



MPIfG Discussion Paper 14/15

**European Integration and the Incompatibility
of National Varieties of Capitalism**

Problems with Institutional Divergence in
a Monetary Union

Alison Johnston and Aidan Regan



Alison Johnston, Aidan Regan
**European Integration and the Incompatibility of National Varieties of Capitalism:
Problems with Institutional Divergence in a Monetary Union**

MPIfG Discussion Paper 14/15
Max-Planck-Institut für Gesellschaftsforschung, Köln
Max Planck Institute for the Study of Societies, Cologne
October 2014

MPIfG Discussion Paper
ISSN 0944-2073 (Print)
ISSN 1864-4325 (Internet)

© 2014 by the authors

Alison Johnston is Assistant Professor of Comparative Political Economy at Oregon State University. Aidan Regan is a lecturer in European political economy at the School of Politics and International Relations (SPIRe) in University College Dublin (UCD), and Co-Director of the Dublin European Institute (DEI). In 2013–2014 he was a postdoctoral fellow at the Max Planck Institute for the Study of Societies in Cologne.

alison.johnston@oregonstate.edu
aidan.regan@ucd.ie

Downloads

www.mpifg.de
Go to *Publications / Discussion Papers*

Max-Planck-Institut für Gesellschaftsforschung
Max Planck Institute for the Study of Societies
Paulstr. 3 | 50676 Cologne | Germany

Tel. +49 221 2767-0
Fax +49 221 2767-555

www.mpifg.de
info@mpifg.de

Abstract

Recent literature on the European debt crisis emphasizes that rising external trade and lending imbalances between the European Monetary Union's (EMU) Northern and Southern member states served as a crucial determinant behind speculative divergence between these two regions. However, these gaping external imbalances only emerged with the launch of the single currency. In this paper, we examine how three different currency regimes – monetary union, fixed exchange rate, and flexible exchange rates – influence the mutual co-existence of export-led growth models (which predominate in the Eurozone's crisis-spared Northern economies) and domestic demand-led growth models (which predominate in the Eurozone's crisis-prone Southern economies). We hypothesize that external imbalances between these two growth models did not emerge prior to EMU because of the presence of two adjustment mechanisms in the real exchange rate: the nominal exchange rate (in soft currency regimes) and the promotion of inflation convergence by national central banks (in hard currency regimes). European monetary integration removed these two readjustment mechanisms, leading to a persistent divergence in the real exchange rate and ultimately to external imbalances between Europe's diverse models of capitalism.

Zusammenfassung

In der neueren Literatur zur europäischen Schuldenkrise wird betont, dass die zunehmenden Ungleichgewichte im Leistungs- und Kapitalverkehr zwischen den nördlichen und südlichen Mitgliedstaaten der Eurozone ein entscheidender Faktor für den stark unterschiedlichen Spekulationsdruck der Investoren auf diese Regionen waren. Jedoch traten diese massiven außenwirtschaftlichen Ungleichgewichte erst mit der Einführung der Gemeinschaftswährung auf. Das Discussion Paper untersucht, wie der Kontext des Währungsregimes – unterschieden werden die Währungsunion, das feste und das flexible Wechselkursregime – das Zusammenwirken der exportgetriebenen Wachstumsmodelle (vorherrschend im von der Krise vergleichsweise wenig betroffenen Norden Europas) und der binnenorientierten Wachstumsmodelle (vorherrschend im von der Krise vergleichsweise stark betroffenen Süden Europas) beeinflusst hat. Dabei wird die Hypothese aufgestellt, dass vor dem Inkrafttreten der Europäischen Währungsunion keine außenwirtschaftlichen Ungleichgewichte zwischen diesen Wachstumsmodellen auftraten, da es zwei Mechanismen zur Anpassung des realen Wechselkurses gab: die nominale Abwertung (genutzt vor allem von Weichwährungsländern) und die von den nationalen Zentralbanken herbeigeführte Inflationskonvergenz (in Hartwährungsländern). Mit der europäischen Währungsintegration wurden diese beiden Mechanismen außer Kraft gesetzt, was eine anhaltende Divergenz der realen Wechselkurse und schließlich außenwirtschaftliche Ungleichgewichte zwischen den verschiedenen Kapitalismusmodellen in Europa zur Folge hatte.

Contents

1	Introduction	1
2	The loss of competitiveness: Cause or outcome of the euro crisis?	3
	Rethinking the causal mechanism: The timing and location of the crisis	6
3	A theoretical account of currency regimes and the incompatibility of growth models	8
	European monetary integration: Adjustment in three currency regimes	11
	From hard currency adjustment to monetary union	14
4	Empirical evidence from the EU14: Currency regimes, inflation performance, and external imbalances	16
5	Conclusion: The future of European integration and national varieties of capitalism	21
	Appendix	23
	References	24

European Integration and the Incompatibility of Different Varieties of Capitalism: Problems with Institutional Divergence in a Monetary Union

1 Introduction

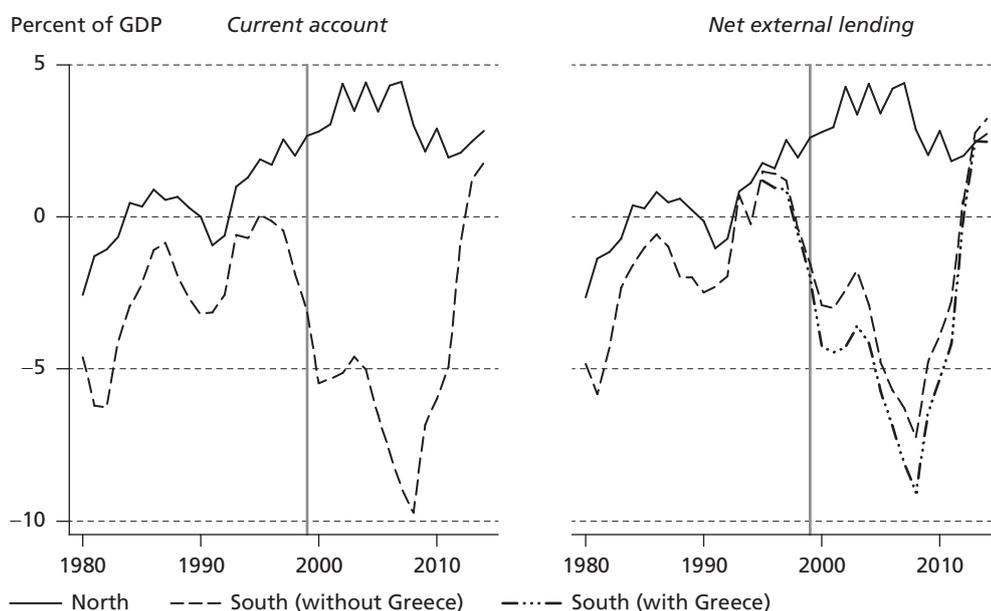
Europe's sovereign debt crisis has highlighted the limits of European monetary integration in promoting economic and political unity. Economic fissures have emerged between EMU's Northern (core) and Southern (peripheral) member states¹: while the former group of countries has emerged from the current crisis relatively unscathed in regards to speculation in international bond markets, the latter group has become subject to intense speculative pressure as investors doubt the solvency of these countries. In return for bailout assistance from the "Troika" (the EU Commission, European Central Bank, and the International Monetary Fund), member states in the euro periphery have been forced to impose harsh austerity measures, which significantly reduced standards of living and heightened doubts about the desirability of further European integration among electorates. Six years into the crisis, these economic fissures between the North and South largely remain uncorrected, and political mobilization against European integration continues to increase.

The lack of macroeconomic adjustment tools in EMU's periphery amidst the European debt crisis prompts the question as to whether European monetary integration is capable of producing welfare-improving outcomes for member states with diverse national economic systems. We argue that monetary integration may have rendered the diverse co-existence of national varieties of capitalism incompatible. The domestic organization of different political economies in the North and South of Europe has interacted with transnational European monetary policy to produce a persistent and unsustainable divergence in trade and external lending, which has been cited by many as an underlying instigator of speculative divergence among EMU member states (Bibow 2012; Obstfeld/Rogoff 2009; Shambaugh et al. 2012; Scharpf 2011). We trace this divergence to the incompatibility of two distinct growth models; domestic demand-led models, which predominate in the new democracies of Southern Europe, and export-led models, which dominate Northern coordinated market economies.

We thank Martin Höpner, Erik Jones, and Fritz Scharpf for their incredibly helpful comments. Any errors lie solely with the authors.

1 In this paper, we use the terms "core," "Northern," and "export-led models" interchangeably to describe the EMU economies that have emerged unscathed from the crisis (Austria, Belgium, Finland, Germany, the Netherlands, and to a lesser degree France). Likewise, we use the terms "periphery," "Southern," and "domestic demand-led models" to describe EMU countries that have fallen into crisis (Greece, Italy, Portugal, Spain, and to a lesser extent Ireland).

Figure 1 External Balances vis-à-vis all trading partners in EMU's Northern and Southern economies, 1980–2014



Note: Northern economies include Austria, Belgium, Finland, France, Germany, and the Netherlands. Southern economies include Greece, Ireland, Italy, Portugal, and Spain. We present Southern external lending balances with and without Greece because the country lacked external lending data before 1995.

Source: EU AMECO Database (2014).

Prior to the formation of EMU, these two growth regimes were able to *co-exist* without producing significant external lending and current account imbalances between each other (see Figure 1). Rather, it was the political drive toward *European monetary integration* which combined these distinct national varieties of capitalism into a single currency and subsequently led to large, persistent, and ultimately unsustainable imbalances in trade and external lending. In this regard, the ultimate source of the euro crisis can be traced to the asymmetric effects of joining together qualitatively distinct growth regimes, or national varieties of capitalism, into a monetary union.

