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Trade Policy and Structural Reforms at the Zero Lower Bound: Lessons Learned and Suggestions for Europe

Alessandro Barattieri, Matteo Cacciatore
and Francesco Costamagna

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Trade Policy and Structural Reforms at the Zero Lower Bound

Lessons Learned and Suggestions for Europe

Alessandro Barattieri, Matteo Cacciatore and Francesco Costamagna

Abstract

Calls for market reforms to help improve economic performance have become a mantra in European policy discussions. In the recent years, fears of a new wave of protectionism reopened the debate on the macroeconomic effects of raising tariff and non-tariff barriers. In this policy paper, we evaluate the consequences of such policy options for economies in a liquidity trap - i.e. at times of major slack and binding constraints on monetary policy easing (such as when the zero lower bound on nominal interest rates is binding). First, we analyse the consequences of protectionism through the lens of a benchmark business cycle model. We show that raising trade barriers has contractionary effects both domestically and abroad. Such detrimental effects are larger in a liquidity trap. We conclude that Europe should not engage in protectionism, even in response to an increase in the level of tariffs imposed by a major trading partner (such as the U.S.). We then review recent trends in product and labor market regulation across the European Union members. Using results from the academic literature, we argue that market reforms in Europe are unlikely to induce significant deflationary effects, suggesting that the inability of monetary policy to deliver interest rate cuts might not be a relevant obstacle to reform. While coordinated structural reforms across the EU members would maximise short- and long-term gains, legal considerations of the implementation of reforms across countries pose challenges to the harmonisation process.

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Contacts: Alessandro Barattieri (*corresponding author*), Collegio Carlo Alberto and ESG UQAM, alessandro.barattieri@carloalberto.org. Matteo Cacciatore, HEC Montreal and NBER, matteo.cacciatore@hec.ca. Francesco Costamagna, University of Turin and Collegio Carlo Alberto, francesco.costamagna@unito.it.

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1. INTRODUCTION

The headlines made by the current U.S. President Donald J. Trump threatening to pull out of the WTO, renegotiate the North-American Free Trade Agreement (NAFTA), and impose 35% and 45% tariffs on imports from Mexico and China respectively, reheated the debate about the short- to medium-run effects of protectionism. At the same time, calls for market deregulation have been part of policy discussions on both sides of the Atlantic. For instance, the Annual Growth Survey 2017, published by the European Commission in November 2016, invite Member States to increase their efforts in pursuing structural reforms, as they represent one of the components of the “virtuous triangle of economy policy,” together with policies boosting investments and promoting fiscal responsibility.

In this policy paper, we evaluate the consequences of trade policy and structural reforms in economies in a liquidity trap, i.e., at times of major slack and binding constraints on monetary policy easing.

In the first part of our analysis, we use a simplified version of the model developed by Barattieri, Cacciatore, and Ghironi (2017), who study both theoretically and empirically the cyclical effects of protectionism. First, we assess the consequences of an increase in protectionism imposed by a significant trading partner (e.g. the U.S.) on the EU. Then, we use the model to analyse the implications of a protectionist response of the EU (retaliation). Given the current European economic conditions, we are particularly interested in understanding the role played by binding constraints on monetary policy and weak aggregate demand for the effects of unilateral and global protectionism.

Model simulations show that protectionism has severe recessionary effects both domestically and abroad. As discussed by Barattieri, Cacciatore, and Ghironi (2017), protectionism affects domestic aggregate dynamics through different channels. First, other things equal, higher trade barriers reduce aggregate demand for domestic goods. Intuitively, as long as domestic and foreign goods are not perfect substitutes, households need to spend more resources to achieve a given level of consumption of imported goods. This, in turn, lowers real income, reducing the demand for domestic goods as well. Second, higher tariffs induce expenditure switching towards the relatively cheaper domestic goods. Other things equal, such an effect boosts the demand for domestic goods, increasing domestic production and output. Third, since the trade shock acts as a supply shock, the central bank faces a trade-off between stabilising output and inflation. Under a mandate of price stability, nominal interest rates increase to stabilise domestic inflation. This, in turn, further depresses current demand and output. Overall, the negative income effect and the contractionary monetary policy response prevail, leading output, employment, and investment to decline. Such detrimental effects are even larger in a liquidity trap, where real income is already considerably low.

We show that protectionism induces a recession in major trading partners, by reducing aggregate demand for their output. If the trading partner (in our case, the Euro Area) retaliates against foreign protectionism, the recessionary effects of such a trade war are more severe relative to foreign protectionism alone. We conclude that Europe should not engage in protectionism, even in response to an increase in the level of tariffs imposed by a major trading partner (such as the U.S.).

In the second part of the paper, we first review the main patterns of product and labor market reforms undertaken by several European countries in the last fifteen years. We show that most European countries slowed down the pace of product market reforms in the aftermath of the financial and economic crisis that started in 2008. Furthermore, we document a persistent heterogeneity in the level of market regulation across European countries, particularly in some key labor-market dimensions. Finally, we show that the trends in labor and product market regulation are only weakly correlated in the last fifteen years.

We then review the academic literature on the implication of labor and market reforms at the zero lower bound (ZLB). Some recent work cast doubts on the short-run desirability of structural reforms in

economies at the ZLB, due to potential deflationary effects that would increase real interest rates, thus depressing current demand. Cacciatore, Duval, Fiori, and Ghironi (2016, CDFG henceforth) address this issue by studying the consequences of primitive changes in market regulation when the economy is in a deep recession that has triggered the ZLB on nominal interest rates. They build a two-country, two-sector model of a monetary union featuring endogenous producer entry, search-and-matching frictions in the labor market, and nominal rigidities. They analyse the dynamic response of the monetary union to three different reforms that have featured prominently in policy debates over the years: i) product market reform, modeled as a reduction in regulatory costs of entry in the non-tradable sector; ii) employment protection legislation reform, namely a reduction in firing costs; iii) a decline in the generosity of unemployment benefits, that is a cut in the average replacement rate over an unemployment spell. Their main conclusion is that while business cycle conditions at the time of deregulation matter for the adjustment, the presence of the ZLB does not intrinsically induce recessionary effects of market reforms. In fact, reforms can be more beneficial when the ZLB is binding, as observed for product market reform and joint deregulation in products and labor markets. This result reflects the fact that reforms do not have deflationary effects in the first place, and some are indeed inflationary, at least in the first phase of the transition. Thus, fears of deflationary effects should not be used as an argument to delay the process of reforms in the current economic conditions.

A second important conclusion from the literature is that implementing a broad package of labor and product market reforms within a country and coordinating deregulation across the rigid members of the European Union would minimise transition costs and maximise long-run benefits.

