

Comparative Institutional Advantage in the European Sovereign Debt Crisis

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Abstract: Excessive fiscal spending is commonly cited as a root of the current European sovereign debt crisis. We develop a more comprehensive hypothesis which better accounts for systemic differences towards EMU countries' exposure to market speculation: the rise of competitiveness imbalances which contributed to national imbalances in total borrowing. We outline that one driver of competitiveness divergence is a country's capacity to limit sheltered sector wage growth, relative to wage growth in the manufacturing sector. We posit that corporatist institutions which linked sectoral wage developments together in the surplus countries provided them with a comparative wage advantage vis-à-vis EMU's debtor nations, explaining why the EMU core has emerged relatively unscathed from market speculation during the crisis despite that fact that some of these countries had poor fiscal performances during EMU's early years. Using a panel regression analysis, we demonstrate that rising differentials between public and manufacturing sector wage growth, as well as wage governance institutions which weakly coordinate exposed and sheltered sectors, are significantly correlated with export decline. We also find that weak governance institutions are significantly associated with more prominent export decline inside a monetary union, compared to outside of monetary union.

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What systemic factors explain why some sovereigns in Europe's Economic and Monetary Union (EMU) have fallen victim to heavy market speculation amidst the current economic crisis, while others have remained unscathed? While many acknowledge the role of the 2008 financial crisis as the catalyst which initiated Europe's debt crisis, recent debate has questioned whether (systemic) roots of the crisis were established before this event. Amongst various Europe's political leaders and policy makers, the fiscal recklessness hypothesis (that the fiscal crises within the EMU periphery were driven by unsustainable public borrowing prior to the crisis) has gained significant traction. Though this hypothesis explains why financial markets doubt Greece and Italy's, capacity to repay its debts, it fails to carry to other EMU cases. Spain and Ireland, with better fiscal positions than Germany up until the crisis, were subject to harsh market speculation. Belgium, in contrast, with persistent high public debt, has seen little shift in its bond yields over the past three years. Indeed, once Greece, a unique outlier whose poor fiscal performance is tied to endemic corruption and rampant tax evasion, is removed from the EMU landscape, fiscal performance prior to the crisis becomes a poor predictor of the variation in current nominal interest rates on long-term government bonds, a common indicator used to gauge a country's default risk. Rather, indicators tied to *competitiveness* – export share growth and the average current account balance prior to the crisis – fare better in explaining current diversity in bond yields across EMU.

In this paper, we provide an institutional hypothesis which attempts to explain variation in EMU member-state exposure to the current crisis. Extending recent insights on divergences in current accounts as a source of variation in crisis exposure, we posit that countries with corporatist institutions that tie wage growth in sheltered sectors to sectors exposed to trade have encountered little speculative pressure from markets, despite their pre-2008 fiscal condition, as these

institutions helped them maintain competitiveness, producing positive trade balances and current account surpluses, and hence reducing the need for significant international borrowing. Countries without functional corporatist institutions which tie wage-setters in sheltered sectors to those in exposed sectors lost competitiveness vis-à-vis their corporatist neighbors, incurred trade/current account deficits and hence had to rely more heavily on international borrowing. In failing to integrate sectoral and national labor markets alongside monetary policy, the EMU project has created an asymmetric union not only between monetary and fiscal integration, but also between monetary and labor market adjustment. The lack of labor market integration across EMU member-states has forced countries to rely upon national corporatist institutions in order to adjust. In other words, corporatism is a crucial institutional advantage which differentiates EMU's creditors from its debtors.

Making sense of Europe's sovereign debt crisis

Within the young debate about the origins of the European debt crisis, two camps have emerged to explain the divergence in market speculation exposure across E(M)U's sovereigns. The fiscal position (Buiter and Rahbari, 2010; Lane, 2012), or what Burda (2013) terms the "fundamental interpretation", has identified the Euro crisis as a consequence of fiscal excesses prior to the 2008 financial crisis. While Buiter and Rahbari (2010) argue that the current crisis resulted from a perfect storm of macroeconomic problems, including lax banking regulation and the end of asset booms and bubbles, the authors cite that one primary contributing factor to the crisis in Southern Europe, and other economies, was the pursuit of "strongly pro-cyclical behaviour by the fiscal authorities during the boom period" (1). These countries should have pursued fiscal surpluses and structural reforms in EMU's early years, but instead amassed significant public debts, which increased further as these sovereigns were forced to respond to the 2008 financial

crisis, and resulting contagion, by offering financial assistance to failing banks (Burda, 2013; 3). The fiscal argument gained traction quickly among European decision-making circles because it provided an accurate assessment of Greece, the epicenter of the crisis. Given the steady deterioration of its fiscal indicators during EMU's early years, Greece was a perfect example of how poor macroeconomic mismanagement, coupled with corrupt and dysfunctional political institutions, made an untenable fiscal position worse once the global financial crisis was in full swing (Georgios and Prodromos, 2010; Arghyrou and Tsoukalas, 2011 Featherstone, 2011). However, as contagion spread, this fiscal explanation transplanted itself on other EMU Southern economies through political and medial discourse, who were (falsely) chastized for their high fiscal spending, generous pension systems and lower working hours (Weeks, 2011; Petry, 2013).

Others supporting the fiscal interpretation have attributed peripheral governments' binges in fiscal borrowing to two design flaws of monetary union. Through its one-size-fits-all monetary policy, EMU provided low nominal interest rates to its members, offering sovereigns in peripheral economies that did not have access to such low rates in the early and mid-1990s with cheap credit (Lane, 2012; Burda, 2013). Between 1990 and 1998, average long term nominal interest rates in EMU's five peripheral economies were 11%, compared to 7.4% in EMU's core economies. Under the EMU's pre-crisis years (1999-2007), average long term nominal interest rates dropped to 4.6% for EMU's peripheral economies and 4.4% for its core economies (EU Commission AMECO, 2014). Theoretically, variation in nominal interest rates within Europe's currency union should have been more pronounced to reflect premia for default risk. However, markets, and then-ECB President Jean-Claude Trichet, discounted for the best case scenario for nominal convergence even when some nations were showing signs of fiscal deterioration (Baskaran & Hessami 2012; Burda, 2013). The result was that EMU's peripheral economies

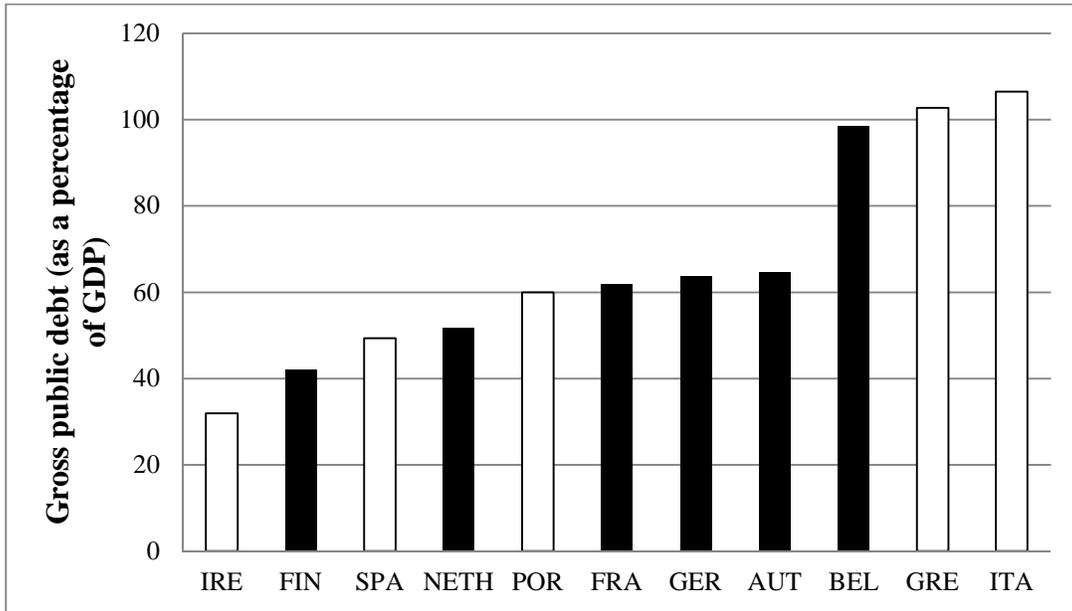
continued to take advantage of cheap credit, further worsening their fiscal balances as the global financial meltdown grew near.

