unemployment, or indirectly by centralizing wage bargaining.

What changes do the introduction of a fixed exchange regime introduce? The immediate consequence of an international monetary commitment is that it alters the conduct of monetary policy. The central bank, as in the floating case, will minimize unemployment and inflation as dictated by its loss function (2). But monetary policy must now also secure a stable exchange rate. By definition, this is only achieved if the domestic price level of tradables ( $\pi^T$ ) equals the international price level ( $\pi^{INT}$ ) (otherwise, changes in the nominal exchange rate are necessary to restore balance-of-payments equilibrium). Since the international price level is zero on average, the average price level selected for tradables will be, also on average, zero. In other words, the monetary authority becomes completely unaccommodating with respect to exporters' and import-competers' wage demands. Given that the general price level can be decomposed as the weighted sum of inflation in each sector ( $\pi = \phi\pi^{NT} + (1 - \phi)\pi^T$ ), where  $\phi$  measures the size of the nontradable sector, inflation under a peg will simply equal the price level of nontradables, weighted by its relative size:  $\pi(FIX) = \phi\pi^{NT11}$ . If the whole economy is composed of nontradables, this reduces to the floating example (central bank's monetary policy is geared completely towards domestic objectives, and the exchange rate is irrelevant because there are no tradable goods). If, in the other extreme, all sectors are tradable, monetary policy is completely constrained by the need to keep the level of prices in line with international ones.

Confronted with a completely non-accommodating monetary authority, wage bargainers in tradables will never demand wage increases beyond the international price level. Note that, in contrast with the situation under a float, the nonaccommodating monetary stance of the central bank does not require coordination between wage bargainers to achieve wage restraint in tradables. The reason is that any individual wage bargainer in this sector that decides to increase wages beyond the international price level will be simply wiped out by foreign competition. Under a peg regime, therefore, strategic wage bargaining is only *available* to nontradables. This implies that the relationship between unemployment and wage increases in nontradables can now be written as

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<sup>11</sup>Note that this implies that, for any positive value of the overall price level, the prices of nontradables will be even higher,  $\pi^{NT} = \frac{\pi}{\phi}$ , by an amount proportional to the size of the tradable sector ( $1 - \phi$ ).



$$U(FIX) = \phi w^{NT} - \pi \quad (12)$$

This yields a new expression for the central bank reaction function:

$$\pi = (1 - \iota) \phi w^{NT} \quad (13)$$

Given total wage restraint in tradables, the central bank will only respond to nominal wage demands in nontradables, weighted by the relative size of this sector( $\phi$ ):

With this new unemployment expression and the new central bank reaction function, unions' optimal wage increase under a peg is<sup>12</sup>

$$w^{NT*}(FIX) = \frac{1}{2} - \frac{1}{2}c\phi \quad (14)$$

As before, substituting the wage demand in 13 for 14 yields the equilibrium price level under a peg regime:

$$\pi^*(FIX) = (1 - \iota) \phi \left( \frac{1}{2} - \frac{1}{2}c\phi \right) \quad (15)$$

The derivative of this expression with respect to  $c$  yields the effect of centralization of wage bargaining on prices under a fixed exchange rate regime:

$$\frac{\partial \pi^*}{\partial c} = - \left( \frac{1}{2} - \frac{1}{2}\iota \right) \phi^2 \quad (16)$$

When compared with 11, expression 16 indicates that the effect of centralization on prices is smaller under a peg than under a float ( $0 < \phi < 1$ ). It also shows that the wage-restraining effect of centralization shrinks as the tradable sector ( $1 - \phi$ ) expands. For low levels of trade exposure (high  $\phi$ ), centralization of wage bargaining reduces the price level in the same degree as under a floating exchange rate regime<sup>13</sup>. But when the size of the tradable sector looms larger, the salutary consequences of centralization of wage bargaining on domestic inflation decrease. As a result, increases in the weight of tradables in the economy means that higher levels of centralization will be required to provide the same degree of wage restraint in the nontradable sector.

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<sup>12</sup>Unions now select the wage nominal increase that maximize the following expression:  $-\frac{1}{2}(\phi cw - (1 - \iota) \phi w) + \frac{1}{2}(w - (1 - \iota) \phi w)$

<sup>13</sup>It is worth noting that we are only considering the effect of centralization of wage bargaining *among non-tradables*. This is so because tradables in a fixed exchange rate regime are assumed to be inherently unable to push up wages, and hence cannot participate as strategic actors in wage-setting. If, as one could argue, higher levels of centralization are also associated also with a higher influence of tradables in wage bargaining across the economy, the main result of the model (i.e. that centralization makes the exporting sector to embrace fixed exchange rates) would be further strengthened. I discuss the consequences that inter-sectoral wage coordination could have in the following section.

### 1.3 Comparison of regimes

We are finally ready to answer the original question: which regime will the internationally-oriented sector of the economy prefer, and under what circumstances? To do so, we just have to compare the exporters' expected utilities given the equilibrium real wages and unemployment levels under a float and under a peg, and see how the relative value of these utilities vary as the values of the model parameters value change.

When choosing between a fixed and a floating exchange rate regime, exporters face a fundamental trade-off: they must choose between minimizing the relative real wage loss associated with a peg regime or limiting the harm caused by nominal exchange rate volatility. When the real wage concern dominates, a floating exchange rate regime will be more attractive. When nominal stability is more important, a fixed exchange rate regime will be instead the sector's preference. Any variable that aggravates the "real wage loss" problem will be thus associated with greater preferences for floats<sup>14</sup>. This is the why lower levels of centralization of wage bargaining and central bank conservatism make exporters more fond of flexible exchange rate regimes. As they increase the equilibrium price level (and hence the tradables' real wage loss under a peg), so does the relative costs of a peg. On the other hand, any change that brings about a greater cost of nominal instability, such an increase in the  $\gamma$  parameter, or a greater internationalization of the economy ( $1 - \phi$ ) will, by amplifying the gains from pegging, make exporters lean towards this type of exchange rate arrangement.

Table 1 summarizes the marginal effects of higher values of each of the model parameters on the exporters' exchange rate preferences.

Unsurprisingly, the sensitivity to the nominal exchange rate is associated with a preference for pegs. Greater sensitivity to currency volatility lowers the utility received under a float ( $\frac{\partial W_{EX}(FLOAT)}{\partial \gamma} < 0$ ) because this regime delivers a more volatile exchange rate. Under a peg, however, greater sensitivity to changes in the exchange rate increase the exporters' welfare because the relative weight of the real wage loss is reduced ( $\frac{\partial W_{EX}(FIX)}{\partial \gamma} < 0$ ). As a result, as the export sector becomes more concerned with nominal stability, they tend to prefer fixed to floating exchange rate regimes.

The effect of the size of nontradables on the exchange rate preference of the exporting sector is less obvious. Under a float, a larger size of the nontradable sector is unambiguously associated with a greater utility  $\frac{\partial W_{EX}(FLOAT)}{\partial \phi} > 0$ , as greater exposure to international shocks increases currency volatility. Under a fix, however, the size of nontradables have two counterweighting effects: on the one hand, a smaller size of nontradables fosters wage militancy in that sector, as the central bank responds in a *de facto* more 'accommodating' fashion to wage demands. However, a smaller size of nontradables also implies that the aggregate effect of this new structure of incentives will be smaller too. As a result, the welfare effect of an increase in

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<sup>14</sup>Holden's (2005) and Vartianen's (2002) models arrive essentially at a similar conclusion: tradables' real wage is negatively affected by a fixed exchange rate regime. However, they do not include in their model the standard benefit that this sector might derive from nominal currency stability.