In light of this result, we finally assess the nature of impediments to the process of regulation harmonisation across Union members. In particular, we explore some legal aspects related to the coordination of reforms across countries, with emphasis on the role played by the EU in this context. We focus in particular on the fact that the notion of structural reforms encompasses several distinct policy fields. In this context, the role that the E.U. can play and, thus, the legal cogency of the call directed to the Member States, varies markedly. Product market reforms mostly touch upon issues concerning the functioning of the internal market, where the E.U. has the competence to adopt legally binding directives. The situation is different when one considers labour market reforms, where the E.U. has only the possibility of pursuing actions to support or coordinate policy decisions taken at national level. Article 149 TFUE makes clear, in fact, that E.U. measures “shall not include harmonisation of the laws and regulations of the Member States”. We review the soft coordination mechanisms prevailing in the pre-crisis times, such as the Open Method of Coordination (OMC). We then discuss the post-crisis institutional novelties such as the European Semester and the increased role for conditionality, which provides E.U. institutions with an unprecedented capacity to push through structural reforms in those policy fields – e.g. labour – that fall in Member States’ exclusive competence.

The rest of the paper is organised as follows. In Section 2, we discuss the consequences of trade policy at the ZLB. In Section 3, we analyse the issue of market reforms at the ZLB. Section 4 concludes.

2. TRADE POLICY, MACROECONOMIC OUTCOMES AND THE ZERO LOWER BOUND

The goal of this section is twofold. First, we use a simplified version of the model developed by Barattieri, Cacciatore, and Ghironi (2017) to assess the consequences the E.U. of an increase in protectionism imposed by an important trading partner (e.g., the U.S.). Second, we use the model to analyse the implications of a protectionist response of the E.U. (retaliation). Given the current European economic conditions, we are particularly interested to the role played by binding constraints on monetary policy and weak aggregate demand in shaping the effects of unilateral and global protectionism.

Since the theoretical underpinning for the results presented below is discussed by Barattieri, Cacciatore, and Ghironi (2017), we refer the reader to their paper for a comprehensive analysis of the consequences of trade policy shocks for business cycle dynamics.

2.1. RELATED LITERATURE

Arguably, one of the main reasons why economists rarely discuss trade policy as a potential macroeconomic policy tool traces back to the long-lasting academic divide between the fields of international trade and international macroeconomics. Although these two fields deal with closely interconnected phenomena (trade flows, foreign direct investments, exchange rate, and current account dynamics, etc.), from the beginning of the eighties, and somewhat unnaturally, the two fields have been characterised by an ever-growing divide. Formal models of international macroeconomic dynamics did not usually address or incorporate the determinants and evolution of trade patterns. The vast majority of macroeconomic models took the pattern of international trade and the structure of markets for goods and factors of production as given. The determinants of trade patterns have been, in turn, analysed within models typically limited to comparisons of long-run positions or growth dynamics after changes in some determinants of trade. These models do not consider short- to medium-run business cycle dynamics and their effect on the pattern of trade over time.

All these considerations motivated the emergence of a new and growing literature addressing the interdependence between international trade flows and macroeconomic dynamics. This research program has received impetus from the seminal contribution by Ghironi and Melitz (2005), who develop a stochastic, general equilibrium, two-country model of trade and macroeconomic dynamics. In their framework, microeconomic features of a benchmark trade model (Melitz, 2003) have important consequences for macroeconomic variables. Macroeconomic dynamics, in turn, feed back into firm-level decisions, further altering the pattern of trade over time.

Since their article, a new and growing strand of the literature addresses the interdependence between trade and macroeconomic outcomes, which contributes to bridging the gap between international macroeconomics and trade theory.¹ Few recent works, in particular, examine the role of trade barriers in shaping aggregate dynamics. Barattieri (2014) is an example. He first documents the emergence from the mid-nineties of a strong negative relation between specialisation in the export of services and current account balances in a large sample of OECD and developing countries. He then proposes a “service hypothesis” for global imbalances, a new explanation based on the interplay between the U.S. comparative advantage in services and the asymmetric trade liberalisation process of goods trade versus service trade that took place starting from the mid-nineties.

¹ Some notable contributions include Atkinson and Burstein (2008), Antras and Caballero (2009), di Giovanni and Levchenko (2012), Jin (2012), and Gopinath and Neiman (2014).

In a related paper, Barattieri (2016) shows that the same mechanisms can also explain the current account divergence observed in the Euro Area in the early 2000s, with Germany (specialised in manufacturing) experiencing a large increase in trade surplus, and Portugal, Greece, and Spain (specialised in services) registering rising trade deficits. Asymmetries in the patterns of trade liberalisation are even more important than asymmetries in productivity dynamics.

Another recent paper that studies how trade barriers shape macroeconomic dynamics is Cacciatore (2014). He shows that while trade integration is beneficial for welfare by inducing higher productivity, unemployment can temporarily rise during the transitional adjustment. Labor market rigidities reduce gains from trade, even though they can mitigate short-run employment losses.

While these papers address the relevance of trade policy for macroeconomic outcomes, they abstract from the consequences of international trade and trade policy for the conduct of macroeconomic policy. Cacciatore and Ghironi (2014) address this issue by studying the consequences of trade integration for the conduct of monetary policy. They build a two-country model with heterogeneous firms, endogenous producer entry, and labor-market frictions. They show that the opening of trade has important consequences for monetary-policy trade-offs. First, when trade linkages are weak, the optimal monetary policy is inward-looking and requires significant departures from price stability both in the long run and over the business cycle. Second, as trade integration reallocates market share towards more productive firms, the need for positive inflation to correct long-run distortions is reduced. Third, increased business cycle synchronisation implies that country-specific shocks have more global consequences.

Finally, Barattieri, Cacciatore, and Ghironi (2017) study the consequences of protectionism for business cycle fluctuations. First, using data on tariff and non-tariff barriers, they present fresh evidence on the cyclical effects of an increase in trade barriers. Estimates from country-level and panel VARs show that protectionism acts as a supply shock, decreasing output and raising inflation in the short run. Second, they study the channels through which protectionism affects aggregate fluctuations in a small-open economy model that features firm heterogeneity, endogenous tradability, and nominal rigidities. Higher trade barriers reduce consumers' real income and reallocate market shares towards relatively more inefficient domestic firms. Nominal interest rates increase to stabilise domestic inflation. These contractionary effects more than offset the increase in production induced by expenditure switching towards domestic goods. Finally, the authors find that the short-run costs of protectionism can be larger in economic downturns, even when monetary policy is constrained by the zero lower bound on nominal interest rates. Their results show that protectionism has detrimental economic effects regardless of trading partners' retaliation.

2.2. MODEL AND CALIBRATION

We now turn to the analysis of protectionism for the E.U. To address the issue, we consider a two-country version of the benchmark model presented in Barattieri, Cacciatore, and Ghironi (2017). The only departure is that we abstract from firm heterogeneity in the production of tradable goods. Therefore, our model does not feature an endogenous reallocation of market shares across producers in response to trade policy shocks. We only discuss the main features of the model here. We refer to Barattieri, Cacciatore, and Ghironi (2017) and their Appendix for additional technical details.

We consider a world economy that consists of two countries, Home and Foreign, capturing the interdependence between the E.U. (Home) and another large trading partner like the U.S. (Foreign). We abstract from monetary frictions that would motivate a demand for cash currency in each country, and we resort to a cashless economy following Woodford (2003). To introduce a role for monetary policy, we introduce nominal rigidities in the form of wages stickiness.