A second fundamental flaw in EMU's design that further exacerbated fiscal borrowing in the South was the poor enforcement of EMU's Stability and Growth Pact (SGP) (Hodson, 2011; Baskaran & Hessami 2012). Under the SGP, which stipulated strict budgetary rules over the short and medium term, the European Commission was endowed with the legal capacity to monitor fiscal performances of member-states, and punish them with nominal fines if they failed to address deficits in excess of 3% of GDP. Yet though the Commission and ECB were granted authority in the EU Treaty to monitor and penalize fiscal spending within member-states, they proved ineffective at its enforcement. The reluctance of EU financial ministers to consider the use of financial penalties on the SGP's large member-state transgressors, France and Germany, ultimately spelled the end of the SGP's credibility (Hodson, 2011; 58). Once France and Germany succeeded in relaxing the SGP's preventative and corrective arms in 2005, there was little confidence in the EU's enforcement of fiscal responsibility, sending further signals to high deficit nations that excessive fiscal spending could be tolerated under monetary union.

While the fiscal hypothesis clearly outlines why EMU's poor design may have contributed to overborrowing in countries for whom market premiums for government debt would otherwise be much higher outside of a currency union, a second origins argument for the European debt crisis, the competitiveness hypothesis, doubts that overborrowing problems rested solely in the public sector. Indeed several within the competitiveness camp question whether some governments that are current targets of heavy market speculation, such as Spain and Ireland, could be defined as "fiscally reckless" given their consistent budget surpluses and low public debts prior to the crash. Examining a basic presentation of the fiscal facts (Figures 1 and 2 present EMU pre-crisis debt

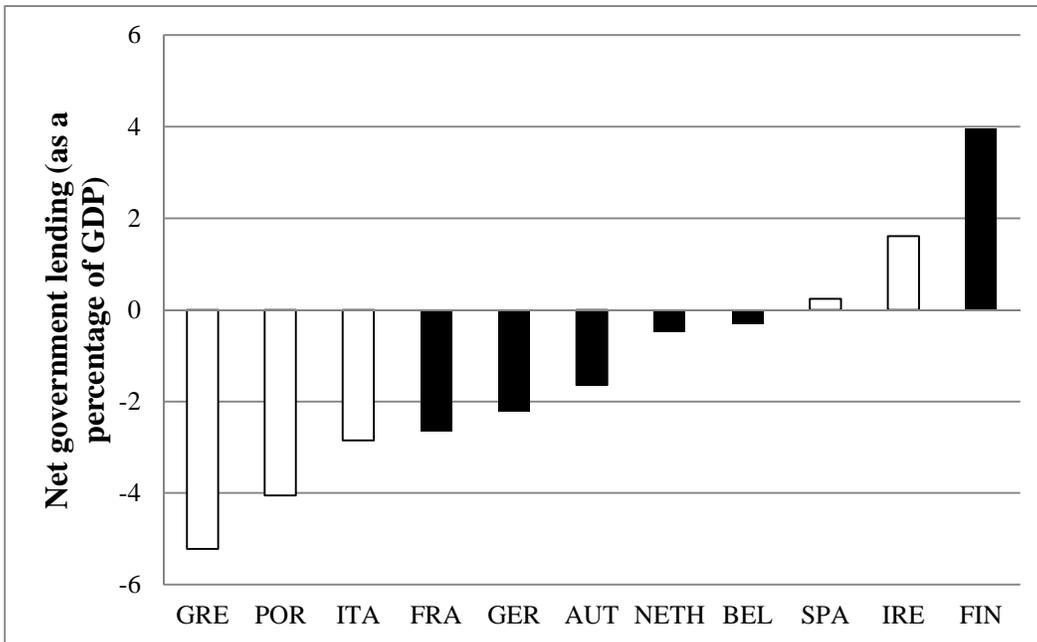
and net fiscal lending averages for EMU's original members, except Luxembourg), though pre-crisis government debts in Greece and Italy were high, so too were they high in Belgium, which was largely spared from severe debt downgrades by rating agencies after 2008 – in November 2011, Standard & Poor's downgraded Belgium's credit rating not because of its 100% debt to GDP ratio prior to the crisis, but because it had not formed a coalition government in over 500 days since the 2010 general election (Martens, 2011). Likewise, Ireland and Spain exhibited some of the best public debt balances in the pre-crisis EMU years, and along with Portugal, even outperformed Germany in maintaining low public debt prior to 2008. A similar story emerges when comparing annual net government lending, or fiscal deficits/surpluses. Though Greece, Italy and Portugal conform to the fiscal argument, Spain and Ireland ran consistent budgetary surpluses in EMU's pre-crisis years. Likewise, Germany, which its politicians are quick to highlight as the poster child of pre-crisis fiscal responsibility, had average public deficit levels not significantly different from Italy between 1999 and 2007. While the pre-crisis experiences of Greece and Italy, as well as Finland and the Netherlands, may conform well to the fiscal view, this hypothesis fails to provide a systematic explanation for why EMU's peripheral economies *en masse* became subject to market speculative attack, while EMU's core economies did not.

Figure 1: Pre-crisis public debt performance (1999-2007 average)



White/black bars indicate peripheral/core economies. Source Data: EU AMECO Database (2014)

Figure 2: Pre-crisis net public lending performance (1999-2007 average)



Source Data: EU AMECO Database (2014)

The competitiveness position provides a more encompassing explanation for the tragedy of EMU, focusing on the rise of persistent imbalances among the current accounts of the Euro-

zone's member states: current account and trade deficits of a country are symmetrically mirrored by the *total* external borrowing (both public *and private*) in the capital account by the balance of payment identity (Obstfeld and Rogoff, 2009; Wihlborg et al., 2010; Belke and Dreger, 2011; Bibow, 2012; Shambaugh et al, 2012). According to the competitiveness argument, divergence in speculation by financial markets was not tied to a country's fiscal, but total solvency, which was reflected in the size and persistence of a country's current account deficit during EMU's first decade (see Giavazzi and Spaventa 2011). Current account deficits can be sustainable if external borrowing is used to enhance productivity in the export sector. If a country is able to transform enhanced productivity into export growth in future periods, future current account surpluses imply that the inter-temporal solvency constraint will hold (external borrowing under current account deficits are repaid once current account surpluses emerge). However, if foreign borrowing primarily goes into non-tradable sectors, which are not capable of producing future export surpluses necessary to correct current account deficits, in times of crisis, markets will view these persistent imbalances as unsustainable and a signal of possible solvency problems. In considering both public and private elements of borrowing, this argument highlights why the fiscal camp offers neither a necessary nor a sufficient condition for speculative attacks; countries with high public debt can avoid speculative attacks if they produce significant private savings (i.e. Germany) in the capital account, while countries with public savings can be subject to aggressive speculation if they produce significant (external) private dissavings (Ireland and Spain).