We argue that *two* factors explain why both growth regimes could co-exist prior to the formation of the EMU but not afterwards. The first is due to the presence of the nominal exchange rate safety valve within soft-peg or flexible exchange rate systems (i.e., euro periphery during the early days of the European Monetary System, EMS). Under this monetary arrangement, countries with different growth models had greater leeway in promoting economic adjustment through currency depreciations/devaluations.² Second, in hard currency exchange rate systems where the nominal exchange rate is fixed between countries, competitive realignment between EMU's diverse growth models was

2 This is not to suggest that devaluation/revaluation is an optimal strategy to improve cost competitiveness. But it does have different distributional implications for the downward adjustment in wages and public spending.

facilitated via inflation-averse central banks at the *national level* that promoted inflation and real exchange rate convergence among participating member states. Once the EMU removed the safety valves on the nominal exchange rate *and* the national central banks that promoted inflation and exchange rate convergence, imbalances in the real exchange rate, driven purely by divergences in national inflation, grew unchecked, leading to persistent external imbalances between the North and South of the EMU.

We begin with a review of the recent literature that attempts to explain the divergent exposure of the North and the South to the Eurozone crisis. While the current literature provides valuable insights into the causes of the crisis, it fails to explain why these two diverse systems of capitalism in the North and South only became incompatible under a monetary union. We then explain how demand-led and export-led growth regimes were able to co-exist prior to the creation of the single currency but not afterwards. Utilizing a panel regression model for the EU14³ between 1980 and 2012, we find that monetary union magnifies the direct influence of *national inflation* on external (current account) balances, making it possible for low-inflationary export-led countries (such as Germany) to pursue persistent trade surpluses and external lending balances with their high-inflationary domestic demand-led counterparts (across Southern Europe). We conclude with a discussion on the political implications of increased European integration for the co-existence of diverse models of capitalism within the EMU.

2 The loss of competitiveness: Cause or outcome of the euro crisis?

Two competing, although *not* mutually exclusive, bodies of literature that attempt to explain the origins of the Eurozone crisis revolve around rising *external imbalances* between the North and South of Europe after the introduction of the single currency. One body of literature, the *competitiveness* argument, tends to focus on how *current account* imbalances led to crisis-exposure in the EMU periphery countries (Belke/Dreger 2011; Bibow 2012; Obstfeld/Rogoff 2009; Shambaugh et al. 2012). The core problem suggested by this literature is that the Eurozone crisis is a structural imbalance between export-led countries with current account surpluses (Austria, Belgium, Finland, Germany, the Netherlands, and to a lesser extent France) and domestic demand-led countries with current account deficits (Italy, Spain, Greece, Portugal, and occasionally Ireland). Once the monetary union came into play, national competitiveness, conceptualized as a country's real exchange rate, became nothing more than a function of inflation between those member states trading in the same currency. This implied that those coun-

3 We exclude Luxembourg from our empirical analysis as it was a member of a de facto currency union with Belgium prior to its entry into the EMU and hence did not *directly* impose the same national adjustment processes under a soft and hard currency regime as did other EMU candidate countries.

tries which kept their inflation rates low vis-à-vis their trading partners would realize a (competitive) real exchange rate advantage, promoting trade surpluses and, with it, current account surpluses.

In order to finance these deficits, however, the South needed to externally borrow through the capital account (see Figure 1). Because of a strong home bias in European investment (Gros 2012), the external financing of the South's current account deficits during the EMU's first decade largely stemmed from Northern lending. Such external borrowing could either occur via private banking channels (which largely explains crisis exposure in fiscally prudent Ireland and Spain) or through public borrowing channels (Italy and Greece). Current account deficits are not a problem in themselves and can be sustainable if external borrowing is used to enhance productivity in the export sector and thereby enhance long-term productivity. But in the Eurozone periphery, this borrowing was largely channeled into nontradable sectors (construction in Ireland and Spain, and the public sector in Greece) that are unable to generate the largesse needed to underpin future current account surpluses. The persistence of these current account deficits in the euro periphery, financed by external lending within Europe, prompted markets to doubt total solvency within these member states, exposing them to speculative crisis in 2008.

Hall (2012), Hancké (2013), Höpner (2013), and Johnston et al. (2014) provide a more nuanced *institutional* view as to what gave rise to these competitiveness imbalances in the pre-crisis years of the EMU. They argue that the EMU's Northern economies used features of their qualitatively distinct models of capitalism (corporatist wage-bargaining institutions) to promote an export-oriented growth regime. Coordinated wage-setting institutions constrained the growth of labor costs and, with it, *low inflation*, which promoted real exchange rate competitiveness. Because the Northern economies were able to produce such high levels of wage moderation through their coordinated collective bargaining institutions, relative to their Mediterranean trading partners, these member states produced persistent current account surpluses that were mirrored in the South with current account deficits.

However, in producing significant wage moderation relative to the domestic demand-oriented economies of the South, which lacked corporatist wage-bargaining institutions capable of producing persistent wage moderation, the EMU's export-led economies imposed current account deficits on their Southern trading partners via a beggar-thy-neighbor wage policy. From the perspective of European integration, the promotion of national wage competition in coordinated market economies (CMEs) undermined the export competitiveness of non-CME countries sharing the same currency.

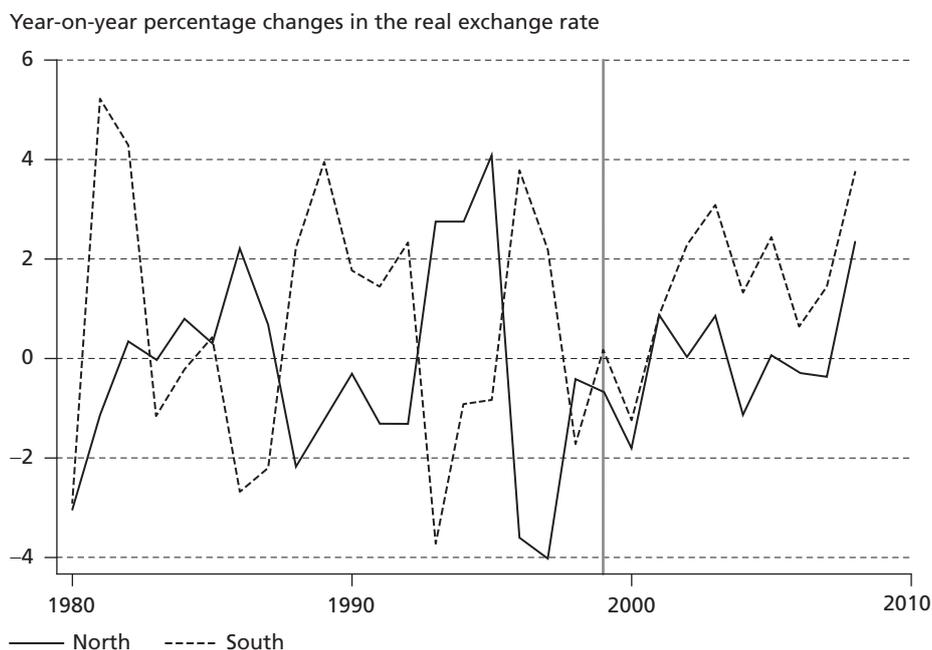
The loss-of-competitiveness argument, it is important to note, explains rising financial and trade imbalances between the EMU's creditor and debtor countries as the *causal factor* via the current account. A second explanation, however, found within the broader international political economy (IPE) and financial liberalization literature, argues

the opposite. The loss of competitiveness, from this perspective, was a consequence of credit expansion. This literature suggests that, without the existence of a coherent financial and/or banking union across Europe, unsustainable imbalances between the North and South started in the *capital account*, which led to the divergences witnessed in the current account (Burda 2013; Jones 2014a, 2014b; Lane 2012). The source of rising economic imbalances between countries in the EMU's core and its periphery stems from the influence of the monetary union on *nominal interest rates*, which expanded the availability of cheap credit for both the private and public sector.⁴ It is the capital rather than the current account that we should examine if we want to explain the divergent exposure to speculative market pressure during the Eurozone crisis.

In promoting the relinquishment of capital controls in the 1990s and convergence in nominal exchange rates and interest rates, the EMU's Southern European countries witnessed significant reductions in borrowing costs between the beginning of the 1990s and their entry into the EMU (Lane 2012; Burda 2013). Coupled with a greater availability of financial products through capital market liberalization and changing bank-lending practices (particularly in the mortgage market), this access to cheap credit fueled consumption and real-estate booms in the euro periphery, which were financed largely by banks in the EMU's core economies. Declines in competitiveness can therefore be perceived as a *consequence* of these international financial developments and not their *cause*. Greater access to cheap credit increased disposable income in domestic demand-led countries and led to rises in wages in order for households to maintain levels of real consumption. These wage increases, in turn, led to wage-inflation spirals, which contributed to an increase in the real exchange rate in domestic demand-led economies that were persistently above those in export-led economies between 1999 and 2008 (see Figure 2).