Table 1: Marginal Effects of the Model Parameters on Exporters' Preferences Towards Exchange Rate Regimes

$x$	$\frac{\partial W_{EX}(FLOAT)}{\partial x}$	$\frac{\partial W_{EX}(FIX)}{\partial x}$	Effect on Preferences
$\gamma$	$\phi^2 \left( \left( \frac{1}{2} - \frac{\iota}{2} \right) c - \left( \frac{1}{2} - \frac{\iota}{2} \right) - \frac{1}{\phi^2} + 1 \right)$	$\phi \left( \left( \frac{1}{2} - \frac{\iota}{2} \right) - \left( \frac{1}{2} - \frac{\iota}{2} \right) c \phi \right)$	Fix
$\phi$	$\gamma \frac{2}{\phi^3} + \phi c (1 - i) - (1 - i)$	$(2c\phi - 1)(1 - \gamma) \left( \frac{1}{4} - \frac{\iota}{4} \right)$	Float
$\iota$	$\phi^2 \gamma \left( \frac{1}{2} - \frac{\iota}{2} \right)$	$\left( \frac{1}{4} - \frac{1}{4} c \phi \right) (\phi - \phi \gamma)$	Fix
$c$	$\left( \frac{1}{2} - \frac{\iota}{2} \right) \phi^2 \gamma$	$\left( \frac{1}{4} - \frac{\iota}{4} \right) \phi^2 (1 - \gamma)$	Fix

$\gamma$ : sensitivity to nominal exchange rate

$\phi$ : size of Nontradables

$\iota$ : Central Bank conservatism

$c$ : centralization of Wage Bargaining

the size of the nontradable sector in the economy for exporters under a peg is ambiguous. It can be shown, however, that when this effect is positive, it will never make the utility under a peg greater than the utility under a float i.e. an increase in  $\phi$  might lead to change in preference from a peg to a float, but never the other way around.

Anti-inflationary preferences of the central bank are, both under a float and under a peg, associated with welfare gains for the exporting sector ( $\frac{\partial W_{EX}(FLOAT)}{\partial \iota} > 0$  and  $\frac{\partial W_{EX}(FIX)}{\partial \iota} > 0$ ), but for different reasons. In a fixed exchange rate regime, a non-accommodating monetary authority reduces wage militancy in nontradables, and hence raises the real wage of tradables. In a floating exchange rate, in contrast, the salutary effect of a conservative central bank derives from the reduction in the exchange rate volatility that the lower price level brings about. However, because this effect is tempered by the degree of exposure to the international economy, it will never be strong enough to spur a change in preferences in favor of a floating exchange rate regime. As a result, higher degrees of monetary conservatism will invariably lead to stronger preference for pegs in the exporting sector.

Similarly, centralization of wage bargaining improves exporters position under both currency regimes ( $\frac{\partial W_{EX}(FLOAT)}{\partial c} > 0$  and  $\frac{\partial W_{EX}(FIX)}{\partial c} > 0$ ). From expressions 11 and 16, centralization lowers the general price level, which in turn reduces the expected exchange rate volatility under a float, and the real wage loss under a peg. As in the previous case, it can be shown that while higher levels of centralization might, under a certain range of model parameters, make exporters change their preference from a float to a peg, the opposite will never occur. The intuition behind that result is straight forward: for the effect on volatility to be greater

that the effect on real wage loss, exporters have to be extraordinarily concerned about exchange rate volatility ( $\gamma$  must be very high). But if currency stability is such an important concern for exporters, then a fixed exchange rate regime will be preferable anyway (as the previous result for  $\gamma$  shows). Wage bargaining centralization, therefore, will be associated with stronger preferences for pegs on the exporting sector.

In order to illustrate the impact of these parameters on exporters' exchange rate regime preferences, compare their magnitudes, and analyze how they interact with one another, figure 2 plots the preferred regime for exporters under different levels of centralization of wage bargaining and conservatism of the central bank, keeping the remaining parameters of the model constant at  $\phi=0.8$  and  $\gamma=0.1$ . Centralization makes exporters more favorable to pegs, but the degree of aversion to inflation of the central bank is not inconsequential for this choice. Non-accommodating central banks (high  $\iota$ ), by imposing wage discipline on unions in the non-tradable sector, make a fixed exchange rate regime less costly in terms of relative wages for the exporting sector<sup>15</sup>. The more accommodating the central bank becomes (the more it cares about unemployment relative to prices), the more militant unions in nontradable become, and the more costly will it be a fixed exchange rate regime for exporters. As a result, exporters will only prefer pegs if greater levels of centralization of wage bargaining compensates for the more accommodating nature of the central bank. In other words, as the negative slope of the 'indifference' line illustrates, there are two ways of achieving wage restraint (which is what makes a fixed exchange rate regime attractive for exporters): a nonaccommodating monetary authority, and a centralized wage-bargaining system. Under high values of these two parameters, the preference for pegs of the internationalized sector intensifies.

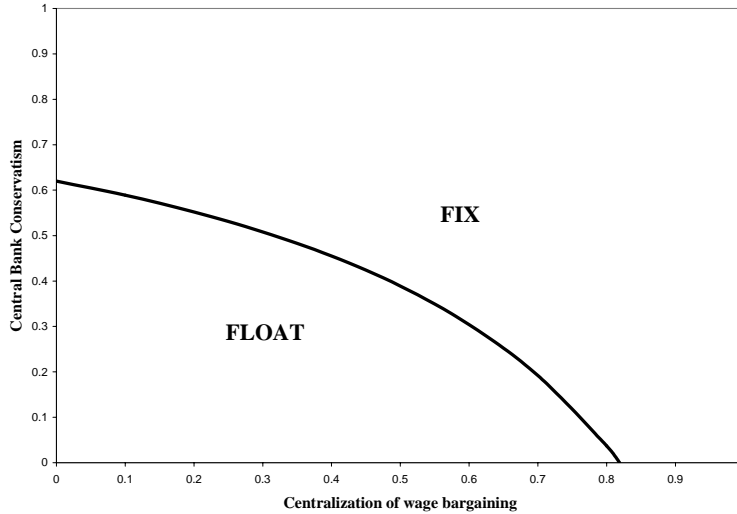
All in all, the model suggests that higher levels of wage bargaining centralization should be associated with more positive attitudes of the exporting sector towards fixed exchange rate regimes. We have also identified some factors that make floating a relatively more attractive option for this group: a smaller size of the tradable sector, an accommodating central bank which does not punish wage militancy in nontradables, or a limited sensitivity of the sector to nominal changes of the exchange rate. But at any rate, centralization of wage bargaining *lowers the conditional requirements* for which a fixed exchange rate regime is preferred by exporters: when wage setting is very centralized, a fixed exchange rate regime might become the exporters' choice even when the sector is not strongly affected by nominal currency fluctuations, the economy is internationally isolated, or the central bank is not particularly anti-inflationary.

Two fundamental empirical implications follow from this argument. First, exporters' political support for fixed exchange rate regimes should be contingent on the presence of these institutions. While they should be adamant defenders of pegs, their preference for such monetary regimes is expected to be much tempered (or even turned upside down) when these institutions are absent. In the case of European monetary unification, the implication is that the association between a high degree of international exposure of a country's economy (or, more precisely, a

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<sup>15</sup>This exemplify the fact that higher levels of central bank conservatism and centralization of wage bargaining can be understood as policy substitutes, as previously argued.

Figure 2: Conservatism of the Central Bank ( $\iota$ ), Centralization of Wage Bargaining ( $c$ ), and Exporters' Exchange Rate Regime Preference



greater degree of integration with other potential EMU members) and high levels of support for monetary unification should be mediated by the degree of coordination of wage bargaining.<sup>16</sup> Countries with strong ties with other European economies should have larger constituencies in favor of EMU the more coordinating their collective bargaining institutions are. This is the main hypothesis I test in the next section of the paper.

However, participation in the in EMU can also be understood as a partly exogenous shock (given by, say, the political relevance attached in each country to its participation in the project of the common currency). If that is the case, we can alternatively analyze the variation in the different domestic institutional responses to the country's participation in the monetary union. The theoretical framework just outlined suggests that countries facing strong pressures to enter in EMU should also experience strong pressures to centralize their collective bargaining institutions –had these not been previously centralized–, and that this pressures should have been manifested in demands made from the international sector of the economy. In the last section of the paper, a qualitative assessment of the changes in the degree of coordination of wage bargaining in Europe during the process of monetary unification allows us to assess the validity of these claims.