Each country is populated by a unit mass of atomistic households. Each household is a monopolistic supplier of one specific labor input. The representative household maximises an expected inter

temporal utility function which depends on leisure and consumption. The latter includes both tradable and non-tradable goods. The basket of non-tradable goods aggregates differentiated varieties of domestically produced goods, while the basket of tradable goods aggregates domestic and imported consumption sub-bundles. In turn, each consumption sub-bundle aggregates differentiated varieties.

The production structure is the following. In each country, there are two vertically integrated production stages. At the upstream level, perfectly competitive firms use capital and labor to produce a non-tradable intermediate input. At the downstream level, two sectors use the intermediate input to produce tradable and non-tradable final consumption goods.

There is a unit mass of perfectly competitive intermediate producers. The representative intermediate firm produces output with a constant return to scale technology, using physical capital and labor inputs. We assume there is a competitive rental market in capital. Labor is a composite bundle of differentiated labor services supplied by the domestic households to a perfectly competitive labor agency. As is common in the literature, we assume that each household sets the nominal wage acting as a monopolistic supplier of the labor input.

In the non-tradable sector, there is a continuum of monopolistically competitive firms, each producing a different non-traded variety. Production requires intermediate inputs. We introduce price stickiness by following Rotemberg (1982) and assuming that non-tradable producers must pay a quadratic price adjustment cost. In equilibrium, optimal price setting implies that the real output price is equal to a markup over marginal cost. Price stickiness introduces endogenous markup variation as the cost of adjusting prices gives firms an incentive to change their markups over time in order to smooth price changes across periods.

The tradable sector also features a continuum of monopolistically competitive firms, each producing a different tradable consumption good variety. As for the non-tradable sector, production requires intermediate inputs and price adjustment is subject to quadratic costs. When serving the export market, producers face per-unit iceberg trade costs, which proxy tariff and non-tariff barriers, as well as trade costs that are not related to trade policy. We assume producer currency pricing: each producer sets a domestic price, and the law of one price (adjusted for the presence of trade costs) determines the export price in foreign currency.

International assets markets are incomplete, as the representative household can invest only in nominal riskless bonds denominated in Home and Foreign currency. To ensure a determinate steady-state equilibrium and stationary responses to temporary shocks in the model, we follow Turnovsky (1985), and, more recently, Benigno (2009), and assume a quadratic cost of adjusting Foreign bond holding. These costs are paid to financial intermediaries whose only function is to collect these transaction fees and to rebate the revenue to the households in a lump-sum fashion in equilibrium. Moreover, the household accumulates the physical capital and rents it to intermediate input producers in a competitive capital market.

Households set the nominal wage taking into account firms' demand in the utility maximisation problem and face a quadratic cost of adjusting the hourly nominal wage rate. The total real adjustment cost can be interpreted as units of final consumption that the household needs to purchase when implementing a wage change. Optimal nominal wage-setting implies that the real wage is a time-varying markup over the marginal rate of substitution between hours and consumption. Intuitively, the cost of adjusting wages gives firms an incentive to change their markups over time in order to smooth wage changes across periods.

The model features a series of market clearing conditions for the labor market, the product markets, and the bond markets. We close the model by specifying a monetary policy rule. The interest rate responds to deviations of inflation and the GDP gap from their long-run targets. We define the GDP gap as the deviation of model GDP from its level prevailing under flexible prices and wages. We explicitly take into account the possibility that the nominal interest rate cannot fall below zero.

We assume a symmetric calibration across countries. We interpret periods as quarters and choose parameter values from the literature to match features of euro area macroeconomic data. We refer to Barattieri, Cacciatore, and Ghironi (2017) for the calibration of the model. The only parameters that are specific to the present analysis are the share of home bias in the consumption of tradable goods, the share of non-tradable goods in total consumption, and the parameters values entering the interest-setting rule. We set home bias and the size of the non-tradable sector to match the share of total trade of GDP and the relative size of the service sector in the E.U. Concerning the monetary policy rule, we calibrate the smoothing parameter and the response to inflation and output gap following Gerdesmeier and Roffia (2003), who estimate a Taylor for the euro area.

2.3. THE EFFECTS OF PROTECTIONISM

2.3.1. The consequences of Foreign Protectionism on the Euro Area

We study the dynamic adjustment in response to a permanent increase in iceberg trade costs faced by Home producers when exporting to Foreign. This is tantamount to considering an increase in protectionism in the rest of the world. We assume that foreign trade costs increase by 15 percent. We consider a perfect foresight environment: the policy shock comes as an initial surprise to agents, who then have perfect foresight from that moment on. Given the large size of the shocks, transition dynamics from the initial equilibrium to the final equilibrium are found by solving the model as a nonlinear, forward-looking, deterministic system using a Newton-Raphson method, as described in Laffargue (1990). This method simultaneously solves all equations for each period, without relying on low-order, local approximations.

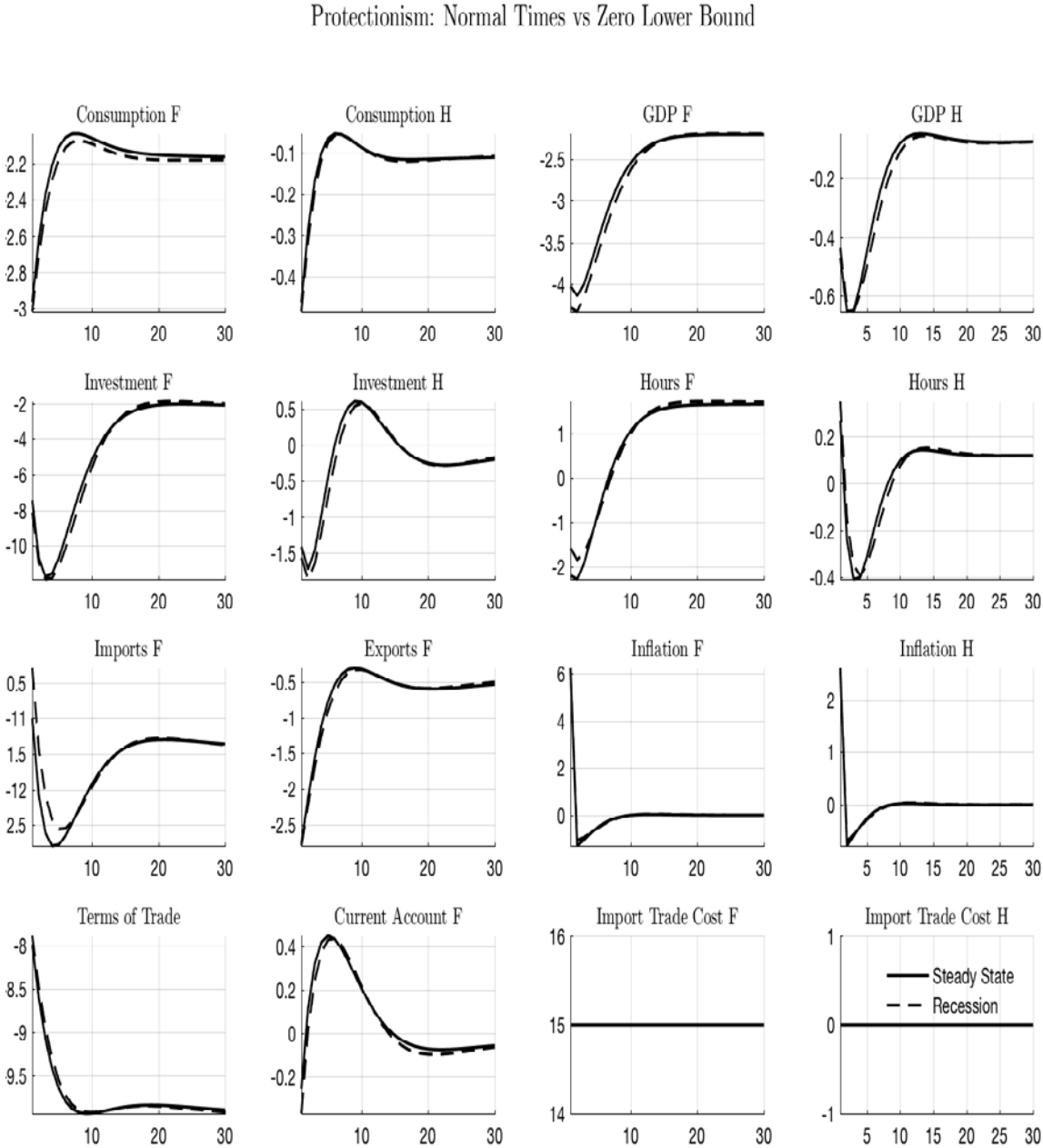
We begin to investigate the consequences of protectionism by studying the dynamic adjustment to protectionism in Foreign by assuming that the economy is at the non-stochastic steady state. Consistent with the analysis in Barattieri, Cacciatore, and Ghironi (2017), Graph 2.1 (continuous lines) shows that in the aftermath of the shock, output falls and inflation increases in the economy that imposes protectionism. The inflationary nature of the trade shock is easily understood: higher tariffs increase imports prices and raising other things equal the CPI index. This effect more than compensates the decline in the price of non-tradable goods, which falls due to lower aggregate demand.