4 A third view of the origins of the crisis, the "fiscal view," argues that divergent patterns in public borrowing prior to the financial crisis explain divergent speculative exposure. This rests on a similar premise as the financial literature: low interest rates and the lack of proper enforcement of the Stability and Growth Pact increased sovereigns' incentive to borrow, thus promoting high deficits and public debt accumulation (see Buiters/Rahbari 2010 for an overview). Empirically, however, the fiscal view is so weak in explaining crisis exposure for a number of EMU economies that we do not seriously consider it here. Spain and Ireland, who had healthy fiscal records, were heavily exposed to speculation, while Belgium and Germany, who had poorer pre-crisis fiscal performances, were relatively immune from it. Works cited above in the financial literature largely agree that speculative attack was not precipitated by debt accumulation in the public sector alone, but rather in the public and private sectors.

Figure 2 Real exchange rate developments between North and South of EMU, 1980–2008, vis-à-vis the EU15



Note: Northern economies include Austria, Belgium, Finland, France, Germany, and the Netherlands. Southern economies include Greece, Ireland, Italy, Portugal, and Spain. Source: EU AMECO Database (2014).

Rethinking the causal mechanism: The timing and location of the crisis

Both the competitiveness and financial accounts of the European debt crisis highlight important determinants of the crisis that stem from external imbalances between the EMU's member states. Despite these inroads, both exhibit failings in explaining the *location* and *timing* of the crisis. The competitiveness hypothesis provides a logical explanation why current account imbalances evolved between export-led countries (where wage moderation was persistent) and domestic demand-led countries (where wage moderation was difficult to enforce). Yet this hypothesis fails to explain why these persistent imbalances only emerged with the creation of the single currency. The different growth models within the EMU and the divergence in unit labor costs that they produced existed well before the creation of monetary union in Europe. During the process of European market integration in the 1980s and 1990, these two different varieties of capitalism co-existed but failed to produce significant external imbalances, despite having very different inflation rates and growth rates in nominal unit labour costs, as they did during the EMU (see Figure 1).

The financial account of the crisis does a better job at explaining the *timing* of the crisis during the late 1990s and 2000s. The higher interest rate premiums associated with more volatile currencies in the 1990s and the significant reduction of such premiums

during the Maastricht convergence period explain why it took until the early 2000s for persistent borrowing imbalances to emerge between the North and South of Europe. However, the financial literature fails to do a sufficient job in explaining the *location* of the crisis, given the relative absence of these imbalances between the peripheral member states of the EMU vis-à-vis non-EU countries. Reductions in nominal interest rates increased borrowing incentives substantially in the South, which should, in principle, increase demand for credit from all international financial outlets. However, the supply of credit to the euro periphery possessed a strong intra-euro regional bias and was largely delivered from savings in Europe's Northern banks (Gros 2012; Burda 2013). In this account, the problem is not the single currency *per se* but the failure to create a financial union as a complement to the single market. Divergent economic performance and growth models associated with different *domestic institutions* do not feature in the financial hypothesis, as the nexus of the crisis lies predominantly in global finance and international banking.⁵

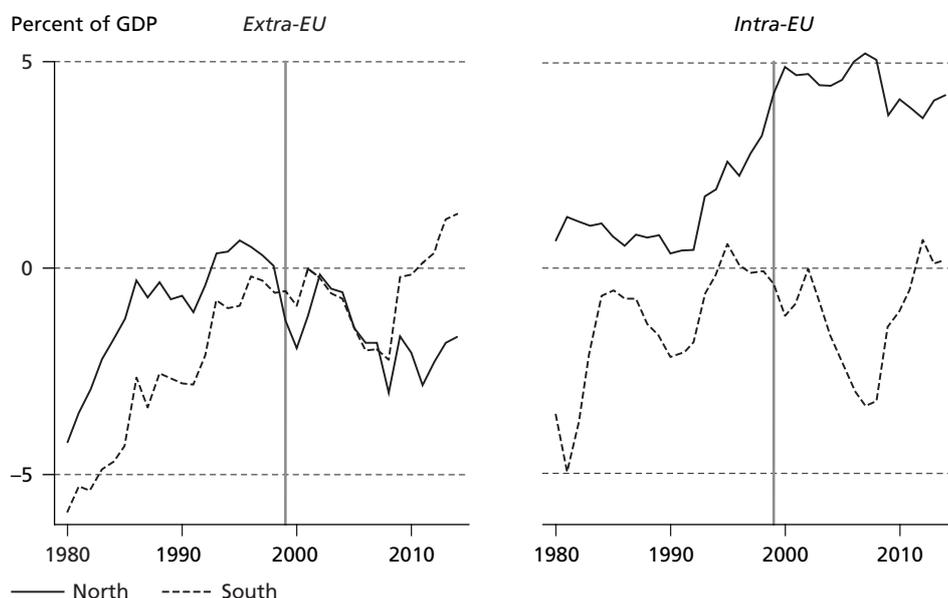
This location bias is also visible in intra- and extra-EU trade statistics, which can partially map the regional imbalances in international capital flows.⁶ Mirroring the current account and external lending imbalances between the EMU's North and South after 1999 (see Figure 1), the growing gap between intra-EU trade deficits in the South and intra-EU trade surpluses in the North is noticeably prominent *after* the creation of the single currency. However, the Southern domestic demand-led countries and the Northern export-led ones perform almost identically in regards to trade balances vis-à-vis *non-EU* countries after 1999.⁷ Only after the crisis set in did the South and North diverge in their net export performance vis-à-vis non-EU countries. This is partially the result of firms in Southern member states having to look outside Europe for markets, given the persistence of wage and demand suppression in Germany and the collapse in domestic demand as a consequence of Troika-imposed austerity. The general point is that the divergences in current and capital accounts that we observe in the euro area is an internal *relation*. Addressing these gaps in the competitiveness and financial literature, we provide below a theoretical explanation why different political-economic growth regimes only produced significant external imbalances between each other *after* the creation of the single currency.

5 Capital inflows are obviously important, but they do not fully explain why some countries were more susceptible to demand-financed credit booms than were others. This requires a comparative analysis of the differences in domestic political institutions or, as we will argue below, of the different varieties of capitalism and growth regimes.

6 We do not possess data on national capital flow by country of origin, so we use national trade data by country of origin to approximate capital imbalances run by the EMU's Northern and Southern economies vis-à-vis their EU and non-EU trading partners.

7 This should not be particularly surprising. Both Southern and Northern EMU countries possessed a more equal playing field in their extra-EU trade performance because they shared the same nominal exchange rate vis-à-vis non-EMU nations.

Figure 3 Extra- and inter-EU net exports for Northern and Southern economies, 1980–2014



Note: Northern economies include Austria, Belgium, Finland, France, Germany, and the Netherlands. Southern economies include Greece, Ireland, Italy, Portugal, and Spain. Source: EU AMECO Database (2014).

3 A theoretical account of currency regimes and the incompatibility of growth models

We assume that two different models of capitalism, which are sustained by distinct political and producer coalitions, dominate Europe's economic landscape (Hall 2012). One model is driven by the economic prominence of the export sector and rests within the institutional structures of the EMU's Northern member states (Austria, Belgium, Finland, Germany, the Netherlands). Countries adhering to this type of growth regime are generally small, open economies with high levels of social expenditure (Germany is the one exception to this "small state" stereotype) and are highly open to international trade (Katzenstein 1985). Because national production is concentrated in industries where firms are price takers in international markets, countries belonging to this growth regime tend to possess coordinated wage-bargaining institutions that deliver (nominal) wage moderation, keeping unit labor costs and domestic price inflation low.

In line with the Varieties of Capitalism literature, these (coordinated market) economies have remained successful in maintaining the size of their export sectors amidst globalization and European integration because they possess institutions which promote the accumulation of skills conducive to high value-added production (Streeck 1997; Hall/Soskice 2001). Such specialization in high value-added production shields their firms from the more intense competition in low-skilled manufacturing that prompted sig-

nificant decline in the manufacturing sectors of non-CME economies with the onset of intensified globalization, namely in the UK, Spain, and Portugal (Rhodes 2000). While the moderation of nominal wages within export-driven nation states limits growth in domestic demand, the more substantial size of the export sector relative to the domestic sector compensates for stagnation in domestic consumption, producing aggregate (export-driven) economic and employment growth (Dullien 2003).⁸

Germany presents a slight dichotomy toward this dynamic of export/domestic demand. Prior to reunification, (West) German wage moderation led to current account surpluses, and its specialization in high value-added industries maintained manufacturing's sizable share in national economic output. Yet the "interaction" between the tendency of Germany's collective bargaining system to keep wages moderate and the Bundesbank's inflation-averse position also led to low interest rates in the country, stimulating domestic investment (Hall 1994; Scharpf 1991). German reunification and the simultaneous inflation shocks of integrating East and West German wages, in addition to Helmut Kohl's decision to finance reunification with fiscal expansion, led to a breakdown in wage restraint and monetary policy compatibility. This led to an increase in German unemployment, higher interest rates, and a growth in current account deficits, causing Germany to temporally deviate from an export-led growth model. Yet the substantial downward adjustment in German wages since the mid 1990's, which were further reinforced by the 2003 Hartz labor market reforms, contributed to a significant expansion in Germany's export performance (and low-wage economy). Between 1992 and the mid-2000s, Germany was the only large OECD country to witness a doubling of its export share (EU AMECO Database, 2014).

Ireland also presents a temporal contrast to our export-led and domestic demand-led growth model analysis. The country realigned itself to a strong export-driven growth regime starting in 1987 with the conclusion of the *Programme for National Recovery*. This re-instituted centralized wage bargaining and linked income growth in the US multinational sector to those in the more sluggish domestic sector (see Culpepper/Regan 2014). The underlying political coalition guaranteed wage restraint during the mid-1990s and ensured that the competitiveness gains of the 1986 and 1992 currency devaluations were not lost, complementing an export-led recovery. But this period of cost competitiveness was short-lived. From the late 1990s on, Ireland's banking, construction, and public sectors, in addition to pro-cyclical fiscal policies by center-right populist governments, drove the economy back to the bubble-prone domestic demand-driven model that had existed previously. Since the onset of the crisis, Ireland has re-prioritized its export-led growth model through an active industrial strategy of attracting direct investment from the United States and other foreign sources via low corporate taxes, light-touch regulation, and highly flexible labor markets (Regan 2014).