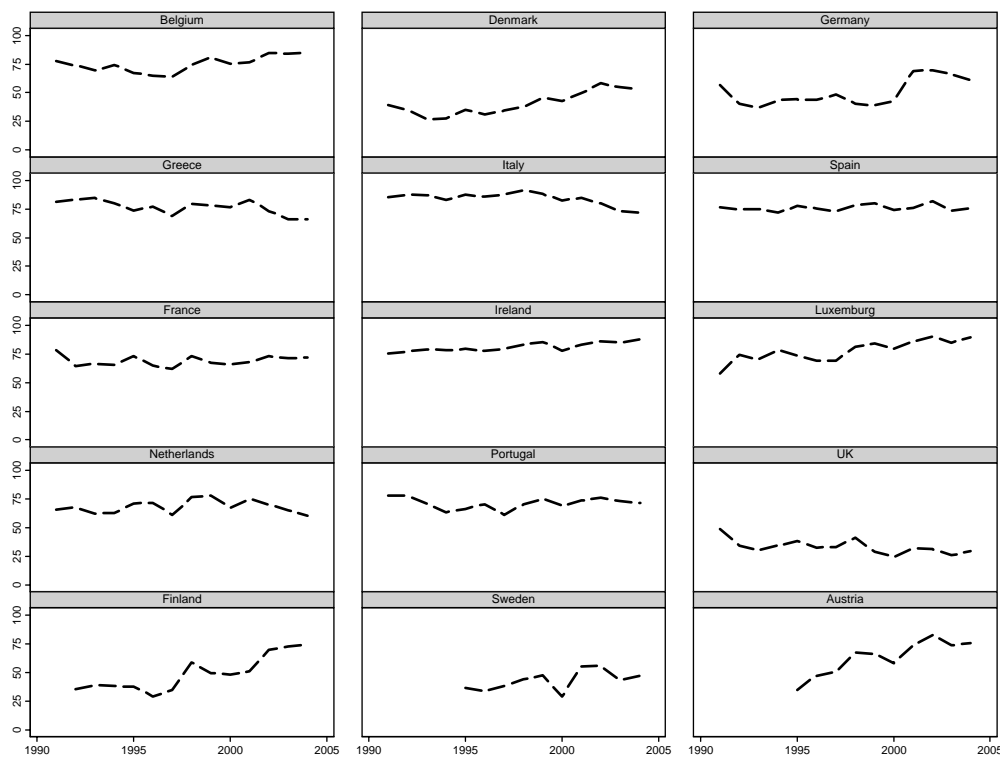
<sup>16</sup>Lack of significant variance in the other institutional dimension, monetary conservatism, prevents us from analyzing the effect of the second institutional channel.

## 2 Intra-EU trade, Coordination of Wage Bargaining and Public opinion Support for EMU

To test the first of our two main hypotheses, this section uses a dataset composed of fourteen Eurobarometer surveys,<sup>17</sup> carried out from 1991 to 2004. I use one survey per year (the one conducted in spring) because some of the other variables of interest are only conducted on a yearly basis. The indicator I use to measure support for EMU is whether the respondent is for or against the following statement: "There has to be a European Monetary Union with one single currency, the euro." Figure 3 depicts the variation of this variable by country and year.

Although there seems to be some clear differences across countries in their general level of *EMU-enthusiasm* –typically, the public tends to be more favorable to the common currency in countries traditionally considered "supporters" of the process of European integration (Southern Europe, Belgium, Luxembourg...), and less so in more Euroskeptical polities (Britain, Scandinavia)– there is also interesting cross-time variation.

Figure 3: Public support for monetary unification in EU-15, 1991-2004.



The overall level of support for monetary union has been stagnant for some countries, has

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<sup>17</sup>Euro-barometer conducts homogeneous surveys on a sample that, after making some adjustments (the sample size is about one thousand respondents per country) is representative of the whole population of the EU. Since the surveys (conducted typically twice or three times a year) are topic-specific, most of the questions asked vary from one survey to the next. Some 'core' variables are always included in the questionnaire, however. Because I pool data from different surveys, I have to rely on these subset of questions for the empirical analysis.

steadily increased in others, and has decreased in yet another group of countries. To see whether these differences across time and across time can be understood in the light of the our theory of exchange rate preferences, I run three different kinds of tests. First, I use individual-level data from the Eurobarometers surveys to see whether, after taking into account the effect of the individual characteristics of the respondents, the institutional setting and the degree of exposure to trade interact in the way predicted by the theory to determine attitudes towards the project of a common currency. Second, I look at differences in national levels of support for EMU, and I run time-series cross-sectional models to see whether the institutional effects hold. Finally, I analyze variation within country, across-time to see whether the relationship between the degree of trade integration and general attitudes towards monetary unification in countries with and without coordinated wage bargaining is different.

## 2.1 Individual Attitudes towards the Common Currency

Rather unsurprisingly, previous studies (Kaltenthaler and Anderson 2001) have noted that the single most important determinant of individual attitudes towards monetary unification is the opinion of the respondent about the whole process of integration: those holding positive attitudes towards the EU are more likely to support the adoption of a common currency. Although the diffuse level of support for the EU could be endogenous to the domestic institutional framework,<sup>18</sup> the expectation is that the institutional variables should affect preferences towards *monetary* union even after taking into account the general pro- or anti- EU attitude of the respondent. In other words, keeping the preferences for integration constant, we expect individuals with interests close to those of the exporting sector to oppose monetary integration if wage bargaining is loosely coordinated, but to increasingly support the project of a common currency in contexts with coordinating wage-setting institutions. To control for the degree of *euroenthusiasm* of the respondent, I include in the estimation two variables commonly used to that end: a variable measuring the extent to which the respondent believes that the country has benefitted from the European Union (benefit), and an dummy variable indicating whether or not the respondent thinks that membership in the European Union has been a good thing or not. In the more fully specified models, I additionally include the degree of satisfaction with the way democracy works in the respondent's country and in the European Union.<sup>19</sup> While the latter can be undeniably interpreted as a measure of europeism (and therefore is expected to be associated with positive attitudes towards the adoption of a common currency), the interpretation of the former is less clear-cut. General positive attitudes toward the political system have been associated with greater levels of support for European integration (Anderson 1998), but it has also been argued that the opportunity cost of delegating powers to supranational lev-

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<sup>18</sup>According to the logic of our model, some institutions should be expected to make supranational integration more or less palatable domestically and therefore should make regional integration less conflictual and, perhaps, more politically attractive. If that were the case, the diffuse attitudes towards the EU would be already capturing part of the institutional effects of our model.

<sup>19</sup>Since these variables are not included in all surveys, I do not include them in the first models to maximize the number of surveys used and the total sample size.

els should be lower for those dissatisfied with the functioning of the domestic political system (Sánchez-Cuenca 2000).

The baseline model also estimates the effect of the ideology of the respondent. Since extremists on the left and the right are expected to oppose monetary integration, I add a quadratic term –a negative sign in the non-squared variable and a positive sign in the quadratic one would support this inverted U-shape hypothesis. Since the costs and benefits of economic (and monetary) integration might vary by the economic position of the respondent (Gabel 2001), along with the classic demographic controls (gender, age), several measures of the socioeconomic status of the respondent are also included in the estimation: dummies for the class of the respondent’s class,<sup>20</sup> the relative income,<sup>21</sup> and the level of education.<sup>22</sup>

Model 1 in table 2 reports the results of a baseline model in which, along with all these covariates, two country-level variables are also included: the level of inflation of the country – individuals leaving in countries suffering high levels of inflations are expected to benefit the most for the anti-inflationary credibility associated with the common currency (Garrett 1993, Gartner 1997)– and the intensity of trade links with other EU member states, measured as the level of exports to other EU countries over the GDP –according to OCA theory and its political-economy corollaries, highly integrated economies should benefit the most from monetary unification.<sup>23</sup>

Regarding the socioeconomic and political controls, men and aged respondents seems to be associated with more positive attitudes towards the common currency, and in line with previous findings, the unskilled and the poor are significantly more opposed to monetary unification than the highly-skilled and the wealthier. Ideology does seem to have a curvilinear effect (although not always significant), and reassuringly, the indicators of europeism (*benefit* and *membership*) are strongly associated with favorable attitudes towards the adoption of a common currency. Inflation is positively associated with preferences for pegs, and in line with previous studies (Frieden 2002), respondents in economically integrated countries seem to be more supportive of the common currency than those living in the more ‘closed’ economies.