Divergences in current accounts in the Euro-area between the North and South, which grew persistently since EMU's introduction in 1999, can be explained by divergent trade balances and national competitiveness. Because monetary union removes nominal exchange rates between

Euro-zone member-states, real exchange rate (RER) competitiveness is determined by relative inflation: countries with lower inflation hold more advantageous real exchange rates, and hence greater propensities for trade surpluses, than those with higher inflation. Wage moderation, the suppression of real wage growth below productivity growth, is an important determinant of national inflation, due to the heavy influence of wage growth on prices; if countries are able to exercise wage moderation, this implies that they will have a lower inflation rate, and therefore, under monetary union, a more competitive real exchange rate vis-à-vis their trading partners. Under a fixed monetary system, where the majority of trade is intra-regional⁴, wage moderation pursued by one group of countries (the EMU core) to enhance their relative price competitiveness position, serves as a “begger-thy-neighbor” policy vis-à-vis those (the EMU periphery) that are unable to deliver wage moderation (Perez-Caldentey and Vernengo, 2012; Bibow, 2012). In other words, since the majority of trade occurs within EMU itself⁵, current account/trade surpluses in EMU’s Northern economies are symmetrically reflected by current account/trade deficits in EMU’s Southern economies.

In order for nations to hold a trade surplus vis-à-vis deficit nations, the former must lend money to the latter via the capital account. Under a balance of payments equilibrium (assuming a negligible balance item), nations with trade deficits must finance these deficits via borrowing from surplus countries, hence realizing a positive capital account balance. Under EMU, savings in the countries with trade surpluses were invested in capital and consumption projects (mostly in real-estate, which further fueled wage spirals) in countries with trade deficits (Gros, 2012; Giavazzi

⁴ While northern EMU economies have been more successful at expanding their non-EU export market shares than southern economies, given the specialization of the former in high value-added goods, trade between both groups of countries predominated within the EU during EMU’s pre-crisis era.

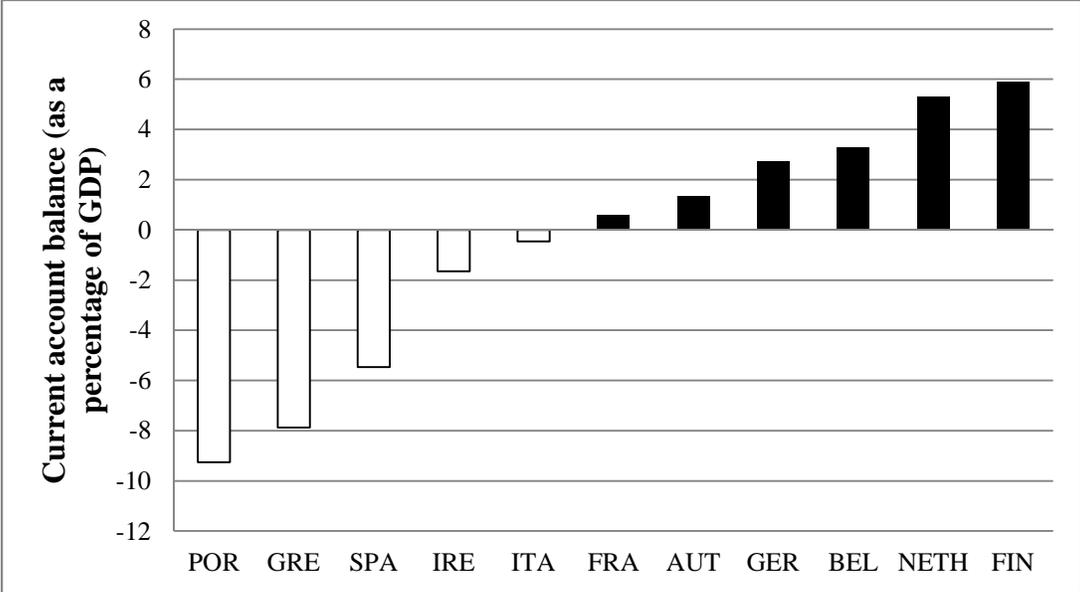
⁵ Trade with EMU’s Northern economies was quite substantial for the South, although less so for Ireland, in the 2000s. In 2005, imports from Austria, Belgium, Finland, France, Germany and the Netherlands accounted for 40% of Italy’s and Spain’s total imports, 30% of Greece’s and Portugal’s imports, and 20% of Ireland’s imports (IMF Direction of Trade Statistics, 2008a).

and Spaventa, 2011; Holinski et al, 2012). Because banking systems within Europe possessed a heavy home bias, the excess savings in EMU's northern economies was predominantly invested in the Euro-zone itself (Gros, 2012). As peripheral countries witnessed consumption (and real-estate) booms, their competitiveness further deteriorated vis-à-vis the core where wage moderation was strictly enforced. Though such imbalances could easily be rectified outside of monetary union via a depreciation of the exchange rate, a common currency removed this option, pushing the burden of adjustment onto labor costs. The South's failure to adjust its labor costs, and hence its external public *and* private borrowing imbalances, vis-à-vis the North preceding the crisis, prompted markets to doubt its solvency, attaching higher interest rate premiums to its sovereign bonds once the crisis was in full swing.

Unlike the fiscal thesis, empirics measuring pre-crisis current account balances better separate the EMU's core economies from its struggling peripheral neighbors. Figure 3 presents average current account balances between 1999 and 2007. When EMU's Northern economies ran current account surpluses on average in the run up to the crisis, its Southern economies ran current account deficits. Rather than merely explaining Greece and Italy, the competitive argument also helps generalize the experiences of Ireland, Spain, and Portugal, which witnessed stagnant export growth, larger current account deficits under the pre-crisis EMU period and speculative attack in the late 2000s, as well as that of Germany and Belgium, which witnessed current account surpluses in the pre-crisis EMU period, despite their high debt balances. Moreover, current account performances dramatically reverse for some EMU countries between 1999 and 2007. Germany entered EMU with a 1.3% (of GDP) current account deficit, yet it entered the 2008 global financial crisis with a 7.4% current account surplus. In contrast, Ireland, a quintessential small-trading nation, entered EMU with a healthy 1% current account surplus, yet by 2007, had

amassed a 5.4% current account deficit and a capital account surplus (or net external borrowing) of 5.5% of GDP to finance it (Eurostat, 2014; EU AMECO Database, 2014). Though the robustness of descriptive statistics in explaining crisis exposure should be taken with a grain of salt, the comparison of fiscal facts and competitiveness facts is striking; where the former fails in systematically separating countries most influenced by the crisis from those who have largely been shielded from it, the latter does a better job at drawing a hard line in the sand.

Figure 3: Pre-crisis current account performance (1999-2007 average)



Source Data: Eurostat (2014)

The competitiveness argument raises an important argument in the debate on the origins of the European debt crisis. It is rather weak, however, in providing specific explanations as to what fostered internal adjustment, and hence current account surpluses, within the EMU core (Austria, Belgium, Finland, France, Germany and the Netherlands) which were largely absent within the EMU periphery (Greece, Ireland, Italy, Portugal and Spain), even though many within this camp acknowledge that adjustment lies predominantly within the realm of labor-markets (Stockhammer, 2011; Holinski et al., 2012). Given the multitude of data (and theoretical)

arguments that emphasize how corporatist institutions can promote comparative advantage via wage restraint, this lack of analysis into the institutional determinants of competitiveness divergence in the Euro-Area is extremely puzzling.