8 It must be noted that, with a shift from industry to services, these countries increasingly find it difficult to create high levels of employment in the export sector, leading to an increasingly low-wage 'dualized labor market.'

Unlike export-led capitalist growth regimes in Northern Europe, domestic demand-led models are supported by political coalitions in the domestic nontraded sector. Countries adhering to this type of regime are usually large and/or have trade shares that are substantially smaller than the size of the domestic economy. These member states generally lack coordinated labor-market and industrial-relations institutions that deliver substantial wage moderation. Within the EMU, domestic demand-driven models cluster in Southern Europe's "low-productivity" economies, whose conflict-prone, wage-setting and collective bargaining institutions are predisposed to high inflation and trade/current account deficits vis-à-vis their export-led neighbors (see Jones 2003 for a temporal analysis of current account dynamics between these two different growth models). In addition to a higher tendency for wage inflation, domestic demand-led growth regimes are much more sensitive to the expansionary credit effect of lower interest rates and capital inflows.

Like Germany and Ireland, France, which oscillated between current account deficits in the 1980s and current account surpluses in the 1990s, presents a slightly different variation of the domestic demand-led growth model because its wage developments conform more to its export-driven Northern neighbors than its Southern demand-driven ones. While France's domestic nontraded sector is larger than its export sector, it is less prone to inflation than Southern European countries because the state (rather than autonomous social partners) guarantees wage moderation through state-imposed wage coordination.⁹ Moderated wage settlements in large multinational corporations (MNCs) are legally extended by the Ministry of Labor to the majority of the private sector and are subsequently used as the benchmark by the government in public sector bargaining (Hancké 2002; Johnston/Hancké 2009).

It is important to note that the EMU's demand-led peripheral member states often witness low unit labor cost growth in their tradable manufacturing sectors. But higher wage growth in nontradable sectors, due to the absence of coordinated wage-bargaining institutions, puts pressure on national prices to increase, leaving export-oriented firms with an inflationary disadvantage (see Herrmann 2005 for a general overview on the link between decentralized, low-cost production regimes and industrial wage differentials within EMU countries). In 2007, the hourly wage in the non-market services sector (which encompasses health and social work, education, and public administration and defense) in Italy, Spain, Ireland, and Portugal was 38 percent, 24 percent, 50 percent, and 120 percent higher, respectively, than the hourly wages in the manufacturing sector (EU KLEMS 2010). This is not a problem in itself. In contrast, however, the hourly wages in the non-market service sector of the EMU's Northern economies were either at parity with (the Netherlands), or below (Austria, Belgium, France, Finland, and Germany) the hourly wage in the manufacturing sector. The difference in growth regimes

9 This is not to suggest that only low wages produces low inflation. Bank lending practices matter. But as we will illustrate in the empirical section, the *impact* of inflation on external imbalances is conditional upon the exchange rate regime.

steered by qualitatively distinct coalitions of political leaders and firms in different economic sectors goes a long way to explaining this difference in wage-bargaining and labor market outcomes.

Because domestic demand-led economies are less prone toward producing wage moderation than their export-led counterparts, *ceteris paribus*, their firms will always hold a more disadvantageous inflation position when competing with firms in export-led economies.¹⁰ However, this higher inflation penalty does not necessarily translate into worsened external balances vis-à-vis export-led countries, as inflation's influence on the real exchange rate – which is the nominal exchange rate multiplied by the ratio of the domestic price level, relative to the price level of their trading partners – may be offset by changes in the nominal exchange rate. In some currency regimes, the nominal exchange rate and domestic inflation do not move in tandem, meaning that the increase in one will be offset by a decrease in the other. The process of European monetary integration and, in particular, the single euro currency, changed all of this.

European monetary integration: Adjustment mechanisms in three currency regimes

What can account for the synergy and co-existence of demand-led and export-led capitalist growth regimes in the 1980s and the 1990s that disappeared with the onset of the single currency? We postulate that the primary reason why different national growth models in Europe could co-exist, or did not produce unsustainable external imbalances between each other, is due to the presence of adjustment mechanisms *outside* of monetary union that affect the real exchange rate. The real exchange rate – a country's nominal exchange rate multiplied by the ratio of the domestic price level, relative to the price level of its trading partner – is an important determinant of external capital and trade balances. *Ceteris paribus*, either an increase in the nominal exchange rate (currency) or domestic inflation (prices) will lead to an increase in the real exchange rate. The outcome is a worsening of a country's external trade/current account balance and, if possible, macroeconomic intervention aimed at politically adjusting the imbalance.

In order to conceptualize how the tools of political intervention (by national governments and central banks) in currency regimes outside of monetary union limit external imbalances between growth models in the Eurozone, it is necessary to differentiate between *two* different currency regime types: *hard currency* or fixed exchange rate systems, where nominal exchange rate realignment is limited (managed by national central banks), and *soft currency* or flexible exchange rate systems, where nominal exchange rate

10 For the sake of parsimony, we ignore differences in exposure to international price shocks and international capital mobility, which influence inflation differentials between export and domestic demand-led growth models.

Table 1 Nominal exchange rate changes and inflation averages for the EMU11, in percent

	Average annual change in the nominal exchange rate		Average annual change in inflation	
	1980s	1990–1998	1980s	1990–1998
Austria	2.41	1.40	3.84	2.61
Belgium	-0.56	1.33	4.90	2.26
Finland	1.43	-1.27	7.32	2.24
Germany	2.89	2.00	2.90	2.73
The Netherlands	1.84	1.32	3.00	2.60
<i>Export-led average</i>	<i>1.60</i>	<i>0.96</i>	<i>4.39</i>	<i>2.49</i>
Greece	-11.67	-4.83	19.50	12.05
Italy	-2.41	-1.45	11.20	4.38
Portugal	-8.83	-0.87	17.35	6.59
Spain	-2.34	-1.57	10.26	4.44
<i>Domestic demand-led average</i>	<i>-6.31</i>	<i>-2.18</i>	<i>14.58</i>	<i>6.87</i>
France	-1.69	1.92	7.38	2.06
Ireland	-1.33	0.50	9.34	2.39
<i>Oscillating demand/export economies average</i>	<i>-1.51</i>	<i>1.21</i>	<i>8.36</i>	<i>2.23</i>

Note: Positive changes in the nominal exchange rate imply currency appreciations/depreciations.
Source: EU AMECO Database (2014).

realignment/movement gives countries greater capacity to adjust for domestic price increases (government intervention).¹¹ Both of these international monetary regimes facilitated competitive realignment in Europe between export-led growth models (with a propensity toward low inflation) and domestic demand-led growth models (with a propensity toward high inflation), but they *differ* in how they achieve this realignment.

Soft currency and flexible exchange rate systems promote competitive and external borrowing realignment through depreciation/devaluation and appreciation/revaluation (i.e., Southern European countries before Maastricht). When nation states possess their own currencies in this monetary regime, adjustments are made for price imbalances in the nominal exchange rate (i.e., the price of national currency). Currencies in domestic demand-led growth models, which are more prone to produce high inflation, lose their value relative to countries with strong export-led growth, thereby compensating for the lack of price competitiveness in the domestic real exchange rate. (Table 1 provides average nominal exchange rate appreciations for EMU countries during the 1980s and 1990s. In domestic demand-led economies, higher inflation rates correspond with depreciations of the average nominal exchange rate, and in export-driven ones, lower inflation rates correspond to appreciations of it.). These devalued currencies also produce higher exchange rate risk premium in international markets, thereby triggering higher interest rates and limiting the scale of external borrowing. It offsets the dual problem

11 We treat soft-peg and flexible exchange rate regimes similarly in this paper, because the former, like the latter, is highly permissive in nominal exchange rate adjustment.

identified by both the competitiveness and financial hypothesis as outlined in section 2: the direct influence of wage inflation on the real exchange rate is mitigated, and actors cannot borrow cheaply in international markets.

Likewise, the price of the currency in export-driven growth regimes, which have the institutional capacity to produce lower levels of inflation via wage moderation, gains in nominal value (i.e., appreciates). This increase in the price of their currency undercuts the price competitiveness in their real exchange rate. These appreciated currencies also produce lower exchange rate risk premium, leading international markets to grant lower interest rates, which, *ceteris paribus*, enhances demand for external borrowing. Most of what would later become the “Eurozone core” (i.e., Northern CME-oriented countries) exited this soft-peg international currency regime in the late 1970s and early 1980s. But this was not the case for peripheral European countries, which predominately entered a hard currency peg during the Maastricht convergence period.

In 1979 the EMS’s Exchange Rate Mechanism (ERM) was created to put an end to a system of competitive devaluations and to institute an unaccommodating monetary regime.¹² Several EU nation states committed to a *hard currency peg* with the European Currency Unit (ECU), which was, de-facto, centered on the German mark. Germany and the Netherlands entered the ERM with a hard currency policy already in place. Likewise, Austria established a unilateral hard peg with the German mark in the late 1970s (McNamara 1998; Hochreiter/Winckler 1995). Belgium committed to a hard peg slightly later and initiated its last significant external devaluation in 1983, while France and Ireland undertook their last significant devaluation in 1986 and 1992, respectively (McNamara 1998: 142; Enderlein 2006; Kelly 2003). Finland presents a slight deviation from its export-led neighbors. Between 1979 and the late 1980s, it pursued a highly permissive *soft-currency peg* with a basket of currencies (the German mark had a dominant weight) that resulted in the *markka* losing 60 percent of its value relative to the German mark between the mid-1970s and 1989 (Genberg 2004). Finland briefly attempted a hard peg with the ECU between 1991 and 1992, but the 1992 ERM currency crisis, coupled with a severe recession, forced it to exit the arrangement. It did not rejoin until 1996.