But according to the model presented in chapter 3, the relationship between higher levels of economic integration (which are assumed to translate into higher sensitiveness of respondents in those contexts to the preferences of exporters) and stronger preferences for monetary integration should be mediated by domestic institutions, in this case, by the degree of coordination of wage

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<sup>20</sup> A 6-type classification is used, and it refers to the class of the main income earner in the household: farmers (the reference category in all models), manual unskilled, manual skilled, low skilled in the service sector, middle-skilled service sector, skilled professional, or business owner.

<sup>21</sup> This corresponds to the respondents’ income quartile for each country/survey.

<sup>22</sup> Education is operationalized with four dummies: educated until less than 15 years of age (reference category in the models), last year of education between 15 and 18, last year of education between 19 and 21, and educated until 22 years of age or more. Because the first surveys do not report the educational level of the respondent in a way that makes it possible the construction of this variable, these variables are excluded in the baseline models.

<sup>23</sup> Since the institutional variables I use below are only available until 2000, the individual-level analysis conducted here only uses Eurobarometer surveys until that date (i.e from 1991 to 2000). Extrapolating the values of the last observed year to complete the missing institutional data does not change substantively the results. Since the total sample size in the individual-level analysis is sufficiently large even after eliminating the latest surveys from the analysis, I prefer to report here the results in which no extrapolation has been made. The situation is different in the cross-national analysis, in which, given the fewer degrees of freedom, I also use survey data from 2001 and 2004 and extend the value of the institutional variables for 2000 to the following years.



bargaining. Model (2) uses the level of coordination of wage bargaining measured by Golden and Wallerstein (2006), adjusted by the country's level of union density,<sup>24</sup> to test that contention. Because the effect of this variable is expected to mediate the effect of trade integration, I interact the degree of coordination with the level of intra-EU exports as percentage of GDP. In model (2), the coefficient of the level of exports changes sign and is now negative. Note however that in an interactive model, the raw coefficient on an interacted variable should be interpreted as the effect of that variable when the variable that is interacted with equals zero (in this case, when coordination of wage bargaining equals zero – a completely imaginary situation, since the Golden-Wallerstein indicator ranges from 1 to 5. More important for our purposes, the new coefficient on the interaction is positive and highly significant: the higher the level of coordination of wage bargaining, the stronger is the association between trade and preferences for monetary unification. In fact, it can be shown that the positive but moderate effect of the level of exports found in model (1) was obtained by averaging the strong positive effect of trade on positive attitudes toward pegs in highly coordinated wage-setting countries with the almost negligible effect of exports when the level of coordination is low. Model (3) adds a series of year dummies and while the effect of some variables changes slightly, the key coefficient of interest, the interaction between coordination of wage bargaining and the level of intra-EU exports remains strong, positive and statistically significant.

Since the interpretation of interacted coefficients in logit models is not straightforward, figure 4 uses the estimates from model (2)<sup>25</sup> in the previous table to plots the predicted probability (and 95% confidence intervals) of supporting the common currency for a manual skilled worker with average values on all other covariates of the model. When coordination of wage bargaining is one standard deviation below its sample mean ("CWB low"), changes in the degree of export intensity of the economy slightly *decrease* the probability of supporting the common currency, but these changes are not statistically significant. The situation is markedly different in economies with high levels of coordination of wage bargaining. When this variable is one standard deviation above its mean ("CWB high"), the level of exports of the country is positively and significantly correlated with stronger preferences for monetary unification. This is consistent with the theory – as exporters preferences become more important, stronger preferences for the common currency emerge only if the institutional environment (i.e. high levels of coordination of wage bargaining) guarantees wage restraint in the nontradables sector. When these institutional guarantees are absent, in contrast, increases in the expected weight of exporters' considerations do not increase at all the level of support for the common currency.

What the model cannot account for is the finding that, at low levels of export intensity, the probability of supporting the common currency is significantly higher for countries without

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<sup>24</sup>Data from union density is also from the Golden and Wallerstein's (2006) database. Results are less robust if that correction is not applied, which makes perfect sense – the real effects of centralized wage bargaining institutions increase if the workforce is represented by the peak associations than when it is not. At any rate, the next table shows that the main results are extremely robust to the use of other available indicators of the degree of coordination of wage bargaining.

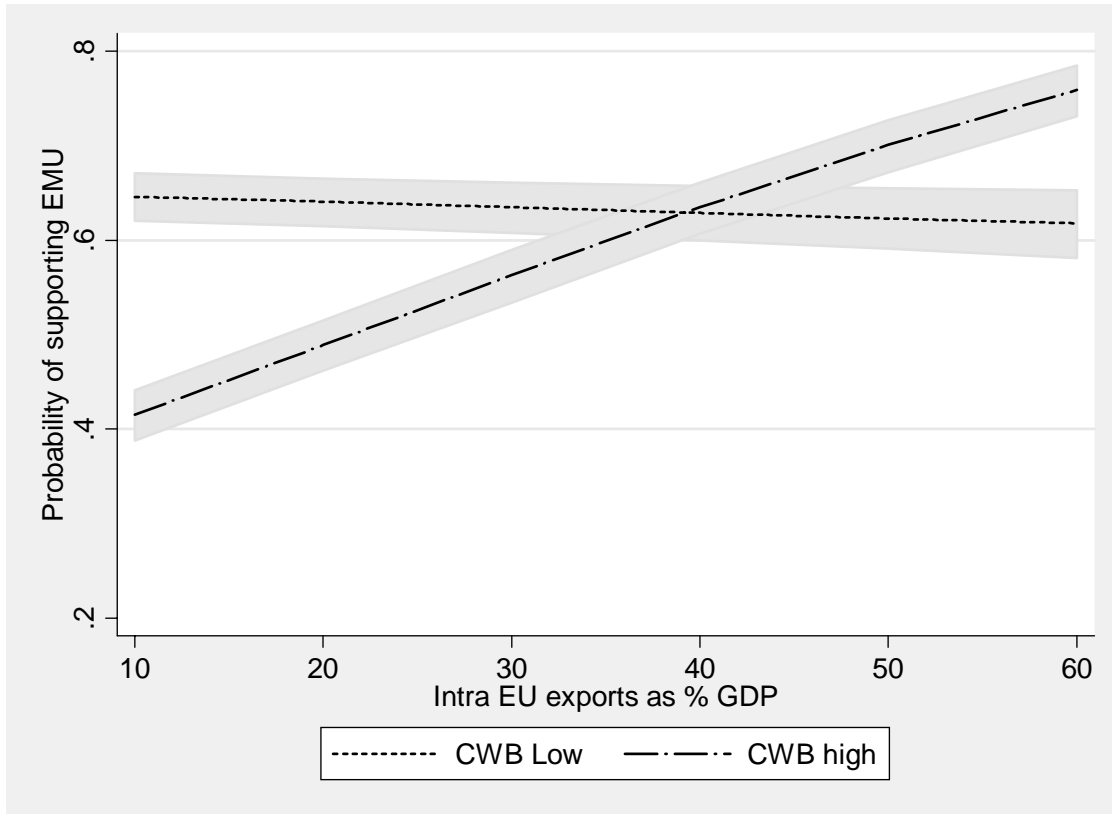
<sup>25</sup>The graph would have conveyed essentially the same message had I used any other specification from table 2 instead.