The balance of this paper explores if corporatist institutions facilitated export performance in the North, and whether these institutions intensified any comparative advantages under monetary union. Our argument rests on the analysis of how wage dynamics between sectors, specifically those exposed to and sheltered from trade, influence national inflation and hence competitive developments, which we assume is an important determinant of member-states' exposure to the crisis. The EMU core possessed corporatist collective bargaining institutions which tied wage developments in sheltered sectors to those in the exposed, thus limiting the inflationary potential of the sheltered sector and enhancing national competitiveness. The EMU periphery, on the other hand, lacked these institutional links between the sheltered and exposed sector – consequently wages-setters in sheltered sectors in the EMU periphery, not subject to a competitive constraint like their exposed sector counter-parts nor to an institutional constraint like their sheltered sector counter-parts in the EMU core, were able to push for inflationary wage increases which produced adverse consequences for national inflation and hence relative price competitiveness.

A Corporatist Comparative Advantage: Explaining the Core's Success and the Periphery's failure

We begin our analysis with several assumptions. First, we assume two sectors in each of the countries: an exposed sector, whose wage setters are under competitive pressure to constrain wage growth given high exposure to trade, and a sheltered sector whose wage setters face a lax

competitiveness constraint on wage developments, given the relative absence of competitors. While these two sectors may not embody the entirety of a country's labor force, we assume their combined weight in the economy, both in terms of employment and output, is significant enough that wage developments would influence national inflation either directly via the influence of wages on price mark-up strategies, or indirectly via the influence of wages demand expansion/contraction. The real exchange rate, which is a function of a country's nominal exchange rate, e , multiplied by the ratio of the domestic to foreign price level ($RER = e \frac{P_d}{P_f}$), indicates the relative competitiveness of a country vis-à-vis their trading partners (the nominal exchange rate for regions that share a common currency is equivalent to 1, meaning that the real exchange rate between members of a currency union is purely a function of relative prices). If a country is successful in keeping its inflation rate low relative to its trading partners, it realizes a competitive depreciation in the real exchange rate which should improve its trade balance. If a country's national inflation rate exceeds that of its trading partner, the result is, all other things equal, an appreciation in the real exchange rate which worsens its trade balance.

We assume that wage-setters within the exposed sector face strong incentives to pursue wage moderation (i.e. real wage growth below or at least on par with productivity growth) because their employment status is heavily tied to a competitiveness constraint: if wages in this sector are too high, this will lead to a reduction in employment via one of two employer strategies. If employers pass wages increases onto prices, their products become more expensive vis-à-vis their trading partners, yielding lower demand from international buyers, leading ultimately to a reduction in production. Likewise, if employers do not translate wage increases into rising prices, they compensate for an increased wage bill by shedding employment. Regardless of which

strategy is chosen, the end result is the same – reduced employment – thus providing exposed sector wage-setters the incentive to limit their wage demands.

Wage developments within the sheltered sector, in contrast, are not directly influenced by trade, and wage setters in this sector therefore face a considerably less restrictive competitiveness constraint, if they face one at all (in the case of some public services). Despite the fact that wage-setters within sheltered sectors do not face similar incentives to enforce wage moderation as those in the exposed, wage developments within the sheltered sector can influence a country's trade developments given its weight within national inflation: the aggregate national inflation rate is the weighted average of the two separate inflation rates in the exposed and in the sheltered sectors. Re-writing a country's real exchange rate as a composite of sectoral prices ($RER = e^{\frac{[\alpha P_{d,e} + (1-\alpha)P_{d,s}]}{[\beta P_{f,e} + (1-\beta)P_{f,s}]}}$, where α/β and $(1-\alpha)/(1-\beta)$ are the weights associated with the exposed and sheltered sector prices in the domestic and foreign inflation rate, respectively), sheltered sector wage growth becomes an important determinant of the real exchange rate via its impact on sheltered sector prices. The presence of a competitiveness constraint limits the mark-up power of employers in the exposed sector, keeping price developments relatively similar across countries. Hence, real exchange rate developments are crucially linked to a country's capacity to limit wage inflationary pressures within the sheltered sector. This places wage-setters in the exposed sector in a precarious position vis-à-vis their counter-parts in the sheltered sector: while the former have high incentives to moderate wages in order to remain (price) competitive, the latter do not but are able to influence the employment status in the former if they price wages high enough to influence national inflation.

Because external competitiveness imposes a hard constraint on the export sector, the exposed sector will set wages taking into account relative wage inflation rates in the main trading partners (if it does not, in this analysis, it simply exacerbates the inflationary pressures arising from the sheltered sector). There are, therefore, three logically possible worlds. The first is the one in which inflation in the sheltered sector is kept under control through legal, political and institutional means. In this world, the aggregate wage inflation rate will not rise, and almost certainly not faster than elsewhere, and relative competitiveness is likely to be reasonably stable or improving. Such a competitiveness state can also produce fiscal effects, if these institutions assist governments with managing public sector wages (although evidenced by Germany and Belgium's fiscal performance, moderated public sector wage growth is not a sufficient condition for low *aggregate* fiscal balances). The second scenario is one in which wage inflation in the sheltered sector is relatively high, but this is compensated by a combination of high productivity and moderate wage growth in the exposed sector, proportionate to the relative sizes of both sectors. Aggregate inflation remains modest, and the country's export sector does not price itself out of export markets. The third possible world, finally – a variation on the second, but with very different outcomes – combines a sheltered sector with inflationary wages and an exposed sector, which, hard as it may try, is unable to bridge the relative inflation gap. Aggregate inflation thus increases, the real exchange rate appreciates, and export prices rise, with the concomitant negative effect on competitiveness. The dualistic nature of wage-setting incentives and wage moderation objectives by sector is not a novel idea and has been highlighted by many (Iversen, 1999; Garrett and Way, 1999; Franzese, 2001; Johnston and Hancké, 2009). Many in this literature have analysed how wage bargaining institutions can bridge these diverging incentives by tying wage-determination in non-tradable sectors to tradable ones (Franzese, 2001; Baccaro

and Simoni, 2007; Traxler and Brandl, 2010; Brandl, 2012). Among these arguments, Traxler and Brandl (2010) and Brandl (2012) offer perhaps the most empirically sophisticated analyses. They outline how bargaining regimes that constrain the public sector – the key ‘sheltered’ sector, with strong trade unions and collective bargaining systems set against a background of employment security – influence national wage outcomes. Collective bargaining systems that transfer significant trend-setting power to employers and unions in the exposed sector, they argue, are particularly effective at limiting wage growth in sheltered sectors. Building on these insightful analyses, we identify how bargaining systems influence wage differentials between exposed and sheltered sectors and how these wage differentials produce divergent competitive performances within EMU. Wage-setting regimes that discipline wages in the sheltered sector should, all else equal, witness lower inflation, a more competitive real exchange rate, and hence a trade/current account surplus, which implies, by the balance of payments identity, that these regimes will be external net creditors. Wage setting regimes where sheltered sector wages are allowed to significantly surpass those in the export sector should witness higher inflation, a less competitive real exchange rate, and hence a trade/current account deficit, which requires external borrowing in order to finance it.