The EMU’s Southern member states entered the hard-currency peg of the ERM much later, and with very different domestic institutions. Spain joined in 1989 with a wider fluctuation band of ± 6 percent, Portugal entered in 1992 also with a ± 6 percent fluctuation margin, and Greece finally initiated its adjustment toward a hard-currency regime in 1994 (Ungerer et al. 1990; Tavlas/Papaspyrou n.d.). Italy failed to transfer to the narrow ± 2.25 percent fluctuation bands until 1990 (Ungerer et al. 1990; McNamara 2005). It is important to note that these Southern European member states had significantly higher inflation rates relative to their export-led Northern neighbors, but during

12 National “models” of capitalism shaped the politics behind this process of European monetary integration. The previous “soft currencies” wanted access to capital flows, whereas the “hard currencies” wanted access to stable markets.

this period the political tool of currency depreciation/devaluation compensated for the negative impact of inflation on the real exchange rate. On average, currencies in these member states depreciated or were devalued by 6.31 percent every year in the 1980s, compared to the average annual revaluation/appreciation of 1.6 percent in the North.

The ultimate result of this symmetry in the price of currency between different national varieties of capitalism within the EU was twofold. First, those nation states in Europe with a propensity toward high inflation and domestic demand-led growth enjoyed a depreciating/devalued currency that limited increases in the real exchange rate. In turn, these countries avoided the accumulation of significant current account deficits (avoiding a competitiveness and balance-of-trade crisis). Second, interest rates reflected the price of nominal exchange rate risk on the international market and thus limited overextension in external borrowing. Therefore, external imbalances between Europe's different growth models, whether observed in the current or capital account, failed to materialize within the context of this looser form of European (monetary) integration. Different varieties of capitalism, pursuing distinct strategies of economic and employment growth, could co-exist.

From hard-currency adjustment to monetary union

The same co-existence of growth regimes occurred in *hard-peg fixed exchange rate systems* (which, as outlined earlier, had existed in Northern Europe since the early 1980s). This currency regime promoted competitive and external borrowing realignment between export-led and domestic demand-driven growth models by way of inflation convergence. Such inflation convergence is only possible, however, in the presence of *national central banks* that respond to domestic price developments through direct targeting of the real exchange rate. With perfect capital mobility, the pursuit of independent monetary readjustment is not possible under a fixed exchange rate (Mundell 1961; Fleming 1962), and national banks must target the inflation performance of the anchor currency.¹³ This hard-peg obligation limits the political intervention of national governments and their capacity to use currency devaluations for competitive realignment. Central banks in domestic demand-led models cannot respond to high inflation with nominal exchange rate adjustments under this currency regime; therefore they must respond to high inflation with monetary contraction (McNamara 1998). This process of adjustment (or austerity) occurred in Southern Europe during the Maastricht convergence period.

13 Of course, the anchor currency could be exposed to price shocks, which would lead to higher inflation. In this case, however, the shadow currency would need to follow such inflation developments in order to uphold the peg.

The enforcement of a hard-currency policy through monetary contraction as conducted by national central banks was relatively successful at producing inflation convergence between export-led and domestic demand-led growth models within Europe. This convergence was institutionalized at the European level with the Maastricht nominal criteria between 1992 and 1998 (or for Finland, which entered the EU in 1995 without the credible pursuit of a hard-currency policy, from 1995 to 1998). In order to fulfil inflation requirements for EMU entry and commit to a de facto hard-peg regime, Ireland and Southern European countries instituted painful downward adjustments in wages and public spending, often through national “social pacts” between governments, unions, and employers¹⁴ (Johnston 2012). The final result of these domestic adjustment processes was similar to that delivered in a soft-peg regime. Although the nominal exchange rate was fixed, inflation convergence in the 1990s ensured convergence in *real exchange rates* between EMU’s export-led and domestic demand-led models, which limited divergence in current account balances and facilitated the co-existence of growth regimes in the context of European integration.

The creation of the EMU eliminated both adjustment mechanisms in the soft-peg and hard-peg arrangements. Under a common currency, the nominal exchange rate disappeared, eliminating its role as an adjustment mechanism for taming diverging inflation performances in the real exchange rate. The monetary union’s new real exchange rate identity, which became solely a function of *relative* inflation, provided export-led countries in Northern Europe with a persistent competitive advantage with regard to inflation. Furthermore, while countries in hard and unaccommodating currency regimes lacked the nominal exchange rate as an adjustment mechanism, the institutional feature that facilitated the convergence of inflation and real exchange rates between different European varieties of capitalism – the national central banks – also disappeared. Nation states transferred this problem-solving capacity to a new central bank in Frankfurt: the European Central Bank (ECB), which targeted average inflation rates across very different political economies and possessed limited capacity to deliver inflation convergence among diverse EMU member states. The presence or absence of a financial-banking union (the financial hypothesis) would have made no difference.

Although the supranational ECB was very adverse to inflation, its jurisdiction was the euro area, *not* the individual national political economies that constitute the Eurozone. Consequently, it could not use a one-size-fits-all monetary policy to enforce low inflation in those member states with demand-led growth models like its *national* central bank predecessors had done previously. The absence of national central banks aimed at promoting inflation convergence had immediate effects on the real exchange rate. Inflation and the real exchange rate slowly but persistently diverged between the EMU’s export-led and demand-led growth regimes. This was not due to the resurgence in wage

14 This is what these countries are attempting today, except the process is not through domestic social pacts but through strict conditionality requirements imposed by international creditors – the Troika.

inflation in domestic demand-led economies *per se*. The EMU's peripheral states witnessed lower inflation rates in the pre-crisis 2000s than they did in the 1990s. Rather, it was largely facilitated by wage moderation and deflation in the coordinated market economies of the North. These deflationary pressures were most prominent in Germany, where the average inflation rate in the pre-crisis EMU years (1999–2007) was roughly half that of the Maastricht period (1992–1998). In 1999, inflation differentials between EMU's Northern and Southern economies were roughly 2 percent. By 2001, these inflation differentials had doubled (EU AMECO Database, 2014). Such inflation differentials accumulated year on year and transpired into a *persistent* divergence in the real exchange rate (Höpner/Lutter 2014).

In this regard, European monetary integration did not achieve its political objective of economic and institutional convergence among participating member states. The EMU contributed to the imbalance of capitalism by establishing an environment where persistent divergence in the real exchange rate and, in turn, external imbalances between the North and South of Europe were possible. Contrary to the literature (and the European Commission) that criticizes rigid labor market institutions and large welfare states within an integrated international economic system (OECD 1994; Siebert 1997; Sibert/Sutherland 2000), the biggest losers of European monetary integration were not the social market economies of Northern Europe, with historically specific export-led growth regimes, but those EMU member states lacking CME “micro foundations.” Monetary union removed the two adjustment mechanisms – exchange rate adjustment and national central banks – that made the co-existence of different varieties of capitalism within Europe possible.

4 Empirical evidence from the EU14: Currency regimes, inflation performance, and external balances

Using cross-sectional time series regression of the EU14¹⁵ from 1980 to 2012, we examine how different currency regimes interact with conflicting components of the real exchange rate – *domestic inflation and the nominal exchange rate* – to influence a member state's external imbalances in the current account. We expand our sample to the EU14's non-EMU countries in order to capture variation in current account, inflation, and the nominal exchange rate after 1999, but we also limit our sample to these countries, because the national nominal exchange rate index data we use from the EU's AMECO Database is constructed relative to the EU15. The current account is composed of a country's net exports (the largest item), net income from abroad, and net transfers of

15 These countries include Austria, Belgium, Denmark, Finland, France, Germany, Greece (who entered in 2001), Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

assistance. Rather than modeling the current account as a function of the three items, we focus on variables that are directly linked to the movement of these components: the real exchange rate, which we separate into the nominal exchange rate and a country's inflation performance which is heavily influenced by a growth model's capacity to produce wage moderation, and growth in (real) per capita national incomes. We introduce a slight innovation into this model, however, by examining the interaction between the *three* currency regimes outlined above and (the) nominal exchange rate/inflation. The purpose of this is to examine the influence of the nominal exchange rate and domestic inflation on the current account under different currency regimes and to identify monetary regimes where inflation performance leads to persistent improvements/decline in the current account balance.