As discussed by Barattieri, Cacciatore, and Ghironi (2017), in order to understand the Foreign output response, notice that there are three channels at work. First, other things equal, protectionism reduces aggregate demand for domestic goods. Intuitively, since domestic and imported goods are not perfect substitutes, households in Foreign spend more resources to achieve a given level of consumption of imported goods when trade costs are higher. This, in turn, lowers real income, reducing the domestic demand. Second, the increase in trade costs induce expenditure switching towards the relatively cheaper domestic goods in the Foreign economy. Other things equal, such an effect boosts domestic production and output in Foreign. Third, since the trade shock acts as a supply shock, the Foreign central bank faces a trade-off between stabilising output and inflation. The central bank increases the policy rate, since the inflationary effects of the trade policy shock prevails. This effect further depresses current demand and output. Overall, the negative income effect and the contractionary monetary policy results prevail, and output, employment, and investment declines in the Foreign economy.

In the long run, output, consumption, and investment permanently decline in the economy that imposes protectionism, reflecting once again the reduction in real income faced by consumers. Notice that in the short run, the output loss is larger compared to the long-run. The reason for this result is the presence of nominal rigidities. First, price stickiness implies that the relative price of non-tradable goods does not fall sufficiently, resulting in lower aggregate demand. Second, wage stickiness implies that hours per worker fall by more in the aftermath of the shock.

We now study the international transmission of protectionism, i.e. the consequences on the Home economy (i.e. the euro area) of higher tariffs imposed by the Foreign. As shown by Graph 2.1 (continuous lines), Foreign protectionism induces a recession at Home, although the output loss is smaller compared to the Foreign. While this result may seem surprising, the intuition is straightforward.

Graph 2.1. The Consequences of Foreign Protectionism



Note: Net effect of a permanent increase in the Rest-of-the-World (RoW) trade barriers in normal times (continuous lines) and in a recession with binding ZLB (dashed lines). Responses show percentage deviations from the initial steady state. The inflation rate is annualised.

Source: Authors' computations.

On one side, higher trade barriers increase the relative price of Home export, reducing aggregate demand for its output. At the same time, however, terms of trade (the price of imports relative to exports) fall, resulting in a positive wealth effect for the Home economy. Thus, other things equal, Home consumers increase their demand for domestic and imported goods. Notice that this effect is stronger when the share of non-tradable consumption is larger, since demand for Home goods increases by more. On net, the recessionary effects of lower export demand prevail, and the Home economy enters in a recession. In the long-run, output and consumption fall, although to a smaller extent.

Next, we investigate the transmission of Foreign protectionism when the economy is in a recession. In our crisis scenarios, we follow Barattieri, Cacciato, and Ghironi (2017) and assume that a risk premium shock hits the world economy, depressing output and generating deflation in both Home and Foreign. The central bank in each country attempts to provide monetary stimulus, but the ZLB constraint prevents them from completely offsetting the recession. We then study the consequences of Foreign protectionism in such macroeconomic conditions. We assume that at quarter 0 the Home economy is hit by a risk-premium shock. Next, we assume that at quarter 1 the Foreign economy increases trade barriers.

As discussed by Barattieri, Cacciato, and Ghironi (2017), protectionism in a liquidity trap features two key differences relative to normal times. First, the increase in trade costs occurs when aggregate income (and demand) is already low (because of the recession). Second, the monetary policy response is constrained by the zero lower bound on the nominal interest rate. In such an environment, an inflationary shock (such as protectionism) lowers the real interest rate (other things equal), boosting aggregate demand and output. However, Graph 2.1 (dashed lines) shows that the increase in Foreign trade barriers remains recessionary abroad. Moreover, Foreign protectionism hurts both economies by more relative to normal times. Intuitively, the permanent drop in Foreign real income is larger at crisis times, depressing both domestic and import demand more severely. In turn, lower demand reduces the inflationary effects of the trade shock (both domestically and abroad), dampening its expansionary effects through the real interest rate channel.