The industrial relations and political science literature on sectoral corporatism have demonstrated convincingly that bargaining regimes which are most conducive towards limiting sheltered sector wage growth are those which grant considerable trend-setting authority to exposed sector wage-setters, the state, or both. Both actors favour limited sheltered (especially public) sector wage growth: the former in the name of competitiveness, the latter in the name of fiscal prudence. Such bargaining regimes that transfer considerable powers to exposed-sector actors and/or the state assume three shapes. The first are pattern bargaining systems where the exposed sector

leads national wage developments (Traxler and Brandl, 2010). The second consists of state-coordinated systems that enforce a permanent wage law or permanently encourage export-sector led bargaining (Johnston and Hancké, 2009). And the third consists of incomes policies/wage pacts with a high degree of ‘governability’, which grant employers and/or governments considerable authority in the determination of sectoral/national wage settlements⁶ -- typically this is introduced by governments after unsuccessful attempts to produce wage moderation, usually as a result of the weakness of peak associations (Brandl, 2012). In contrast, bargaining regimes that have been identified as limiting the role of the exposed sector and the state in collective bargaining are: peak-level bargaining systems where wages are determined by peak-organizations which embody multiple sectors (Traxler, Blaschke and Kittle, 2001); and, incomes policies or wage pacts with a low degree of governability (Brandl, 2012). The influence of a no coordination wage bargaining regime on wage growth differentials is more difficult to predict. Under Baumol’s framework (Baumol and Bowen, 1965) if wage-setters in an uncoordinated regime individually agree on wage settlements that are equivalent to inflation (or average wage increases), differences in sectoral wage growth should be nil. If, however, wages are set according to a neo-classical framework, where workers receive pay awards based upon their productivity, these regimes may produce negative pay differentials between sheltered sectors and manufacturing, as the former tends to consist of service sectors where productivity growth is lower than in goods-based production sectors.

Peak-level bargaining, as Traxler and Brandl (2010) point out, can be more conducive towards delivering sheltered sector wage restraint if the exposed sector is given a leading voice and

⁶ Examples of this include governments determining national wages unilaterally (via legislation enforcing a nationwide wage-freeze) or wage pacts that grant export-sector employers or the state considerable authority in agenda setting.

governance within peak-organizations is high – this explains the success of the Danish case in the 2000s, with the rise of five major wage bargaining cartels where wage setting was anchored by the industrial/manufacturing cartel. Incomes policies and, more notably, wage pacts with high governability are not usually permanent systems of coordination, as these policies and pacts tend to be more reactive by nature, often introduced and (in some cases unilaterally) implemented by governments in times of crisis. Nevertheless, they are frequently used to correct wage inflation across the entire economy, including sheltered sectors. Hence, this method of coordination is very effective at producing temporary wage moderation in the sheltered sector (even if persistent government intervention may not be acceptable to social partners in the long run). These types of systems, and where they exist among developed economies, are outlined in Table 1 below.

Table 1: Wage moderation by bargaining regime and country (2000-2007)

<i>Collective bargaining institutions that are conducive towards consistent sheltered sector wage moderation</i>	<i>Collective bargaining institutions that are conducive towards temporary or permanent sheltered sector wage excess</i>
<p><i>Pattern-bargaining systems (export-sector led):</i> Austria, Germany, Japan, Sweden</p> <p><i>State imposed wage laws/state coordination (export-sector led):</i> Belgium, France</p> <p><i>Incomes policies/Wage Pacts with high governability:</i> Finland (2000, 2002-2006), the Netherlands (2002-2004)</p>	<p><i>Peak-level bargaining:</i></p> <ul style="list-style-type: none"> - HG: Denmark, Finland (2001 & 2007), Netherlands (2000-2001, 2005-2007) - LG: Italy, Portugal, Spain <p><i>No coordination:</i> Australia, Canada, United Kingdom, United States</p> <p><i>Incomes policies/wage pacts with low governability:</i> Ireland</p>

LG indicates low governability, HG indicates high governability

Source: Brandl, 2012, Visser, 2011, European Industrial Relations Observatory (various articles – Greece is excluded due to the lack of available data regarding its sectoral bargaining dynamics)

Given the distinction in the literature on how bargaining regimes influence sheltered sector wage developments, i.e. via power dynamics between the state/exposed sector and the sheltered sector, we expect EMU countries with bargaining regimes in the left-hand column of Table 1 (Austria,

Belgium, Finland, France, Germany, and between 2002 and 2004 the Netherlands) to exert greater levels of wage moderation compared to countries in the right-hand column (Spain, Italy, Portugal, Ireland and the Netherlands between 2000 and 2001 and after 2005). Consequently, countries with bargaining regimes that are conducive towards wage moderation will witness lower national inflation, and therefore a more competitive real exchange rate and hence improvements in their export shares.

Empirical Model and Variable Selection:

We select a 17 country sample from 1980 to 2007, which includes ten countries that adopted the euro in 1999 (Austria, Belgium, Finland, France, Germany, Ireland, Italy, the Netherlands, Portugal, and Spain – Greece is excluded due to the lack of sectoral data, although we would expect it to conform to the hypothesis above)⁷ as well as seven non-EMU participants (Australia, Canada, Denmark, Japan, Sweden, the UK, and the US). We included non-EMU countries within our sample so that we can analyze possible interaction effects between sheltered sector wage suppression and EMU (see results in Table 5). If we only considered interaction effects between the EMU dummy and corporatist institutions for EMU countries, one could argue the effects may be driven by common post-1999 timing effects rather than monetary union itself; the inclusion of non-EMU countries provide a counter-factual to developments happening in EMU countries after 1999. We selected 2007 as the end of our sample for two reasons: sectoral data which we use for the construction of one of our primary independent variables of interest only exists until 2007 for the 17 countries in this analysis. Additionally, given the extraordinary circumstances

⁷ Our selection of 17 rather than the 23 OECD countries is due to the data limitations of the EU KLEMS sectoral database. This database provides wage, employment and productivity developments by sector for all EU 25 countries, but only a limited number of non-EU countries (all of which we include in our sample).

since the crisis for countries with non-competitive bargaining systems and the regulation of wages in the sheltered sector, we sought to remove this exceptional period after 2007.

From our proxies of competitiveness above in the bivariate analysis, we select export share growth rates⁸ as our primary dependent variable of interest, rather than current account dynamics, because the export share is the primary channel in the current account in which our theory operates. Countries with a competitive real exchange rate should witness greater export expansion than those with an uncompetitive real exchange rate. We select two independent variables as proxies for sheltered sector wage suppression: 1.) an output based measure, the (lagged) differential between sheltered and manufacturing sector wage growth (results presented in Tables 3 and 4); and, 2.) an input measure, a crude sectoral wage coordination institution dummy which embodies the value of 1 if a country possesses one of the three bargaining institutions that enforce sheltered sector wage moderation, i.e. pattern bargaining, state-imposed coordination or incomes-policies/wage-pacts with high governability (results presented in Table 5). Sheltered sector wage suppression is defined as the difference in the growth rate of the hourly wage in the sheltered sector and the growth rate of the hourly wage in the exposed sector.⁹ Hence what is captured is the degree to which sheltered sector wage setters have over/undershot wage developments within the (exposed) manufacturing sector, with positive/negative developments indicating that sheltered sector wage setters have managed to secure more/less lucrative wage gains than their exposed sector counter-parts. We emphasize, however, that when regressions are run with real sectoral wage dynamics as the primary independent variables in separate models,

⁸ Growth rates are used for the dependent variable as well as most independent variables given the violation of time-stationarity within panels.