Our baseline model can be summarized as follows:

$$(CA_{i,t} - CA_{i,t-1}) = \alpha_i + \beta_1 NER_{i,t} + \beta_2 CPI_{i,t} + \beta_3 EMU_{i,t} + \beta_4 HARD_{i,t} + \beta_5 (EMU * NER)_{i,t} + \beta_6 (HARD * NER)_{i,t} + \beta_7 (EMU * CPI)_{i,t} + \beta_8 (HARD * CPI)_{i,t} + \beta_9 GDPPC_{i,t} + \varepsilon_{i,t}$$

$(CA_{i,t} - CA_{i,t-1})$ is the first difference¹⁶ of country *i*'s current account (as a percentage of GDP) at time *t*, $NER_{i,t}$ is the (annual percentage change) in the nominal exchange rate of country *i* at time *t*, and $CPI_{i,t}$ is the inflation rate of country *i* at time *t*. $EMU_{i,t}$ is a dummy variable indicating whether a country is in monetary union at time *t*. $HARD_{i,t}$ is a dummy variable indicating whether a country is subject to a hard-currency peg (i.e., fixed exchange rate arrangements with a restrictive ± 2.25 percent or lower fluctuation band) or the Maastricht nominal criteria at time *t*. The baseline (omitted) currency regime category is a flexible/soft-currency peg exchange rate arrangement (the Appendix details which currency regime to which each EU14 country belonged between 1980 and 2012). $(EMU * NER)_{i,t}$ and $(EMU * CPI)_{i,t}$ are interactions between the EMU dummy and the nominal exchange rate and inflation rate, respectively. Likewise, $(HARD * NER)_{i,t}$ and $(HARD * CPI)_{i,t}$ are interactions between the hard-peg/Maastricht currency regime dummy and the nominal exchange rate and inflation rate, respectively. $GDPPC_{i,t}$ is real per capita GDP growth in country *i* at time *t*. Current account, nominal effective exchange rate, and inflation data were taken from the EU's AMECO database, while real GDP per capita (in US dollars, purchasing power parity) data was taken from the OECD.

In order to control for omitted time and country effects, we incorporate $(n-1)$ country and time dummies into our model. While several studies have questioned the use of fixed effects, which have the potential to crowd out the explanatory power of relative invariant regressors (see Kittel/Winner 2005 and Plümper et al. 2005), we include them

16 We take the first difference of the current account because a Hadri-LM unit root test indicated the current account balance (as a percentage of GDP) was non-stationary (z-statistic = 38.37, p-value = 0.0000)

in our model since our variables are stochastic and are not presented in levels (additionally, our results are consistent when we use a random effects estimator). We also utilize country-clustered standard errors in order to correct for contemporaneous correlation and panel heteroskedasticity.¹⁷ The use of panel-corrected standard errors has become a popular remedy in political science for both of these problems (see Beck/Katz 1995), yet we opt for clustered standard errors because they produce more unforgiving robust standard errors (see Rogers 2003).

Because the flexible/soft-peg currency arrangement is the baseline category, the nominal exchange rate and inflation effects on the current account under this currency regime are exhibited in the hierarchical terms β_1 and β_2 . Given our theory about the way the nominal exchange rate counteracts inflation's influence on the real exchange rate in flexible/soft-peg exchange rate systems, we anticipate that *neither* the nominal exchange rate *nor* the inflation hierarchical terms will correlate directly with changes in the current account. A significant pair-wise correlation coefficient of -0.55 between the nominal exchange rate and inflation under the flexible/soft-peg system indicates that these two components work strongly against each other in the real exchange rate. In other words, we anticipate that both β_1 and β_2 will exhibit nonsignificance in explaining current account imbalances. We also anticipate the hard currency regime's interaction term with inflation (β_8) will display nonsignificance, as countries that engage in this currency arrangement converge in their inflation behavior.

The hard currency regime's interaction with the nominal exchange rate (whose effect is captured in β_6) and monetary union's interaction with the nominal exchange rate (captured in β_5) may also display insignificance. Under both a hard-peg and single currency, the nominal exchange rate no longer provides an adjustment mechanism *amongst its participants*, because countries entering these currency regimes must, or do in the case of monetary union, converge in their nominal exchange rate behavior. However, β_5 or β_6 may hold a significant *negative* coefficient, if *joint* increases in the nominal exchange rate of the hard currency or EMU regime prompts their members to lose exchange rate competitiveness *en masse* vis-à-vis countries that are participating within soft currency arrangements. Joint increases in the nominal exchange rate, therefore, would prompt a decline in competitiveness and a reduction in the current account balance via countries that are *not* members of a hard currency regime/currency union.

The direct influence of inflation on the current account should be *conditional* on the presence of monetary union. Because the real exchange rate between countries that share a similar currency is simply the ratio of prices between these countries, and be-

17 A Wooldridge test for auto-correlation (F-statistic of 5.205, p-value = 0.040) and an LR statistic of panel heteroskedasticity (Chi-squared statistic of 102.13, p-value = 0.000, run without time dummies because of the lack of iterative convergence) for Model III in Table 2 provide sufficient evidence that both first-order serial correlation and panel heteroskedasticity were present in the baseline model.

cause national central banks no longer exist to facilitate inflation convergence with the onset of monetary union, an increase in a country's inflation rate will lead to a higher real exchange rate and hence a reduction in the current account balance. *Therefore, β_7 should be significantly associated with current account decline given inflation's direct effect on the real exchange rate under a common currency* (an increase in the domestic inflation rate leads to a direct increase in the real exchange rate in a currency union, worsening the current account balance for this member state).

Finally, we include growth in real GDP per capita income as a control, given its negative relationship with the current account: as incomes increase, imports increase, leading to trade deficits and ultimately current account deficits. Table 2 presents our three models: one includes only the influence of the nominal exchange rate and its conditional interaction with monetary union and a hard-peg regime, one includes only the influence of inflation and its conditional interaction with monetary union and a hard currency regime, and one includes both dynamics.

Our results in Table 2 conform to our hypotheses. In soft-peg/flexible currency regimes, the (hierarchical) inflation and the nominal exchange rate variables display a nonsignificant relationship with changes in the current account. Such a result is not surprising given that an increase in inflation precipitates a decline in the nominal exchange rate, mitigating both variables' direct effect on the current account. Likewise, the interaction term between the hard-peg/Maastricht currency regime and the inflation rate is also not significant. This, too, is unsurprising given that countries that enter hard fixed exchange rate arrangements witness inflation convergence and thus exhibit minimal differences in this component of the real exchange rate. The interaction term between the EMU and the nominal exchange rate is negatively significant, indicating that increases in the euro's nominal exchange rate leads to a worsening of the current accounts of EMU countries vis-à-vis countries engaged in soft currency regimes. Even though the interaction term between the hard currency peg and the nominal exchange rate was also negative, it failed to hold significance. The EMU dummy is also positively significant in two of the three models, indicating that countries are more likely to witness positive increases in the current account under monetary union, compared to a soft currency regime. This association may be driven by the rapid increases in current account balances as were witnessed in the South after the 2008 financial crisis and caused largely by the substantial collapse in incomes and import demand that resulted from austerity (see Figure 1).

When interacted with monetary union, inflation becomes significantly correlated with a worsening of the current account. Keeping all else equal, if a country's inflation rate grows by 1 percent in a given year under monetary union, this will prompt, roughly, a 0.3 percent (of GDP) decline in the current account balance. Since domestic demand-led growth economies in Southern Europe produce consistently higher inflation than export-led economies in Northern Europe, our results indicate that such inflation performances will translate into persistent decline in the current account balance *only* un-

Table 2 Direct and conditional effects of inflation and the nominal effective exchange rate on current account balances for the EU14, 1980–2012

	I	II	III
Δ Real per capita income	−0.2391*** (0.044)	−0.2287*** (0.048)	−0.2351*** (0.044)
EMU dummy	0.0826 (0.417)	0.7866** (0.399)	0.8100** (0.380)
Hard-peg dummy	−0.1743 (0.184)	−0.2423 (0.371)	−0.1621 (0.384)
Δ NER	0.0156 (0.030)		0.0095 (0.023)
Δ NER * EMU dummy	−0.2802** (0.122)		−0.2568** (0.119)
Δ NER * Hard-peg dummy	−0.0338 (0.044)		−0.0252 (0.043)
Δ CPI		−0.0259 (0.048)	−0.0238 (0.043)
Δ CPI * EMU dummy		−0.3450*** (0.118)	−0.3274*** (0.110)
Δ CPI * Hard-peg dummy		0.0053 (0.050)	−0.0113 (0.051)
Constant	0.632 (0.603)	1.2288*** (0.418)	0.6948 (0.499)
Number of observations	448	448	448
R-squared (within panels)	0.2207	0.2251	0.2362

Note: The dependent variable is the first difference in the current account balance (as a percentage of GDP). The model used was a pooled cross-sectional time series OLS estimator for the EU14 (excluding Luxembourg) from 1980 to 2012. N-1 country and time dummies are included but not shown. Country clustered standard errors are provided in parentheses. *, **, and *** indicate significance at a 90%, 95%, and 99% confidence level, respectively.

der monetary union. Under hard and soft currency regimes, higher inflation rates *do not* translate into the persistent worsening of current account balances. Real GDP per capita growth, like the interaction between monetary union and national inflation, exhibits a negative relationship with the change in the current account balance. This suggests that inflationary wage and asset price developments in domestic demand-led growth models may produce two effects that worsen the current account under monetary union: inflation would increase the real exchange rate, making firms within these countries less competitive and prompting exports to decline, and, if buoyed by wage-setters response to inflation, a higher real GDP per capita growth would further reinforce this downward pressure on the current account balance. The beta coefficient of real GDP growth also highlights the trajectory of “adjustment” in the South in the aftermath of the 2008 financial crisis. The austerity-induced collapse in incomes precipitated a collapse in import demand in these member states, which partially rectified their large pre-crisis current account deficits.

5 Conclusion: The future of European integration and national varieties of capitalism

Using the Eurozone as a regional case study in international political economy, we have illustrated the incompatibility and asymmetric effects of joining together distinct capitalist growth regimes (export-led and demand-led) into a monetary union. These growth models could co-exist in previous currency regimes because policymakers had access to macroeconomic instruments of adjustment to tame the worst effects of price divergence. Without nominal exchange rate adjustments (soft currency) and national central banks that actively targeted the real exchange rate (hard currency), these growth regimes have become increasingly incompatible in Europe, as large and persistent external imbalances have grown between them.