Table 2: Explaining Individual Support for a Common Currency. Logit Models. Dependent Variable: In favor of EMU. Sample: Pooled Eurobarometers from 1991-2004 conditional on data availability

	(1)	(2)	(3)	(4)	(5)
Intra EU exports	0.967** (0.075)	-0.632** (0.144)	-0.780** (0.146)	-0.020 (0.180)	-0.221 (0.182)
Coordination of Wage Bargaining		-0.603** (0.020)	-0.565** (0.020)	-0.495** (0.025)	-0.499** (0.025)
Exports * CWB		1.533** (0.093)	1.289** (0.094)	1.095** (0.109)	1.076** (0.110)
Inflation	0.073** (0.007)	0.011 (0.007)	0.121** (0.009)	-0.088** (0.013)	-0.051** (0.016)
Benefit	0.876** (0.021)	0.960** (0.021)	0.977** (0.022)	0.824** (0.029)	0.839** (0.029)
Membership	0.836** (0.013)	0.823** (0.013)	0.837** (0.013)	0.914** (0.018)	0.919** (0.018)
Satisfaction EU democracy				0.509** (0.019)	0.485** (0.019)
Satisfaction national democracy				-0.201** (0.018)	-0.211** (0.018)
Ideology	-0.079** (0.018)	-0.057** (0.018)	-0.048** (0.018)	-0.013 (0.024)	-0.009 (0.024)
Ideology squared	0.003* (0.002)	0.003 (0.002)	0.002 (0.002)	0.001 (0.002)	0.000 (0.002)
Sex (1=woman)	-0.306** (0.017)	-0.322** (0.017)	-0.335** (0.017)	-0.369** (0.023)	-0.378** (0.023)
Age	0.002** (0.001)	0.002** (0.001)	0.001* (0.001)	0.004** (0.001)	0.003** (0.001)
Relative Income	0.034** (0.008)	0.047** (0.009)	0.043** (0.009)	0.088** (0.011)	0.088** (0.011)
Unskilled	-0.348** (0.059)	-0.311** (0.060)	-0.352** (0.061)	-0.300** (0.079)	-0.336** (0.079)
Skilled	-0.036 (0.056)	-0.110 (0.056)	-0.137* (0.057)	-0.047 (0.074)	-0.074 (0.074)
Service Low skilled	-0.094 (0.057)	-0.069 (0.058)	-0.104 (0.058)	-0.035 (0.076)	-0.062 (0.076)
Service Mid Skilled	0.096 (0.056)	0.089 (0.056)	0.071 (0.057)	0.156* (0.074)	0.147* (0.074)
Professional	0.210** (0.059)	0.153* (0.060)	0.127* (0.060)	0.178* (0.079)	0.171* (0.079)
Business	0.163** (0.062)	0.105 (0.062)	0.100 (0.063)	0.174* (0.083)	0.170* (0.083)
Education 15-18				-0.116** (0.036)	-0.139** (0.037)
Education 19-21				0.093* (0.043)	0.066 (0.043)
Education +22				0.092* (0.044)	0.051 (0.044)
Year dummies	No	No	Yes	No	Yes
N	72607	72607	72607	45646	45646
pseudoR2	.1558	.1756	.1880	.2165	.2236

Constant and year dummies (when included in the estimation) not shown

Figure 4: Trade integration and probability of supporting the common currency under low and high levels of coordination of wage bargaining (see text for details)



institutions for wage bargaining coordination than for countries endowed with those institutions (the graph provides an estimate of the magnitude of that effect, but the negative and significant coefficient on the raw CWB variable, which captures the effect of CWB in a completely closed economy, already shows that). We can only speculate here, but the reason probably lies in the fact that the monetary straitjacket is more attractive (or less costly to adopt) in countries lacking institutions for macroeconomic management (such as coordinated wage-setting). In these countries, greater levels of economic integration does not increase the support for monetary unification, given the lack of enthusiasm for that policy on the part of the international sector. In contrast, integration does seem to galvanize support for monetary unification in countries with coordinated wage bargaining. Although the public opinion in these countries are not particularly eager to support monetary unification in principle (i.e. in the absence of strong trade links), once they are highly internationalized, they become the strongest supporters of the common currency.

Finally models (4) and (5) in table 2 presents the estimates when a few more covariates are added to the model –without and with year dummies, respectively. Note that the inclusion of these new variables, only available for the most recent Eurobarometers, reduces the total sample

size. The degree of satisfaction with the way democracy works at the EU level is, as expected, associated with stronger preferences in favor of a common currency, but satisfaction with the way democracy works *nationally* has the opposite effect: it increases the probability of being against the euro, a result in line with Sánchez-Cuenca’s political opportunity cost hypothesis. With respect to education, higher levels of education are associated with stronger support for EMU. After the addition of these new controls, the previous results remain essentially unchanged.<sup>26</sup>

Table 3 estimates the same models, but using two different measures of coordination of wage bargaining: the Kenworthy’s (2001, 2003) measure of coordination, with and without country dummies, and with the additional controls discussed before, and the centralization index developed by Iversen (1999), which is only available until 1993. For this last indicator, since only three Eurobarometers are used, the sample size is significantly smaller. At any rate, regardless of the indicator of coordination of wage bargaining used, the main result always holds: the level of exports is (weakly) associated with negative attitudes towards the common currency when the degree of coordination is low (the raw coefficient on the level of intra-EU exports is always negative), but with positive ones once these coordinating institutions are in place (the coefficient on the interaction is positive and highly significant).<sup>27</sup>

## 2.2 Variation in Attitudes towards EMU Within Country, Across Time

Finally, a last simple exercise to check the validity of the theory consists in examining the variation in national-level preferences towards the common currency within countries, but across time. Very much in line with our expectations, figures 5 and 6 show that there seems to be in fact a systematic difference between countries with coordinated wage bargaining and the rest.<sup>28</sup>

While in the first group of countries it can be easily seen how the national levels of support for monetary union increased as trade links with the EU accelerated during the 90s, the same

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<sup>26</sup>The only noticeable difference is the change in sign of the inflation coefficient. The new results suggest that countries experiencing higher price increases tend to be more opposed to the idea of a common currency. This is probably due to the different time-spans covered by the different specifications. The new models only use data from the latest surveys, in which the years in which the euro was already in place (since 1999) or even in circulation (2004) dominate the sample. While in the early 90s the public opinion saw the hypothetical common currency as a way to fight inflation (and was therefore particularly attractive in inflation-prone countries), once the euro was in place, the public tended to blame the common currency for price rises whenever they occur. This is probably why support for the common currency was associated with high inflation when the euro was just an idea, but with low inflation once that idea became reality.

<sup>27</sup>Obviously, the magnitude of the coefficients vary as the institutional variables are measured in different units (see appendix for descriptive statistics).