⁹ Because we are selecting the difference in sectoral wage growth within countries, real versus nominal wage distinctions become irrelevant, since both sectors are exposed to the same national inflation rate).

both real sheltered sector wage growth and real exposed sector wage growth are significantly associated with export decline.¹⁰

We selected an employment-share weighted composite of the public administration and defense, education, and health and social work sectors - ISIC categories L, M and N, respectively – given these sectors heavily sheltered status from both foreign (and domestic) competition. For the exposed sector, we selected manufacturing (ISIC category D) as a proxy. Wage and employment data are taken from the EU KLEMS database. Table 2 presents average wage growth differentials between our sheltered sector proxy and exposed sector proxy by bargaining regime between 1980 and 2007. The most persistent suppression of annual wage growth in the sheltered sector relative to the manufacturing sector is found in bargaining regimes that are characterized by pattern bargaining, state-imposed wage laws/export-sector coordination, and incomes policies/wage pacts with high governability. State-imposed coordination was the most effective at delivering sheltered sector wage suppression: wage growth in the sheltered sector was, on average, 1.14% below that in manufacturing each year between 1980 and 2007, implying the emergence of a 11.4% wage gap in favor of the manufacturing sector over a ten-year period). Peak-level coordination with low governability and incomes policies/pacts with low governability proved the least effective at delivering sheltered sector wage suppression.

¹⁰ We do not present these results here, but they are available on the corresponding author's website.

Table 2: Differences in sheltered sector and manufacturing sector annual wage growth by bargaining regime, 1980-2007 average

<i>Collective bargaining institutions that are conducive towards consistent sheltered sector wage moderation</i>	<i>Collective bargaining institutions that are conducive towards temporary or permanent sheltered sector wage excess</i>
<i>Pattern-bargaining systems (export-sector led): -0.66% annual difference</i>	<i>Peak-level bargaining:</i> - HG: -0.40 annual difference - LG: 0.32% annual difference
<i>State imposed wage laws/state coordination (export-sector led): -1.14% annual difference</i>	<i>No coordination: -0.29% annual difference</i>
<i>Incomes policies/Wage Pacts with high governability: -0.41% annual difference</i>	<i>Incomes policies/wage pacts with low governability: 0.24% annual difference</i>

Note: HG and LG refer to high and low governability

Regarding measurement of the sectoral wage coordination institution dummy, this institutional proxy of sheltered sector wage suppression took the value of 1 for countries which possess bargaining institutions that are conducive towards limiting sheltered sector wage settlements (pattern bargaining, state imposed coordination, and incomes policies/wage pacts with high governability) at time t , and 0 if otherwise. Six countries within our 17 country sample (Canada, France, Germany, Japan, the UK, and the US) maintained the same bargaining institutions over the 1980-2007 period. For this reason, we conducted these regressions without country fixed effects, in order to avoid perfect multicollinearity problems within these six panels. Data on bargaining regimes from 1980 to 2003 was taken from Brand (2012), while we updated data from 2004-2007 using wage pacts data from Visser (2011) and various articles from the European Industrial Relations Observatory.

We employ a fixed effects panel regression model of the 17 countries above from 1980 to 2007 (as mentioned above, for the sectoral wage-governance dummy regressions, we employ a random effects model) to test the relationship between sheltered sector wage suppression and

export performance. The selection of growth rates, rather than levels delivers an added benefit for fixed effects; using a growth rate for our main dependent and most of our independent variables, rather than levels, makes the use of country fixed effects less problematic, as these dummies crowd out country-specific effects which are common in levels (see Plümer, T, Troeger, V., and Manow, 2005). Our results in Tables 3 and 4 remain significant and robust when we select random effects as an estimator¹¹, suggesting that they do not merely capture within-country, time variations, but also (in the random effects models) cross-national variation. Our empirical model can be summarized as follows:

$$\Delta(X/GDP_{i,t}) = \alpha_{i,t} + \beta_1(\text{SheltWageSup}_{i,t-1}) + \Sigma \beta_k X_{k,i,t} + \Sigma \beta_m Z_{m,i,t} + \varepsilon_{i,t}$$

$\Delta(X/GDP_{i,t})$ is the year-on-year change in country i 's export share at time t , $\text{SheltWageSup}_{i,t}$ is the degree of sheltered wage suppression – measured either as the difference in log changes in the sheltered sector and manufacturing hourly wage for country i at time $t-1$ (results presented in Tables 3 and 4), or as the crude sectoral wage-governance dummy (results presented in Table 5) – $\Sigma X_{k,i,t}$ is a vector of economic controls and $\Sigma Z_{m,i,t}$ is a vector of institutional controls. Data for export shares were taken from the EU's AMECO database. For the sectoral wage differential independent variable, the (lagged) difference is used to avoid endogeneity problems with the dependent variable, as well as multicollinearity problems with terms of trade shocks and changes in the real exchange rate which we incorporate as controls (see below).

Regarding economic controls, we include year-on-year changes in net government borrowing, in order to test whether fiscal developments play a significant role in export expansion Table 3, columns III-VI), terms of trade shocks, total factor productivity (TFP) growth, and real exchange

¹¹ We do not present results from a random effects estimator below, but they are available on the corresponding author's website.

rate shocks as controls. Though our theory of how sectoral wage dynamics influences export performance operates primarily via the real exchange rate, we include it as a separate control to account for real exchange rate movements that may be influenced by developments other than sectoral wages (such as the prices of non-labor factor inputs). We excluded terms of trades shocks from the wage-governance dummy regressions, given their slight, but significant, correlation with the dummy variable across all panels. Real interest rate shocks were purposefully excluded given their relationship by identity with real exchange rate shocks, via the interest rate parity condition.¹² Terms of trade, TFP, net government borrowing and real exchange rate data all stem from the EU's AMECO database.

For institutional controls, we included the level (not change) of social benefits as a percentage of GDP to account for Rodrik's (1998) hypothesis that highly open countries have large welfare states as an insurance mechanism against market risk; the proportion of legislative seats held by right parties to account for the fact that these parties may be more likely to pursue pro-business and pro-trade policies which favor export-growth; wage bargaining centralization; and the employment share of the sheltered sector (employment in sectors ISIC categories L, M and N as a percentage of total employment) to account for Garrett and Way's (1999) hypothesis that larger sheltered (public) sectors produce greater wage inflation and hence hamper macroeconomic outcomes. We do not control for general wage coordination, given the (obvious) collinearity it poses with our sectoral coordination proxies, as well as its lack of distinction between different *types* of sectoral coordination, which we feel is more important in influencing competitiveness. Wage centralization data stem from Visser (2011), right-wing legislative seats stem from Swank (2006), social benefits as a percentage of GDP were constructed from EU AMECO data, and

¹² Given that all countries within the sample are developed and possess limited capital controls, it is fair to assume that this condition would hold.

sectoral employment share data stem from EU KLEMS.¹³ Given the presence of auto-correlation for the baseline regressions (columns I in Tables 3 and 5), we incorporated a panel-specific Prais-Winsten transformation into our models, which both corrects for auto-correlation and absorbs less time-series dynamics than a lagged dependent variable (Plümper et al, 2005).¹⁴ Panel corrected standard errors are used to control for heteroskedasticity within panels (Beck and Katz, 1995).¹⁵ We also incorporate n-1 time dummies into our regressions in order to control for unobserved time effects.