What does this mean for the political economy of European integration? Though the EU has implemented new forms of further macroeconomic integration in attempts to rectify the crisis, most notably the recent banking union and the European Stability Mechanism, these efforts ignore the fundamental adjustment problem that we have outlined above. As long as some member states possess domestic institutions that grant them a comparative advantage in producing low inflation, they will, *de facto*, have a *persistent* competitive advantage in the real exchange rate that is conducive to accumulating current account surpluses. Even the creation of a fiscal union with the capacity for income transfers is unlikely to rectify such imbalances. While income transfers from prosperous to struggling regions might help offset some of the income losses that have emerged from the current debt crisis, they will not compensate for the lack of inflation adjustment mechanisms that underpin the growing “imbalance of capitalisms” between models of export-led growth and of domestic demand-driven growth in Europe’s monetary union.

Does this mean all is lost in the cause of integrating diverse systems of capitalism into a single currency?¹⁸ Our research suggests that the EU has some capacity to manage the growth of external imbalances between export-led and domestic demand-driven growth regimes via supranational wage coordination. Although the institutional foundations to coordinated wage inflation are certainly present in the Northern corporatist economies of the EMU, the political conditions to facilitate this intervention in the German labor market are largely absent. It would require the German government and employers to abandon, albeit periodically, the growth model that provides Germany with comparative advantages in international markets. At the same time, it does suggest that the EU needs to seriously reconsider the Troika’s austerity policies. The EU is indirectly managing income divergences between member states via the uniform reduction of wages and public services in peripheral member states. These have produced significant

18 See the debate in Wolfgang Streeck, 2014: Small-State Nostalgia? The Currency Union, Germany, and Europe: A Reply to Jürgen Habermas. In: *Constellations* 21, 213–221; doi: 10.1111/1467-8675.12083.

deflationary effects with long-term social consequences. However, this supranational income management (based on a conspicuous growth strategy of supply-side structural reforms) has been entirely one-sided.

While domestic demand-led models of the EMU are forced to pursue painful austerity measures that have reduced inflation and increased unemployment, no attempt has been made to correct the excessive levels of wage moderation in Germany, which is a core factor in explaining the crisis. The result of the Troika policy response has been to establish an asymmetric low-growth equilibrium within Europe; the collapse of import demand in the periphery has partially corrected their current account imbalances, but export-led economies continue to pursue low inflation strategies in an effort to sustain their current account surpluses. If Europe is to see an end to its current crisis, it must address the deflationary bias within its monetary union that grants export-led member states with persistent comparative advantage in their real exchange rates. Consideration should be made to coordinate and incentivize more robust wage growth in its Northern economies in order to assist with demand recovery in the South.

Appendix

Currency regime membership for the EU14, 1980–2012

Country	Soft-peg (EMS for late converts) Flexible system	Hard currency (EMS for early converts) Maastricht system	Monetary Union
Austria	NA	1979–1995 (unilateral peg with Germany); 1995–1998 (ERM and Maastricht)	1999–2012
Belgium	1980–1983	1984–1998	1999–2012
Denmark	1980–1982	1983–2012	NA
Finland	1980–1990, 1992–1994	1991, 1995–1998	1999–2012
France	1980–1986	1987–1998	1999–2012
Germany	NA	1980–1998	1999–2012
Greece	1980–1993	1994–2000	2001–2012
Ireland	1980–1986	1987–1998	1999–2012
Italy	1980–1990	1991–1998	1999–2012
Netherlands	NA	1980–1998	1999–2012
Portugal	1980–1991	1992–1998	1999–2012
Spain	1980–1991	1992–1998	1999–2012
Sweden ^a	1980–1990, 1993–2012	1991–1992	NA
United Kingdom ^b	1980–2012	NA	NA

Sources: Hochreiter/Winckler (1995), Enderlein (2006), Genberg (2004), Kelly (2003), McNamara (1998, 2005), Ungerer et al. (1990), Tavlas/Papaspyrou (n.d.).

a Sweden joined the ERM briefly in 1991, exiting after the 1992 ERM crisis, and maintained a narrow $\pm 1.5\%$ fluctuation band (Svensson 1994).

b The UK is classified as a soft peg during its brief membership in the ERM in the early 1990s because of its wider fluctuation margin of $\pm 6\%$ (Ungerer et al. 1990).

References

- Beck, Nathaniel/Jonathan N. Katz, 1995: What to Do (and Not to Do) with Time-Series Cross-Section Data. In: *American Political Science Review* 89(3), 634–648.
- Belke, Ansgar/Christian Dreger, 2011: *Current Account Imbalances in the Euro Area: Catching up or Competitiveness?* RUHR Economic Papers 241. Essen: Rheinisch-Westfälisches Institut für Wirtschaftsforschung (RWI).
- Bibow, Jörg, 2012: *The Euro Debt Crisis and Germany's Euro Trilemma*. Levy Economics Institute of Bard College Working Paper 721. Annandale-on-Hudson, NY: Levy Economics Institute.
- Buiter, Willem/Ebrahim Rahbari, 2010: *Greece and the Fiscal Crisis in the Eurozone*. CEPR Policy Insight 51. London: Centre for Economic Policy Research (CEPR).
- Burda, Michael 2013: *The European Debt Crisis: How Did We Get into this Mess? How Can We Get out of It?* SFB Discussion Paper 2013-019. Berlin: Humboldt University. <www.econstor.eu/bitstream/10419/79629/1/745234356.pdf>
- Culpepper, Pepper/Aidan Regan, 2014: Why Don't Governments Need Trade Unions Anymore? The Death of Social Pacts in Ireland and Italy. In: *Socio-Economic Review*. First published online: February 2, 2014; doi: 10.1093/ser/mwt028.
- Dullien, Sebastian, 2003: Is Small Really Beautiful? Explaining Different Unemployment Performances within the Euro-zone. In: *European Political Economy Review* 1(2), 126–151.
- Enderlein, Henrik, 2006: Adjusting to EMU: The Impact of Supranational Monetary Policy on Domestic Fiscal and Wage Setting Institutions. In: *European Union Politics* 7(1), 113–140.
- European Commission's Directorate General for Economic and Financial Affairs, 2014: *Annual Macroeconomic Database (AMECO)*. <http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm> (Feb. – May 2014)
- EU KLEMS Database, 2010: <www.euklems.net> (accessed Dec. 2009 – Apr. 2011). Groningen: Groningen Growth and Development Centre at University of Groningen.
- Fleming, J. Marcus, 1962: Domestic Financial Policies under Fixed and under Floating Exchange Rates. In: *Staff Papers – International Monetary Fund* 9(3), 369–380.
- Genberg, Hans, 2004: *Monetary Policy Strategies after EU Enlargement*. Conference paper. Conference on "Challenges for Central Banks in an Enlarged EMU," Vienna, 20–21 February 2004. <www2.wu-wien.ac.at/ecsa/emu/papgenberg.pdf>
- Gros, Daniel, 2012: *Macroeconomic Imbalances in the Euro Area: Symptom or Cause of the Crisis*. CEPS Policy Brief No. 266. Brussels: Centre for European Policy Studies (CEPS).
- Hall, Peter, 1994: Central Bank Independence and Coordinated Wage Bargaining: The Interaction in Germany and Europe. In: *German Politics and Society* 31, 1–23.
- , 2012: The Economics and Politics of the Euro Crisis. In: *German Politics* 21(4), 355–371.
- Hall, Peter/David Soskice, 2001: *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- Hancké, Bob, 2002: *Large Firms and Institutional Change: Industrial Renewal and Economic Restructuring in France*. Oxford: Oxford University Press.
- , 2013: *Unions, Central Banks and the EMU: Labour Market Institutions and Monetary Integration in Europe*. Oxford: Oxford University Press.
- Herrmann, Andrea, 2005: Converging Divergence: How Competitive Advantages Condition Institutional Change under EMU. In: *Journal of Common Market Studies* 43(2), 287–310.
- Hochreiter, Eduard/Georg Winckler, 1995: The Advantages of Tying Austria's Hands: The Success of the Hard Currency Strategy. In: *European Journal of Political Economy* 11, 83–111.
- Höpner, Martin, 2013: *Die Verschiedenheit der europäischen Lohnregime und ihr Beitrag zur Eurokrise: Warum der Euro nicht zum heterogenen Unterbau der Eurozone passt*. MPIfG Discussion Paper 13/5. Cologne: Max Planck Institute for the Study of Societies.
- Höpner, Martin/Mark Lutter, 2014: One Currency and Many Modes of Wage Formation. Why the Eurozone is too Heterogeneous for the Euro. MPIfG Discussion Paper. Cologne: Max Planck Institute for the Study of Societies, *forthcoming*.