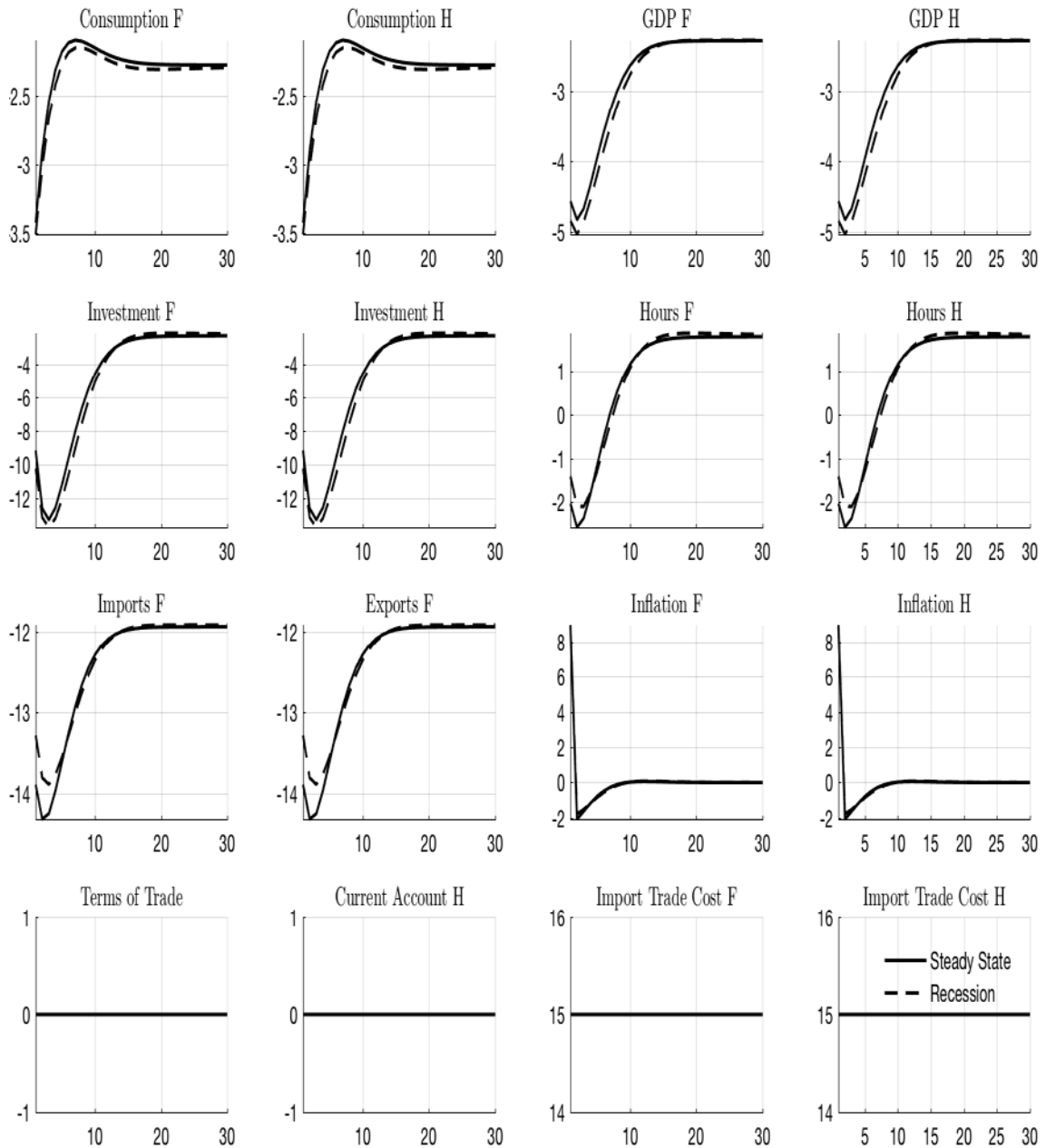
2.3.2. The consequences of a Trade War

We conclude our analysis by investigating the consequences of Home retaliation. For illustrative purposes, we consider a trade war in which both Home and Foreign increase tariffs.² As shown by Graph 2.2, retaliation results in much more severe recession for the Home economy, both in normal times and at the zero lower bound. Intuitively, the trade war further depresses the Home economy because it generates a much larger income loss. Moreover, Home no longer benefits from the positive wealth effect brought about by the reduction in the terms of trade in the presence of asymmetric shocks.

² The study of optimal Nash tariffs is left for future research.

Graph 2.2. The Consequences of a Trade War

Protectionism: Normal Times vs Zero Lower Bound



Note: Net effect of a permanent increase in E.U. and rest-of-the-world (RoW) trade barriers in normal times (continuous lines) and in a recession with binding ZLB (dashed lines). Responses show percentage deviations from the initial steady state. The inflation rate is annualised.

Source: Authors' computations.

3. STRUCTURAL REFORMS AT THE ZERO LOWER BOUND

Policies aimed at deregulating product and labour markets, the so-called ‘structural reforms’, have been the cornerstones of international agencies’ policy advice to the euro-area periphery since the onset of the recession. Calls for reduction of market regulation have predominantly focused on barriers to market entry, firing restrictions, and the generosity of unemployment benefits. The argument is that more flexible markets would foster a more rapid recovery and, in general, would result in better economic performance. Deregulation of product markets would help accomplish this by facilitating producer entry, boosting business creation and enhancing competition; deregulation of labour markets would do so by facilitating reallocation of resources and speeding up adjustment to shocks.

However, opposing views persist, with many fearing that reforms would entail short-run adjustment costs, including increased unemployment and higher business cycle volatility. These concerns are often expressed in relation to current macroeconomic developments, as recent calls for deregulation have come at a time of fiscal retrenchment and in an environment where the ability to use monetary policy is limited by the zero lower bound on interest rates and/or exchange-rate commitments (such as in the Eurozone). A recurrent argument is that the inability to manage transition dynamics with demand-side macroeconomic policies may result in more sizable transition costs, discouraging the implementation of reforms.

In this Section, we first review the process of structural reforms in the European Union. We show that most European countries slowed down the pace of product market reforms in the aftermath of the financial and economic crisis that started in 2008. Furthermore, we show that in the labor market, there is still a significant amount of heterogeneity in the level of regulation across European countries. Moreover, labor market reforms appear to be weakly correlated with product market reforms. We then examine such trends and the implications of structural reforms when implemented at the current economic juncture through the lenses of the recent academic literature. Finally, we discuss some legal aspects that are relevant to the process of harmonisation of regulation across the Union members.

3.1. THE PATTERN OF PRODUCT MARKET REGULATION IN EUROPE

In what follows, we use the OECD Product Market Regulation (PMR) Database to document a decline in the pace of product market reforms in European countries following the financial and economic crisis that started in 2008.