In the first series of regressions, we test the preliminary relationship between the (lagged) difference in sheltered and manufacturing wages and growth in the export share with several important controls (TFP growth, terms of trade shocks and changes in the real exchange rate, both of which are not included in the same models together due to multicollinearity problems¹⁶). Models I-III in Table 3 present the results using the (lagged) difference in public and manufacturing wages as the primary independent variable of interest, while Models IV-VI present results where the (lagged) change in net government borrowing is the independent variable of interest.

¹³ An online data appendix, available at the corresponding author's website, outlines the sources of all variables and how they were constructed, as well as provides the data and replication commands.

¹⁴ The LR Chi-squared statistics for the Wooldridge test for panel autocorrelation for the sectoral wage differential and governance dummy baseline models were 29.9 (p-value=0.000) and 13.17 (p-value=0.002), respectively.

¹⁵ Tests for panel heteroskedasticity were run without time dummies given the failure for the generalized least squares iterations to achieve convergence. LR tests for the baseline models (column I in Tables 3 and 5) were highly significant (122.30, p-value=0.000 and 83.13, p-value=0.000, respectively) indicating a high likelihood of panel heteroskedasticity.

¹⁶ Surprisingly, total factor productivity growth displayed no significant correlations with the economic controls. It was significantly, negatively correlated with the lagged sheltered sector wage differential variable (pair-wise correlation of -0.090, p-value=0.049), but not to an extent that would cause serious multicollinearity problems.

Table 3: The influence of sectoral wage differentials on export growth

Independent Variables	I	II	III	IV	V	VI
<i>(Lagged) Difference in Pub and Man Wage Growth</i>	-0.19*** (0.067)	-0.18*** (0.066)	-0.20*** (0.066)			
<i>(Lagged) Difference in Net Government Borrowing</i>				0 (0.000)	0 (0.000)	0 (0.000)
<i>Total Factor Productivity Growth</i>		-0.159 (0.192)	-0.202 (0.183)		-0.141 (0.151)	-0.166 (0.143)
<i>TOT Shocks</i>		-0.47*** (0.075)			-0.39*** (0.065)	
<i>REER Shocks</i>			-0.26*** (0.038)			-0.28*** (0.030)
<i>Constant</i>	2.839* (1.598)	0.181 (1.460)	-0.021 (1.186)	6.447*** (1.574)	2.956** (1.403)	0.941 (1.142)
<i>Observations</i>	474	473	474	433	433	433
<i>Wald Chi-Squared Statistic (P-value)</i>	0.000	0.000	0.000	0.000	0.000	0.000
<i>R-squared</i>	0.302	0.363	0.381	0.312	0.354	0.403

Dependent variable is the year-on-year change in the export share (X/GDP). Model used was an OLS, including a panel-specific Prais-Winsten AR1 term, from 1980 to 2007. N-1 country and time dummies included but not shown. Panel corrected standard errors are in parenthesis. *, **, and *** indicate significance on a 90%, 95% and 99% confidence level.

From Table 3, the (lagged) differentials between sheltered and manufacturing wages produces a significant dampening effect on export share growth, even when accounting for terms of trade, TFP, and real exchange rate shocks. This implies that countries where sheltered sector wage growth exceeds wage growth in the manufacturing sector will, ceteris paribus, witness shrinkages in their export shares, while countries where public sector wage growth is kept below manufacturing wage growth witness expansions in their export shares. The second interesting result that emerges in Table 3 is that changes in net government borrowing do *not* have a significant or pronounced influence in terms of beta coefficient magnitude on export share growth. In other words, countries which increase fiscal deficits year-on-year do not behave significantly differently in terms of export performance than countries which increase fiscal surpluses.

Results in Table 4 demonstrate the robustness of the difference in sheltered sector and manufacturing hourly growth wage variable while incorporating further institutional controls into the baseline model; in all models, the sectoral wage differential variable maintained consistency in terms of beta magnitude and significance. Other variables perform as expected (TOT shocks and RER shocks are associated with export share contraction while social benefits as a percentage of GDP are associated with export share expansion, per Rodrik's hypothesis¹⁷) or fail to hold significance (bargaining centralization). TFP growth possessed a (unexpected) negative beta coefficient, although it lacked significance in eight of the ten models it was included in between Tables 3 and 4 (if random effects estimators are used, TFP growth lacks significance in all models, suggesting that sheltered sector wage differentials, terms of trade shocks and real exchange rate shocks are more important predictors of export expansion). Partisanship also behaved unexpectedly, with more legislative seats held by right parties indicative of export decline, although it failed to retain its significance when real exchange rate shocks were included as a control (if a random effects estimator is used, it loses significance in Model II, Table 4, but is significantly and positively associated with export share growth in Model IV of Table 4). Contrary to Garrett and Way's results, sheltered sector employment share exhibits an insignificant relationship with export share growth, indicating that it is not the size of the public sector that matters per se, but whether its wage demands can be controlled by the exposed sector.

¹⁷ Social benefits as a percentage of GDP retains its significantly positive beta coefficient if random effects are use, although its beta magnitude is reduced.

Table 4: Robustness results, the influence of sectoral wage differentials on export growth

Independent Variables	I	II	III	IV	V	VI
<i>(Lagged) Difference in Shelt and Man Wage Growth</i>	-0.13** (0.057)	-0.19*** (0.057)	-0.18*** (0.067)	-0.12** (0.055)	-0.22*** (0.057)	-0.20*** (0.067)
<i>Total Factor Productivity Growth</i>	-0.168 (0.146)	-0.328** (0.160)	-0.163 (0.194)	-0.262* (0.141)	-0.172 (0.163)	-0.211 (0.186)
<i>TOT Shocks</i>	-0.35*** (0.066)	-0.51*** (0.077)	-0.47*** (0.076)			
<i>REER Shocks</i>				-0.27*** (0.034)	-0.23*** (0.033)	-0.26*** (0.038)
<i>Social Benefits (% of GDP)</i>	0.617*** (0.127)			0.645*** (0.119)		
<i>Legislative Seats Held by Right Parties</i>		-0.042** (0.016)			-0.024 (0.016)	
<i>Wage Centralization</i>		-3.596 (5.181)			0.967 (4.737)	
<i>Public Sector Employment Share</i>			0.046 (0.044)			0.008 (0.046)
<i>Constant</i>	-3.999** (1.593)	2.308 (1.792)	-1.107 (1.969)	-5.71*** (1.571)	0.873 (1.668)	-0.262 (1.810)
<i>Observations</i>	412	435	470	412	436	471
<i>Wald Chi-Squared Statistic (P-value)</i>	0.000	0.000	0.000	0.000	0.000	0.000
<i>R-squared</i>	0.381	0.406	0.365	0.433	0.383	0.381

Dependent variable is the year-on-year change in the export share (X/GDP). Model used was an OLS, including a panel-specific Prais-Winsten AR1 term, from 1980 to 2007. N-1 country and time dummies included but not shown. Panel corrected standard errors are in parenthesis. *, **, and *** indicate significance on a 90%, 95% and 99% confidence level.

Regression results for the high sectoral wage-governance dummy are presented in Table 5. As mentioned above, we exclude the terms-of-trade shock variable due to slight, but significant, collinearity between it and the governance dummy, as well as country fixed effects given perfect collinearity between them and the governance dummy within six panels. We conduct similar robustness checks as above, but contrary to the (lagged) sectoral wage differential variable, which lacked a significant interaction term with an EMU dummy, we also incorporate an interaction term between the wage-governance dummy and an EMU dummy to test whether the

competitiveness enhancing effects of high sectoral wage-governance were magnified under monetary union.