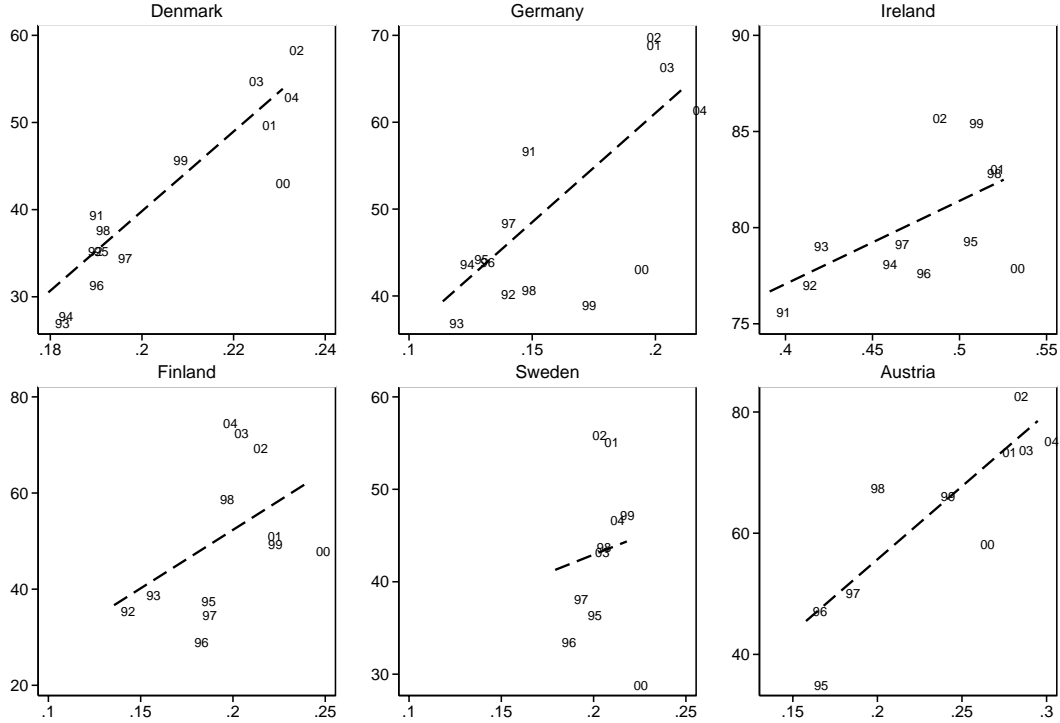
<sup>28</sup>Every measure of wage bargaining centralization yields a different ranking of countries. Subjectively, but also rather uncontroversially, I include in the ‘highly coordinated’ category the three Scandinavian countries, Ireland, a country that as I shall discuss below, has implemented since 1987 a highly centralized incomes policy, and Austria and Germany, two countries where the practice of pattern-bargaining makes them highly centralized for our purposes. In these countries, although wage negotiations occur predominantly at the industry level, wage developments through the economy follow the pace dictated by wage negotiations in the highly internationally-exposed metal sector (Ebbinghaus 2004, Traxler et al 2001). The privileged position of the metalworkers’ union in the union confederations in both countries, IG Metall in Germany and GMT in Austria secures the compliance of the rest of the economy with the interests of the exposed sector. According to our logic, the effective constraint that pattern-setting imposes on nontradables should make exporters in these countries favorable to exchange rate pegs or, in this case, to the project of monetary union. There is anecdotal but abundant evidence that this is fact the case (Collignon and Schwartz 2002: 161; Josselin 2001).

Table 3: Explaining individual support for a common currency, using different indexes of wage bargaining coordination. Logit models. Dependent variable: In favor of EMU. Sample: pooled Eurobarometers from 1991-2004 conditional on data availability

	(1)	(2)	(3)	(4)
IntraEU exports	-12.099** (0.546)	-10.660** (0.578)	-11.574** (1.036)	-70.279** (4.647)
Coordination (Kenworthy)	-0.499** (0.024)	-0.550** (0.024)	-0.575** (0.044)	
Exports*Coordination	3.156** (0.131)	2.869** (0.137)	2.865** (0.236)	
Centralization (Iversen)				-31.994** (1.668)
Exports*Centralization				213.157** (13.435)
Benefit	0.079** (0.010)	0.216** (0.013)	0.082** (0.028)	0.196** (0.023)
Membership	0.885** (0.027)	0.926** (0.028)	0.853** (0.043)	0.809** (0.064)
Inflation	0.706** (0.016)	0.706** (0.016)	0.790** (0.025)	0.733** (0.039)
Satisfaction EU democracy			0.468** (0.028)	
Satisfaction national democracy			-0.307** (0.026)	
Ideology	-0.110** (0.023)	-0.097** (0.023)	-0.076* (0.035)	-0.044 (0.053)
Ideology squared	0.007** (0.002)	0.006** (0.002)	0.004 (0.003)	-0.001 (0.005)
Sex (1=woman)	-0.371** (0.022)	-0.377** (0.022)	-0.446** (0.034)	-0.384** (0.049)
Age	0.002** (0.001)	0.002* (0.001)	0.005** (0.001)	0.001 (0.001)
Relative Income	0.030** (0.011)	0.034** (0.011)	0.096** (0.017)	0.045 (0.024)
Unskilled	-0.212** (0.069)	-0.243** (0.069)	-0.180 (0.103)	-0.138 (0.175)
Skilled Manual	0.028 (0.063)	-0.029 (0.064)	0.020 (0.095)	-0.096 (0.163)
Services Low Skill	-0.019 (0.065)	-0.090 (0.066)	-0.005 (0.097)	-0.001 (0.168)
Services Mid Skill	0.232** (0.063)	0.158* (0.063)	0.343** (0.095)	0.117 (0.162)
Professional	0.351** (0.068)	0.282** (0.069)	0.379** (0.103)	0.161 (0.171)
Business	0.275** (0.071)	0.215** (0.072)	0.348** (0.108)	0.192 (0.176)
Education 15-18			0.008 (0.055)	
Education 19-21			-0.109 (0.063)	
Education +22			-0.302** (0.063)	
Year dummies	No	Yes	Yes	Yes
N	42509	42509	20000	9191
pseudoR2	.1472	.1579	.1893	.1785

Constant and year dummies (when included in the estimation) not shown.

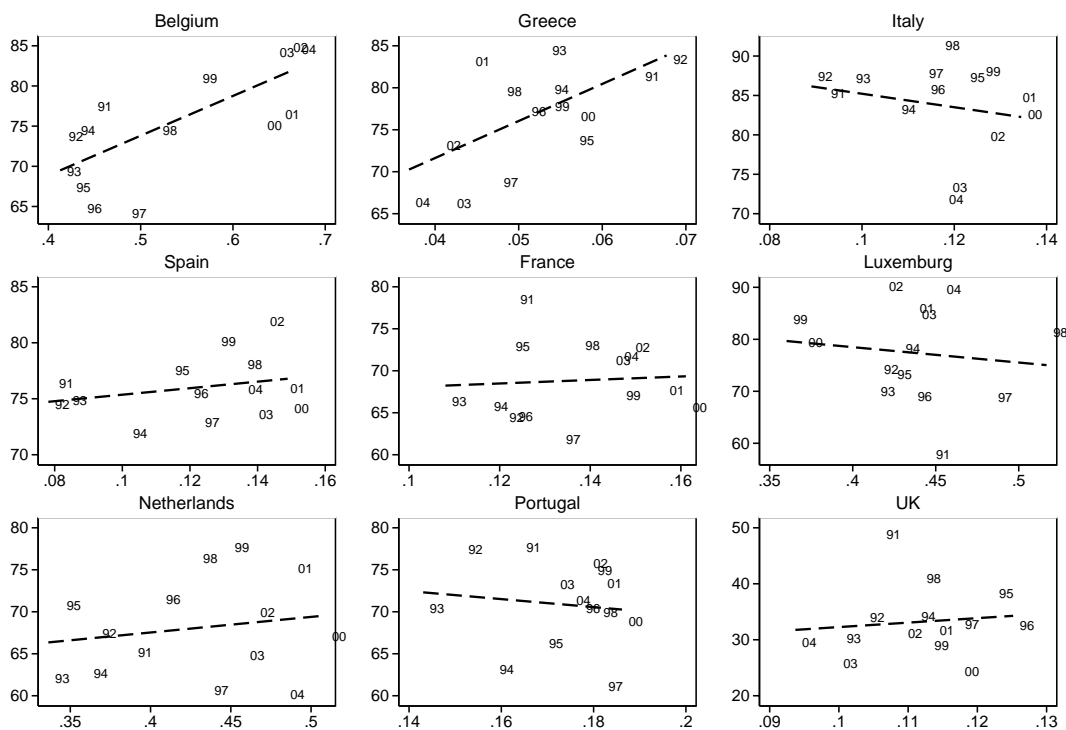
Figure 5: Intra-EU trade dependence and support for EMU in highly wage-coordinated economies



cannot be said of countries without these institutions. Only in two out of the nine countries classified as not-highly coordinated, Belgium and Greece, it is detected a positive correlation between openness and support for the euro.