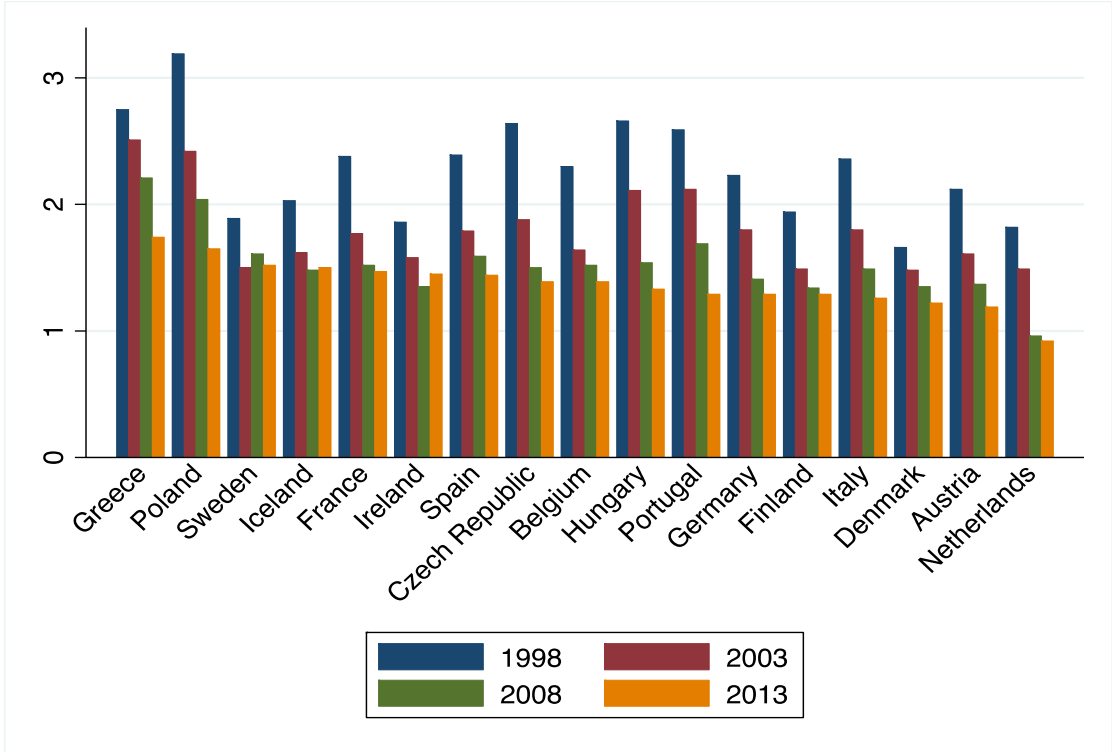
The OECD constructs an overall PMR indicator that combines three sub-indicators (state control, barriers to entrepreneurship, and barriers to trade and investment). These sub-indicators are based on a set of qualitative and quantitative assessments about the regulation of specific markets. Each indicator (including the overall index) ranges from 0 to 6, where 6 represents the maximum level of regulation. Since the PMR indicators are well known, we refer to Koske et al (2015) for the details about their construction.

Data for each indicator are available for 4 years: 1998, 2003, 2008, and 2013. Graph 3.1 presents the level of the overall OECD PMR indicators for those countries of the EU-27 for which data is available for all the four years. Notice that a decrease in the indicator reveals a liberalisation, while an increase of it corresponds to an increase in regulation.

Graph 3.1 shows that for all countries and all time periods (apart from Sweden between 2003 and 2008 and Ireland between 2008 and 2013), the indicator falls, showing a decline in product market regulation (i.e. liberalisation). However, for most countries (with the exceptions of Poland, Portugal, and Greece), the pace of liberalisation in the product markets slowed down significantly in the period

2008-2013 relative to the period 1998-2003. This is particularly true for France, Germany, Spain, Finland, and the Netherlands. These countries all experienced a significant drop in the pace of liberalisation.

Graph 3.1. OECD PMR Overall Indicator



Source: OECD PMR indicators and authors' calculations.

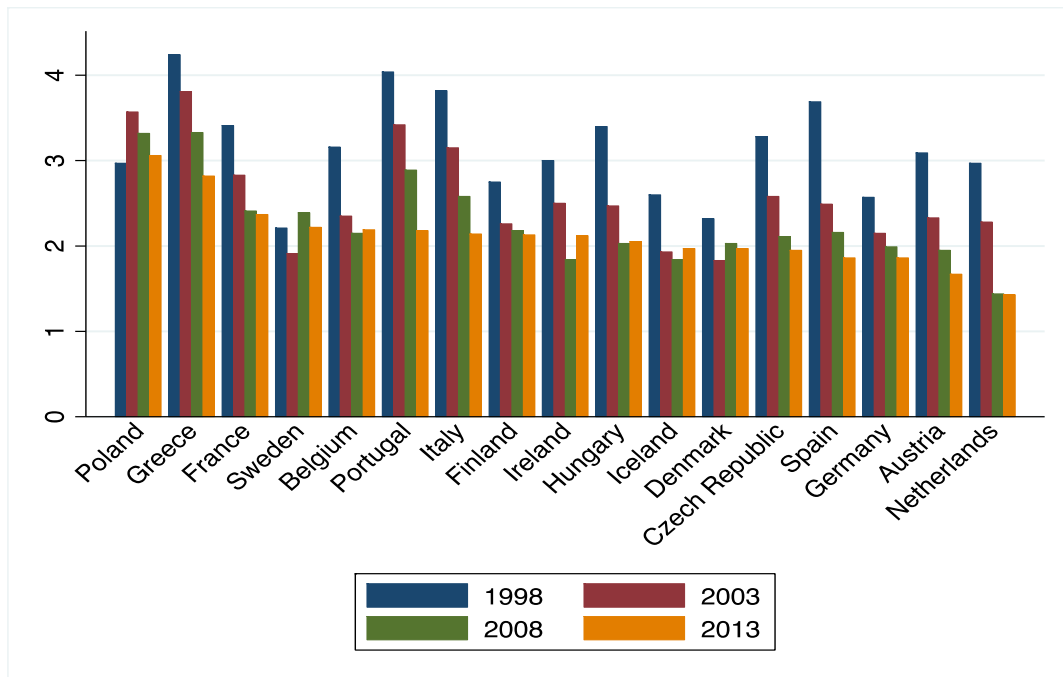
Graph 3.2, 3.3, and 3.4 report the results for each of the main components of the overall PMR indicator, namely state control, barriers to entrepreneurship, and barriers to trade and investment.

For state control (Graph 3.2), Portugal is the only country where the pace of liberalisation increases during the period 2008-2013 compared to previous periods. However, for a substantial set of countries the pace of liberalisation is reduced (part of this might be due to the partial nationalisation of the banking sector in some countries as a result of the 2008 financial crisis).

For barriers to entrepreneurship, there is a very significant decline in the pace of liberalisation for Italy, Spain, France, Ireland, and Sweden; while Poland and Greece registered a slight acceleration.