- Johnston, Alison, 2012: European Economic and Monetary Union's Perverse Effects on Sectoral Wage Inflation: Negative Feedback Effects from Institutional Change? In: *European Union Politics* 13(3), 345–366.
- Johnston, Alison/Bob Hancké, 2009: Wage Inflation and Labour Unions in EMU. In: *Journal of European Public Policy* 16(4), 601–622.
- Johnston, Alison/Bob Hancké/Suman Pant, 2014: Comparative Institutional Advantage in Europe's Sovereign Debt Crisis. In: *Comparative Political Studies*. First published on January 21, 2014; doi:10.1177/0010414013516917.
- Jones, Erik, 2003: Liberalized Capital Markets, State Autonomy and European Monetary Union. In: *European Journal of Political Research* 42(2), 197–222.
- , 2014a: *Forgotten Financial Union*. Conference paper. 21st Conference of Europeanists, Washington, D.C., 14–16 March 2014.
- , 2014b: *Competitiveness and the European Financial Crisis*. Conference paper. 21st Conference of Europeanists, Washington, D.C., 14–16 March 2014.
- Katzenstein, Peter, 1985: *Small States in World Markets: Industrial Policy in Europe*. Ithaca: Cornell University Press.
- Kelly, John, 2003: The Irish Pound: From Origins to EMU. In: *Quarterly Bulletin, Spring 2003*, 89–115. Dublin: Central Bank of Ireland.
<<https://www.centralbank.ie/paycurr/notescoin/history/Documents/spring8.pdf>>
- Kittel, Bernhard/Hannes Winner, 2005: How Reliable is Pooled Analysis in Political Economy? The Globalization – Welfare State Nexus Revisited. In: *European Journal of Political Research* 44, 269–293.
- Lane, Philip R., 2012: The European Sovereign Debt Crisis. In: *Journal of Economic Perspectives* 26(3), 49–68.
- McNamara, Kathleen, 1998: *The Currency of Ideas: Monetary Politics in the European Union*. Ithaca: Cornell University Press.
- , 2005: European Monetary Union. In: Helen Wallace/Mark A. Pollack/Alasdair R. Young (eds.), *Policy-Making in the European Union*. Oxford: Oxford University Press, 141–160.
- Mundell, Robert, 1961: A Theory of Optimum Currency Areas. In: *American Economic Review* 51(4), 657–665.
- Obstfeld, Maurice/Kenneth Rogoff, 2009: *Global Imbalances and the Financial Crisis: Products of Common Causes*. Conference paper. Federal Reserve Bank of San Francisco Asia Economic Policy Conference, Santa Barbara, CA, 18–20 October 2009. <www.parisschoolofeconomics.eu/IMG/pdf/BdF-PSE-IMF_paper_OBSTFELD-ROGOFF.pdf>
- OECD, 1994: *The OECD Jobs Study: Facts, Analysis, Strategies*. Paris: OECD.
- , 2014: *Main Economic Indicators*. Paris: OECD. <<http://stats.oecd.org/mei/>> (29 May 29th 2014)
- Plümpert, Thomas/Vera Troeger/Philip Manow, 2005: Panel Data Analysis in Comparative Politics: Linking Method to Theory. In: *European Journal of Political Research* 44(2), 327–354.
- Regan, Aidan, 2014: What Explains Ireland's Fragile Recovery from the Crisis? The Politics of Comparative Institutional Advantage. In: *CESifo Forum* 15(2), 26–31.
- Rhodes, Martin, 2000: Restructuring the British Welfare State: Between Domestic Constraints and Global Imperatives. In: Fritz W. Scharpf/Vivien A. Schmidt (eds.), *Welfare and Work in the Open Economy*, Vol. 2: *Diverse Responses to Common Challenges*. Oxford: Oxford University Press, 19–68.
- Rogers, William, 2003: Regression Standard Errors in Clustered Samples. In: *STATA Technical Bulletin* 3, 88–94.
- Scharpf, Fritz. W, 1991: *Crisis and Choice in European Social Democracy*. (Translated by Ruth Crowley and Fred Thompson). Ithaca: Cornell University Press.
- , 2011: *Monetary Union, Fiscal Crisis and the Pre-emption of Democracy*. LEQS Paper 36. London: London School for Economics.
- Shambaugh, Jay C./Ricard Reis/Hélène Rey, 2012: The Euro's Three Crises. In: *Brookings Papers on Economic Activity*, Spring 2012, 157–231.

- Siebert, Horst, 1997: Labor Market Rigidities: At the Root of Unemployment in Europe. In: *The Journal of Economic Perspectives* 11(3), 37–54.
- Sibert, Anne/Alan Sutherland, 2000: Monetary Union and Labor Market Reform. In: *Journal of International Economics* 51(2), 421–435.
- Streeck, Wolfgang, 1997: German Capitalism: Does It Exist? Can It Survive? In: *New Political Economy* 2(2), 237–256.
- , 2014: *Buying Time: The Delayed Crisis of Democratic Capitalism*. London: Verso.
- Svensson, Lars EO, 1994: Why Exchange Rate Bands? Monetary Independence in spite of Fixed Exchange Rates. In: *Journal of Monetary Economics* 33(1), 157–199.
- Tavlas, George S./Theodoros Papaspyrou: *Monetary Policy in Greece on the Road to EMU*. Technical Report, Bank of Greece. <www.bankofalbania.org/web/pub/tavlas_papaspyrou_255_1.pdf>
- Ungerer, Horst/Jouko J. Hauvonen/Augusto Lopez-Claros/Thomas Mayer, 1990: *The European Monetary System: Developments and Perspectives*. Occasional Paper 73. Washington, DC: International Monetary Fund.

Recent Titles in the Publication Series of the MPIfG

MPIfG Discussion Papers

- DP 14/14
M. Höpner, M. Lutter
One Currency and Many Modes of Wage Formation: Why the Eurozone Is Too Heterogeneous for the Euro
- DP 14/13
D. Akyel
Ökonomisierung und moralischer Wandel: Die Ausweitung von Marktbeziehungen als Prozess der moralischen Bewertung von Gütern
- DP 14/12
M. A. McCarthy
Neoliberalism without Neoliberals: Evidence from the Rise of 401(k) Retirement Plans
- DP 14/11
M. Lutter
Creative Success and Network Embeddedness: Explaining Critical Recognition of Film Directors in Hollywood, 1900–2010
- DP 14/10
D. Krichewsky
The Socially Responsible Company as a Strategic Second-Order Observer: An Indian Case
- DP 14/9
J. Hien
The Return of Religion? The Paradox of Faith-Based Welfare Provision in a Secular Age

- DP 14/8
M. Höpner
Wie der Europäische Gerichtshof und die Kommission Liberalisierung durchsetzen Befunde aus der MPIfG-Forschungsgruppe zur Politischen Ökonomie der europäischen Integration
- DP 14/7
J. Beckert
Capitalist Dynamics Expectations and the Openness of the Future
- DP 14/6
M. Dewey
Crisis and the Emergence of Illicit Markets A Pragmatist View on Economic Action outside the Law
- DP 14/5
S. Zajak
Pathways of Transnational Activism: A Conceptual Framework
- DP 14/4
F. W. Scharpf
No Exit from the Euro-Rescuing Trap?
- DP 14/3
R. Mayntz
Markt oder Staat? Kooperationsprobleme in der Europäischen Union

MPIfG Books

- P. Gerlach
Der Wert der Arbeitskraft: Bewertungsinstrumente und Auswahlpraktiken im Arbeitsmarkt für Ingenieure
Springer VS, 2014
- G. Klas, P. Mader (Hg.)
Rendite machen und Gutes tun? Mikrokredite und die Folgen neoliberaler Entwicklungspolitik
Campus, 2014
- W. Streeck
Buying Time: The Delayed Crisis of Democratic Capitalism
Verso Books, 2014
- A. Afonso
Social Concertation in Times of Austerity: European Integration and the Politics of Labour Market Reforms in Austria and Switzerland
Amsterdam University Press, 2013
- D. Akyel
Die Ökonomisierung der Pietät: Der Wandel des Bestattungsmarkts in Deutschland
Campus, 2013
- J. Beckert, C. Musselin (eds.)
Constructing Quality: The Classification of Goods in Markets
Oxford University Press, 2013

Ordering Information

MPIfG Discussion Papers

Order printed copies from the MPIfG (you will be billed) or download PDF files from the MPIfG website (free).

MPIfG Books

At bookstores; abstracts on the MPIfG website.

www.mpifg.de
Go to *Publications*.

New Titles

Consult our website for the most complete and up-to-date information about MPIfG publications and publications by MPIfG researchers. To sign up for newsletters and mailings, please go to *Service* on the MPIfG website. Upon request to info@mpifg.de, we will be happy to send you our Recent Publications brochure.

ERPA

MPIfG Discussion Papers in the field of European integration research are included in the *European Research Papers Archive (ERPA)*, which offers full-text search options: <http://eiop.or.at/erpa>.

Das Max-Planck-Institut für Gesellschaftsforschung ist eine Einrichtung der Spitzenforschung in den Sozialwissenschaften. Es betreibt anwendungsorientierte Grundlagenforschung mit dem Ziel einer empirisch fundierten Theorie der sozialen und politischen Grundlagen moderner Wirtschaftsordnungen. Im Mittelpunkt steht die Untersuchung der Zusammenhänge zwischen ökonomischem, sozialem und politischem Handeln. Mit einem vornehmlich institutionellen Ansatz wird erforscht, wie Märkte und Wirtschaftsorganisationen in historische, politische und kulturelle Zusammenhänge eingebettet sind, wie sie entstehen und wie sich ihre gesellschaftlichen Kontexte verändern. Das Institut schlägt eine Brücke zwischen Theorie und Politik und leistet einen Beitrag zur politischen Diskussion über zentrale Fragen moderner Gesellschaften.

The Max Planck Institute for the Study of Societies conducts advanced basic research on the governance of modern societies. It aims to develop an empirically based theory of the social and political foundations of modern economies by investigating the interrelation between economic, social and political action. Using primarily an institutional approach, it examines how markets and business organizations are embedded in historical, political and cultural frameworks, how they develop, and how their social contexts change over time. The institute seeks to build a bridge between theory and policy and to contribute to political debate on major challenges facing modern societies.