Table 5: The influence of high sectoral wage-governance on export growth

Independent Variables	I	II	III	IV
<i>High Sectoral Wage-Governance (1=yes; 0=no)</i>	1.150** (0.456)	1.071** (0.503)	1.306** (0.531)	0.789 (0.492)
<i>Total Factor Productivity Growth</i>	-0.12 (0.140)	-0.033 (0.160)	-0.109 (0.187)	-0.175 (0.136)
<i>REER Shocks</i>	-0.210*** (0.033)	-0.197*** (0.034)	-0.214*** (0.040)	-0.209*** (0.031)
<i>Social Benefits (% of GDP)</i>	0.199*** (0.073)			0.193*** (0.074)
<i>Legislative Seats Held by Right Parties</i>		0.013 (0.008)		
<i>Wage Centralization</i>		1.668 (1.067)		
<i>Sheltered Sector Employment Share</i>			0.024 (0.032)	
<i>EMU Dummy</i>				-1.881* (1.045)
<i>EMU Dummy * High Sectoral Wage-Governance</i>				1.711** (0.856)
<i>Constant</i>	-3.263*** (1.205)	-1.966*** (0.739)	-1.367 (0.928)	-2.976** (1.210)
<i>Observations</i>	414	437	471	414
<i>Wald Chi-Squared Statistic (P-value)</i>	0.000	0.000	0.000	0.000
<i>R-squared</i>	0.362	0.337	0.332	0.370

Dependent variable is the year-on-year change in the export share (X/GDP). Model used was an OLS, including a panel-specific Prais-Winsten AR1 term, from 1980 to 2007. N-1 time dummies included but not shown. Panel corrected standard errors are in parenthesis. *, **, and *** indicate significance on a 90%, 95% and 99% confidence level.

The high sectoral wage-governance dummy, like sectoral wage differentials, displays consistency in terms of significance and sign across in Table 5. Given results from columns I-III, countries that possess one of the collective bargaining institutions where either export sector wage setters or the state constrains the wage outcomes of sheltered sector employees tend to exhibit an annual increase in their export shares that is 1-1.3% higher than countries that lack

these institutions. In addition to the direct effect, the wage-governance dummy also suggests an interesting, significant interaction with the EMU dummy (model IV, Table 5), implying that monetary union seems to have magnified the influence of high wage-governance institutions on export growth. While the hierarchical high governance dummy term just lacks significance at the 90% level (p-value = 0.109), its interaction with the EMU dummy is significantly associated with export share growth. This offers some evidence that the influence high wage governance between the exposed and sheltered sectors on export performance is conditional on monetary regime. According to Model IV (Table 5), countries with high governance institutions witness a 1.7% annual boost in export share growth, but only if they are in monetary union, suggesting that countries which possessed institutions that suppressed sheltered sector wage growth witnessed an exclusive corporatist comparative advantage under their pre-crisis EMU tenure. *Discussion and Conclusion:*

The results above provide evidence that countries in which wage developments in the (private and public) sheltered sector are kept in check relative to those in the exposed sector report export gains. If sheltered sector wage excess emerges, the reverse happens: competitiveness falls and exports decline. The effects are the combination of current account surpluses and capital account deficits for the creditor nations (primarily in the north of Europe) and current account deficits accompanied by borrowing (in both the public and the private sector) in the others.

Importantly, this effect appears to operate through a (wage) price level effect, with domestic inflation eroding export competitiveness, thus leading to current account deficits, and not a fiscal effect, in which expanding budgets produce excessive public (and private) borrowing. Equally importantly, while the effect existed before the introduction of the euro, the fixed exchange rate regime heralded by EMU has reinforced this dynamic because of the absence of a safety valve in

the form of nominal exchange rate depreciations, which helped EMU economies correct excessive current account imbalances in the past. The crisis of EMU since 2010 may therefore primarily be a result of differences in wage-setting systems between north-western Europe and southern Europe, in which the former have been able to keep aggregate inflation under control through wage coordination (and concurrent supply-side productivity improvements), while the latter appear unable to do so. It is emphatically not a crisis of fiscal profligacy: budget balances show up as insignificant factors in our analysis. They are, if anything, symptoms of the problem, not causes.

Wages thus have been crucial in terms of inter-country adjustment in the European political economy since at least the introduction of the Maastricht criteria, if not before. Prima facie, this seems to confirm a central element in the standard interpretation of monetary unions and its challenges – the theory of optimal currency areas (OCA). According to that view, fixing exchange rates, interest rates, and fiscal policy inevitably implies that the bulk of adjustment runs through labor market flexibility. A closer look at the results here suggests that the world is not only more complex than these arguments suggest, but that this view covers, at best, only one possible world. The economies that have performed well under EMU have been those that relied on wage moderation – but essentially of the type provided by a combination of strong labor unions, wage coordination, and skills-based export competitiveness – almost the exact institutional opposite of the flexible labor markets proposed by OCA protagonists.

Wage moderation, however, is not an unmitigated blessing, as the inter-country dynamics of wage setting in EMU make clear. All other things equal, competitiveness gains in one group of countries as a result of real exchange rate depreciations must imply competitiveness losses as a result of real exchange rate appreciations elsewhere. In effect, by targeting unit labor cost growth

below that of their trading partners, and using relatively tight systems of wage coordination as a means to do so, the creditor countries have imposed current account deficits on the others who lacked the institutional capacity to moderate wages. This does not bode well for the future of the single currency. For even if the current crisis can be contained, for example through a dramatic fiscal restructuring of the euro-zone, that would only buy time. The structural dynamics associated with the current account divergences that led to the crisis, which themselves have deep roots in the different types of wage setting, will reassert themselves if they continue to remain unaddressed.

This has important implications for the policies currently (in 2012 and 13) adopted by the EU, especially in its Macro-economic Imbalances Procedure (MIP). The MIP is asymmetric, in the sense that the language regarding current account imbalances focuses solely on deficits, with little or no consideration that in a currency union which is (mostly) a closed economy, significant current account surpluses in one country imply significant current account deficits elsewhere. While some adjustment might be welcome, it is hard to see how ‘internal devaluations’, implying massive relative wage moderation in the deficit countries, can solve the problem on their own – assuming that beggar-thy-neighbour policies ever can. Without a parallel reflation or demand expansion in the creditor countries, particularly in Germany and among its well-performing neighbours, the problem is almost intractable and Europe is likely to witness stagnant growth and high unemployment in the South for quite some time. Put differently, alongside arguments for structural adjustment in the south, the European Commission should also consider using its influence to argue for significant wage increases or fiscal policies which increase disposable income, such as reductions in income and labor taxes, in Germany and the North for several years to come in order to allow southern Europe the space to adjust.

That, of course, is wishful thinking, if the arguments that have been coming from Berlin since the onset of the euro-crisis are anything to go by. Whilst there has been some muted mention of higher wages among German trade unions, the general tenor of German policy makers (and in its wake, in its satellites in northern Europe as well) has been in favour of more, not less, austerity and continued wage moderation to strengthen exports. In addition, it is not entirely clear what actually would happen if Germany went on an expansionary course: the ECB's relatively dovish stance might – and according to its mandate almost certainly will – change, since rising German inflation is very likely to entail higher aggregate inflation throughout EMU. A reaction by the ECB thus would all but eliminate the gains made through 'symmetric adjustment', but with an additional price for Germany to pay in the guise of higher interest rates. Germany's reluctance to engage in expansive policies might be informed by a misguided understanding of its own interests, as many observers have pointed out, but it is also built on a hard political-economic understanding of monetary policy in Europe that leaves policy-makers and wage setters in the country little choice.

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