One way of explaining these two ‘anomalies’ could be that the (institutionally-mediated) effects of export intensity on the level of support for monetary unification are non-linear. At very high levels of export-intensity (e.g. Belgium), the demand for stability becomes less dependent on the macroeconomic institutional framework –perhaps because the large international sector in these contexts has other ways to impose wage discipline in nontradables–. Greece, on the other hand, is a curious case in which the level of exports towards the EU has *decreased* during the 90s (probably as a result of the emergence of alternative exporting markets in Eastern Europe in the 90s). Maybe the rise in export intensity increases the support for monetary unification only when the ‘appropriate’ institutions are in place, but the fall in export intensity unconditionally dampens it.

Figure 6: Intra-EU trade dependence and EMU support in weakly wage-coordinated economies



### 3 The Emergence of Social Pacts in Europe in the Run-up to the EMU

The evidence presented below suggests that coordinating wage bargaining institutions might play an important role in securing public opinion support for EMU in highly internationalized economies. If the defense of the interests of the international sector is compatible with participation in EMU only under institutional guarantees for wage restraint, we should expect increasing pressures to adapt the institutional framework of wage bargaining in those countries without those institutions in place and committed to the common currency project. The well-accounted phenomenon of the re-emergence of social concertation in Europe in the 1990s (Pochet 1999, Goetschy 2000) suggests that this could be the case.

This literature offers some explanations for the recent trend of social concertation in Europe. Some authors have argued that the new wave of social pacts simply reflect the new balance of power between capital and labor, imposing new obligations and sacrifices on workers and their representatives (Negrelli 2000).<sup>29</sup> Others have argued that the new social pacts are in fact the consequence of increasing international competitive pressures and the desire of governments to reshape in a coordinated way the functioning of the domestic political economy (Regini 1995).

<sup>29</sup>In contrast with the classic ‘corporatist’ pacts of the past in which greater political clout was given to workers in exchange for moderating their wage demands.

For most analysts, the temporal coincidence between the emergence of these new wave of social pacts and the accession to economic and monetary union was not coincidental. In the view of many (Hancke and Rhodes 2005, Traxler 2002, Hassel 2003, Dolvik 2004), centralized social concertation the government's response to the pressing need to meet the Maastricht criteria to access the third phase of monetary union, particularly the obligation to implement welfare reform to control spending and to keep inflation in line with the most anti-inflationary countries of the EU.<sup>30</sup>

Our theoretical framework suggests yet a slightly different way of understanding the emergence of social concertation in Europe in the 1990s. In our view, participation in EMU was a key element pushing for re-centralization of wage bargaining, but its effects should not be expected to be the same across countries. More precisely, we should expect countries politically committed to participate in EMU but without coordinating wage bargaining institutions to be particularly prone to introduce new forms of centralized concertation, and these pressures to be particularly strong in economies highly internationalized. Do these theoretical expectations match the variation in the emergence of social pacts in Europe in the 1990s?

### **3.1 Where Did the 1990s Social Pacts Emerge?**

Previous comparative analyses of the emergence of social pacts have found, very much in line with our general expectations, that social pacts emerged in countries without a coordinating wage bargaining framework and experiencing high problems of inflation (Rhodes and Hancke 2005), that "might it find difficult to sustain a single currency in the future" given the lack of social consultation systems (Pochet 1999: 24), or expecting high levels inflation given their expected overexpansionary common monetary policy of the European Central Bank for these contexts (Enderlein 2006).

Although it is well-established that social pacts tended to emerge in contexts without well-established coordinating wage bargaining institutions –a finding broadly consistent with all these theories–, our argument adds two little twists: the pressure for reform will be more intense the more politically committed the country is to the EMU project, and the more internationalized the economy is. To see whether these predictions hold, table 4 reports the instances of increased centralization of wage bargaining in EU countries except Luxembourg, along with two of our explanatory variables: whether the country was an early member of EMU, and whether institutions for coordinated wage bargaining existed prior to the process of monetary unification.

Six out of the seven cases of increased centralization occur in countries committed to early entry in EMU and without previous solid wage coordinating institutional foundations. A careful look at the reform episodes in this group of countries reveal, moreover, that the more centralizing reforms took place in countries more dependent on the international sector: Ireland, Belgium, and the Netherlands. In spite of its Anglo-Saxon tradition of lack of social concertation, the

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<sup>30</sup>The Maastricht Treaty stipulated that, among other things, to be eligible for EMU accession, a country's economy must have kept for two years at least a rate of inflation not superior in 1.5 percentage points to the average of the three lowest inflation countries in the EU.



Table 4: The centralization of wage bargaining in Europe in the 1990s

Country	EMU early membership?	Pre-existing Institutions for CWB?	Centralization of wage bargaining in the 1990s?
Ireland	Yes	No	Succession of social pacts in the 1990s with centralized pay norms
Spain	Yes	No	Collective bargaining accords (1997, 2002) with wage developments guidelines
Italy	Yes	No	Concertation since 1993. Social pact in 1998.
Portugal	Yes	No	Tripartite agreements (1996, 1997) with incomes policy
Netherlands	Yes	No	Yes. Tripartite agreement about wage formation in (1993)
Belgium	Yes	No	Social pacts with wage developments guidelines (1998)
France	Yes	No	No
United Kingdom	No	No	No
Greece	No	No	No
Germany	Yes	Yes	No
Austria	Yes	Yes	No
Finland	Yes	Yes	Several incomes policy agreements in the 1990s
Denmark	No	Yes	No
Sweden	No	Yes	No

contemporary trend towards greater levels of centralization of wage bargaining in Ireland is well-documented (O'Donnell and O'Reardon 2000, 2002), and it goes back to the effort of the Fianna Fail government in 1987 to establish a national tripartite agreement between the government and the social partners to foster international competitiveness (Pochet 1999). A series of national social partnership programs followed, strengthening further the centralizing features of the wage determination process and, most importantly, setting centrally wage development guidelines for 3-year periods (O'Donnell and O'Reardon 2002: 198). Interestingly, opposition to the process, as in the case of the "Program for Prosperity and Fairness" of 1997, came from public sector unions (von Prondzynski 1998) –nontradables, according to our theoretical expectations, should be those less expected to benefit from institutionalized wage restraint. If anything, EMU membership since 1999 has only contributed to more reliance on social partnership elements of the system, given the "widespread belief that the inflationary effect of collective bargaining must be reined in, and that is easier in the context of centrally determined pay norms" (von Prondzynski 1998: 64).

Similar developments took place in the other two high-trading countries lacking centralized wage setting institutions: Belgium and the Netherlands. In Belgium, given the fragmentation of social partners and their inability in the early 90s to come up with a national agreement on collective bargaining, it was the government who actively pushed for the centralization of wage-setting (Arcq and Pochet 2000). The 1996 Law for the Promotion of Employment of 1996, which set up new norms for collective bargaining, set a clear objective of wage control, making wage developments conditional on the evolution of wages in the three main trade-partners: Germany, France and the Netherlands (Vilrocx and Van Leemput 1999). Although the reform was negotiated with the social partners, one of the two main union confederation, more nontradables-oriented, ended up rejecting the agreement.<sup>31</sup>

In the Netherlands, social pacts started earlier, with the adoption of a hard peg policy for the Dutch guilder in 1993. Employers' peak associations, concerned about the international position of the Dutch economy under such monetary regime, and with the shadow help from the government, who was willing to intervene in wage norms if necessary, set in motion the "New Course" Agreement of 1993. (Visser 1998, Hemerick et al. 2000). The agreement, in the tradition of the Wassenaar accord of 1982 (de Beus 2004), called for wage moderation in all sectors to improve international competitiveness. The Agenda 2002 program, with the EMU already in place, only extended the previous pact main wage determination provisions.