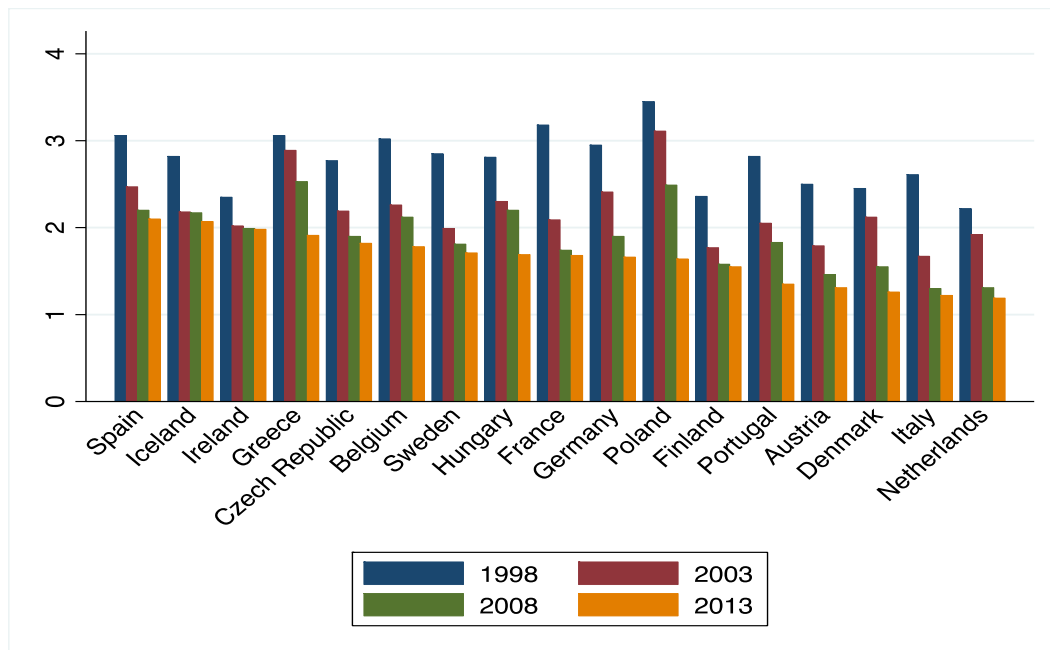
Finally, concerning the restrictions to trade and investment, in many European countries the pace of liberalisation between 2008 and 2013 is similar to what was observed in the previous decade. Two notable exceptions are Germany and Ireland, where the OECD indicators display a slight increase over the period 2008-2013, and Poland and Czech Republic, which registered high paces of liberalisations in the period 1998-2003. In the case of Germany, this mainly stems from the component of the index recording differential treatments between domestic and foreign government suppliers. In the case of Ireland, the increase predominantly reflects higher barriers placed in the domain of trade facilitations.

Graph 3.2. OECD PMR State Control



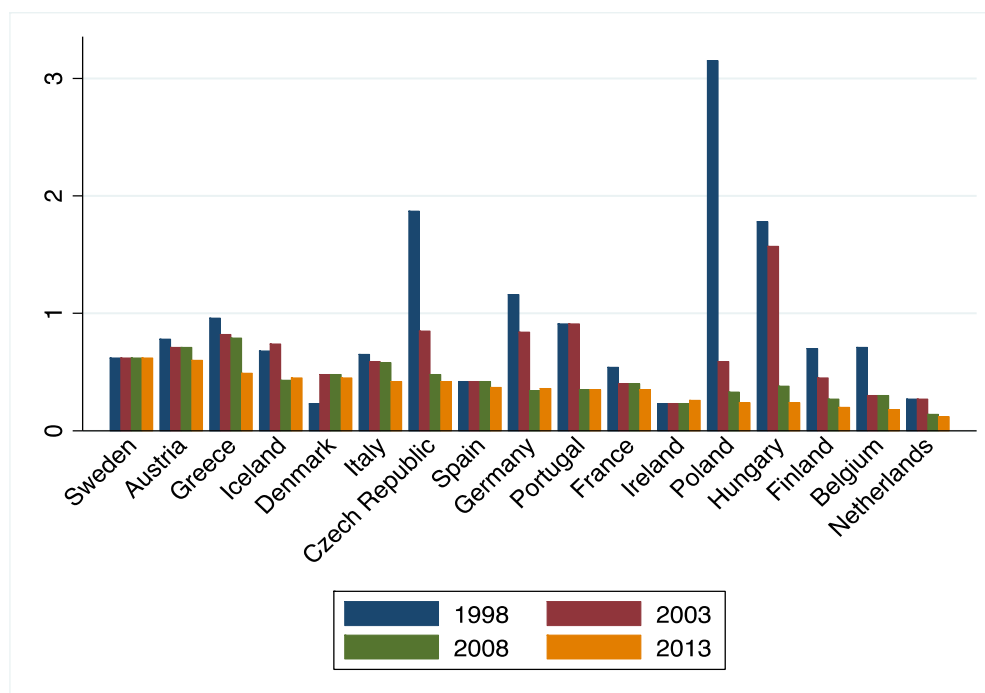
Source: OECD PMR indicators and authors' calculations.

Graph 3.3. OECD PMR Indicator on Barriers to Entrepreneurship



Source: OECD PMR indicators and authors' calculations.

Graph 3.4. OECD PMR Indicator on Trade Barriers



Source: OECD PMR indicators and authors' calculations.

Graphs 3.1-3.4 show that the overall pace of liberalisation has decreased. In addition, Graph 3.1 shows that the levels of product market regulation display a persistent and significant heterogeneity among European countries. In particular, looking at the level of the overall PMR indicator in 2013 for the EU countries, the Netherlands, the UK, and Austria feature the lowest levels of product market regulation, while Greece and Poland have the highest levels.

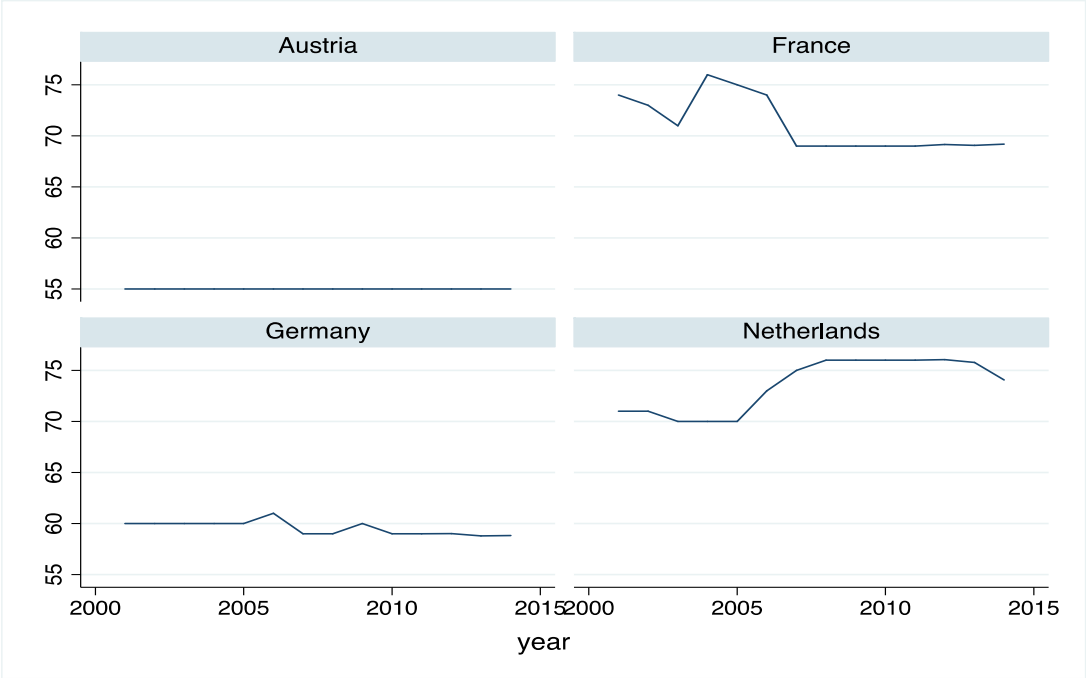
3.2. THE PATTERN OF LABOR MARKET REGULATION IN EUROPE

This Section illustrates salient patterns of labor market regulation for several E.U. countries over the last 15 years. We concentrate on two key dimensions: replacement rates of unemployment benefits and the stringency of employment protection legislation.