The weakness of coordinating wage bargaining institutions in Southern Europe should have made these countries the more active in setting up social pacts as a response to EMU membership. Although Spain, Portugal and Italy did have social pacts in the 1990s,<sup>32</sup> it is doubtful that the reforms introduced by national agreements in these countries went further than, say,

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<sup>31</sup>The agreement negotiated with unions was finally approved by the Christian (mainly Flemish, more centralized, less public-sector oriented) union CSC, but not by the Socialist (Wallonia-based, more public-sector oriented) FGTB.

<sup>32</sup>See (Pérez 2000, 2002, Regalia and Regini 1998). On the complex and conflictual evolution of social pacts in Portugal and Ireland, see Hancke and Rhodes (2005). I discuss at length the Spanish case below.

the Dutch or Belgian reforms –perhaps a consequence of the lower degree of international exposure of these economies. France stands as the only case in which no centralizing trend in wage formation rules took place in spite of participating in EMU and not having centralized wage bargaining institutions.<sup>33</sup>

In the remaining set of countries, there are no reasons to expect changes in the wage bargaining system: some countries opted for not participating in EMU (Britain, Denmark, Sweden), or had already institutions to guarantee wage restraint (Germany, Austria). As expected, with the exception of Finland, no country in this group experienced a re-birth of centralized social concertation in the last decade. In line with the expectations too, the evidence seems to suggest that in countries with these institutions, EMU was particularly favored by the international sector, who was interested in stabilizing the nominal exchange rates with the main trading partners (Josselin 2001, Collignon and Schwartz 2002: 156, Traxler 1998). In countries that have ultimately remained outside the monetary union but had those institutions (Sweden, Denmark) support for monetary unification came, as expected, also from the international sector. In sharp contrast, the exporting sector's support for the common currency with the most decentralized wage bargaining system (the United Kingdom) it has never been extraordinary: a series of quarterly surveys on the British manufacturing exporters shows that the level of support for the common currency evolved from about 60% in the late 90s, and has gone down steadily since. By 2005, only 31% of British exporters believed that joining the euro would be helpful for the export industry.<sup>34</sup>

The case of Finland deserves some attention, since it was the only economy with a relatively well developed system of wage bargaining coordination that went through a further strengthening of centralized institutions in the 90s. Before the 1990s, the Finnish international sector, dominated by the highly price-sensitive timber industry, had relied on periodic devaluations to maintain competitiveness (Lilja 1998). In 1991, the first proposal of a social pact came from the Bank of Finland, suggesting a peg of the Finnish Mark to the Ecu, the European basket currency. Sectoral unions rejected the pact, and in less than six months, wage developments had already forced a new devaluation of the currency (Kaupinnen 2000). This failure made clear at the eyes of the government that, for the new export-diversifying economic strategy based on the European market to work, more institutional guarantees for wage moderation had to be built into the collective bargaining system. A series of social pacts ensued. Since 1995, a centralized Incomes Policy Committee defines the norm for wage increases depending on inflation and productivity (Hancke and Rhodes 2005: 22). With the advent of the euro, the perceived need to

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<sup>33</sup>Hancké and Rhodes (2005: 11-12) suggest that the central role the state plays in the French case (by setting minimum wages, or affecting wage developments in the large public sector) could substitute for the absence of institutionalized negotiations between social partners.

<sup>34</sup>DHL *Quarterly Export Indicator*. Interestingly, opposition to the euro came above all from the most price-sensitive producers: 25% of the exporters in the textile sector believed that joining the common currency would be actually "unhelpful" for British exports. The results of another survey conducted by the British Chamber of Commerce in 2003 shows similarly a relatively skeptic attitude of business towards the common currency. A plurality of them (49%) supported the government's "wait and see" policy, with a full 12% outright rejecting accession. Perhaps more tellingly, less than half of the firms believed that participation in EMU would increase the competitiveness of the British industry. (BCC 2003).

coordinate wages across the economy has become even more important (Uusitalo and Variainen 2005). Just as the Irish, the other big European internationalizing economy, the Finns were well aware that the export-oriented economic strategy –in which EMU membership was a key element– required a strengthening of wage coordinating institutions.<sup>35</sup> Under our theoretical framework, this made perfect sense.

All in all, the findings reported here differ very little from the conventional wisdom on the emergence of social pacts in Europe: in the face of the increased pressure to guarantee wage restraint under EMU, governments and social partners in countries lacking coordinating wage bargaining institutions had to resort to new social pacts to fill this institutional gap. We have noted here, however, that these pressures resulted in more encompassing pacts in those countries more dependent on the performance of the international sector. Most notably, the two cases that reinforced the most the centralizing features of their industrial relation systems, Finland and Ireland, were –very much in line what we should expect from our theory– highly open countries in which EMU membership had become a cornerstone of their export-oriented economic strategy.

## 4 Conclusions

The process of monetary unification in Europe offers a good opportunity to test some key implications from the institutional theory of exchange rate preferences developed in the beginning of the paper. Because the creation of a common currency can be interpreted as the adoption of an extremely fixed exchange rate regime, the political demand for monetary unification should be expected to vary according to the economic and institutional characteristics of the country. As the degree of central bank ‘conservatism’ can be assumed as exogenously fixed at the same level for all potential EMU candidates by virtue of the legal requirements imposed by the process of EMU itself, the only institutional effect in this case should be that of coordination of wage bargaining –exporters should become firmer defenders of a common currency for Europe in highly coordinated economies, but less so when wage setting is decentralized. An analysis of preferences for monetary unification based on Eurobarometer data does suggest that high-trading countries (where the preferences of the average citizen should reflect more closely those of the exporting sector) are indeed more supportive of monetary unification as wage bargaining becomes more centralized. The evidence shows that this institutional effect is robust to the inclusion in the model of other potentially important determinants of the level of public opinion support for a common currency, such as the degree of inflation or debt of the country, or the general attitudes of the respondent toward the whole process of integration.

Given the central role that these institutions play in securing a high level of support for the common currency in internationalized economies, it is hardly surprising that the process of monetary unification in the economically integrated Europe has been accompanied by sev-

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<sup>35</sup>Indeed, Hassel’s (2003) main conclusion in his comparative assessment of social concertation in the 90s is that the Irish and Finnish experiences were the ones that "most closely resemble old style incomes policy of the 1970s."

eral attempts to re-centralize wage bargaining in many European countries. This is remarkable, given the arguably increasing tension between these institutions and the workforce management flexibility required in postindustrial economies (Iversen 1999). But this puzzling trend can be easily explained with the help of our theory: without institutional guarantees for wage restraint in nontradables, the exposed sector will easily turn its back on the project of monetary unification. In fact, as it has been shown in the last section of the chapter, one of the main purposes (if not the central one) of the social pacts that have mushroomed in Europe since the late 90s has been to impose wage discipline to guarantee the competitiveness of the exposed sectors. Under a common currency –which effectively meant that competitive devaluations were off the table–, wage militancy in non-exposed sectors will automatically translate into a dangerous appreciation of the real exchange rate (i.e. a fall in the price of tradables relative to nontradables). To prevent it, European governments, employers and unions engineered central pacts to guarantee wage restraint across the economy. And the most dependent the economy was on the exposed sector, the greater the demand for centralization. The Spanish experience in the last decade illustrates well this phenomenon. The highly uncoordinated nature of the Spanish labor relations system did not marry well with the constraints imposed by EMU membership –particularly after the experience of the 80s, which showed how the nontradables sector could ‘exploit’ a fixed nominal exchange rate, much to the harm of the Spanish economy’s competitiveness. Increasingly centralized wage bargaining patterns (including even explicit orientations about wage formation) consensually emerged. In spite of rising doubts about what this type of centralized pacts can and cannot achieve, the Spanish experience suggests that social pacts can prove effective in promoting wage moderation, and have become central to guarantee the sustainability of EMU participation in countries without well-established institutions for coordinating wage bargaining.

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