Replacement rates of unemployment benefits depend on many different dimensions, such as the length of unemployment, the family situation of the unemployed, and the pre-unemployment earnings. We present results for two indicators taken from the OECD statistical database: (i) the net replacement rate (NRR) for the initial phase of unemployment (twelve months) for a single person, and (ii) a grand average for several profiles (over 60 months of unemployment) – two pre-unemployment earnings levels (67% and 100% of average wage) and four family situations (single with no children, single with two children, married of working spouse with no children, and married of working spouse with two children). The first measure is useful to assess the income support for a young losing her job. The second measure is the benchmark NRR used to assess the overall generosity of unemployment benefits in a given country.

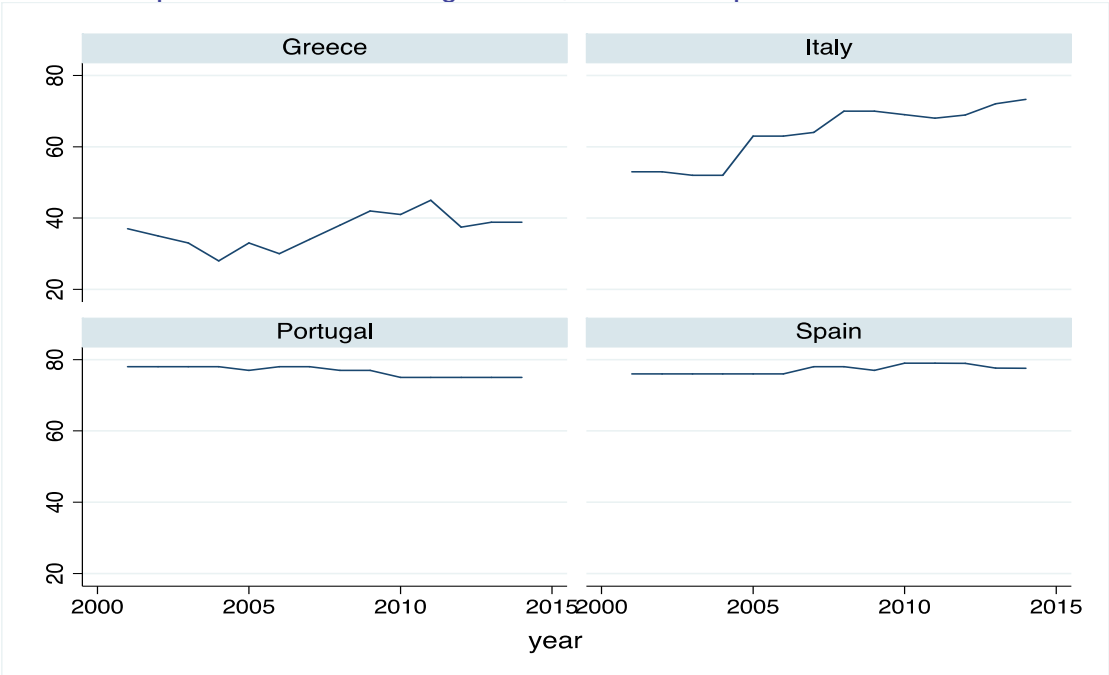
Graphs 3.5 and 3.6 report the first indicator for four continental European countries (Austria, France, Germany, and the Netherlands) and four southern European countries (Greece, Italy, Portugal, and Spain).

Graph 3.5. Net Replacement Rate for a Single Person, Continental Europe



Source: OECD and authors calculations. The net replacement rates refer to a single earner with previous earnings equal to 67% of the average wage for the initial phase of unemployment (12 months).

Graph 3.6. Net Replacement Rate for a Single Person, Southern Europe

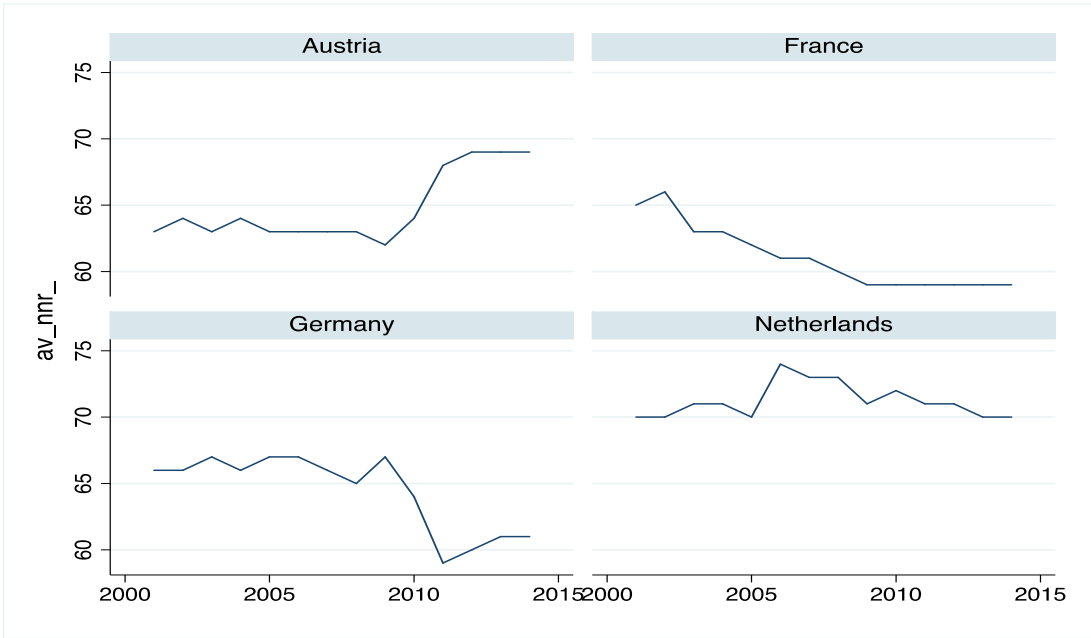


Source: OECD and authors calculations. The net replacement rates refer to a single earner with previous earnings equal to 67% of the average wage for the initial phase of unemployment (12 months).

The net replacement rate for a single person has increased in some countries (such as in Italy and the Netherlands), while it has fallen in France. In the remaining countries, the measure has remained fairly stable throughout time, albeit at very heterogeneous levels. Portugal and Spain display the most generous schemes, with NRR for a single person averaging to approximately 80 percent, while Austria and Germany have more intermediate levels. In Greece, there have been stable and low levels of NRR for a single person.

Graphs 3.7 and 3.8 report the average NRR. Here the picture is different although the heterogeneity across country and time is confirmed. In particular, Italy and Greece display a lower average NRR relative to Spain and Portugal. However, in all southern European countries, there are very limited dynamics over the period 2000-2015. Continental European countries feature higher average levels of NRR, but with heterogeneous dynamics: the average NRR increased significantly after 2008 in Austria, while it decreased in Germany. France exhibits a stable decline in NRR, while no clear trend is observed in the Netherlands.

Graph 3.7. Average Net Replacement Rate, Continental Europe

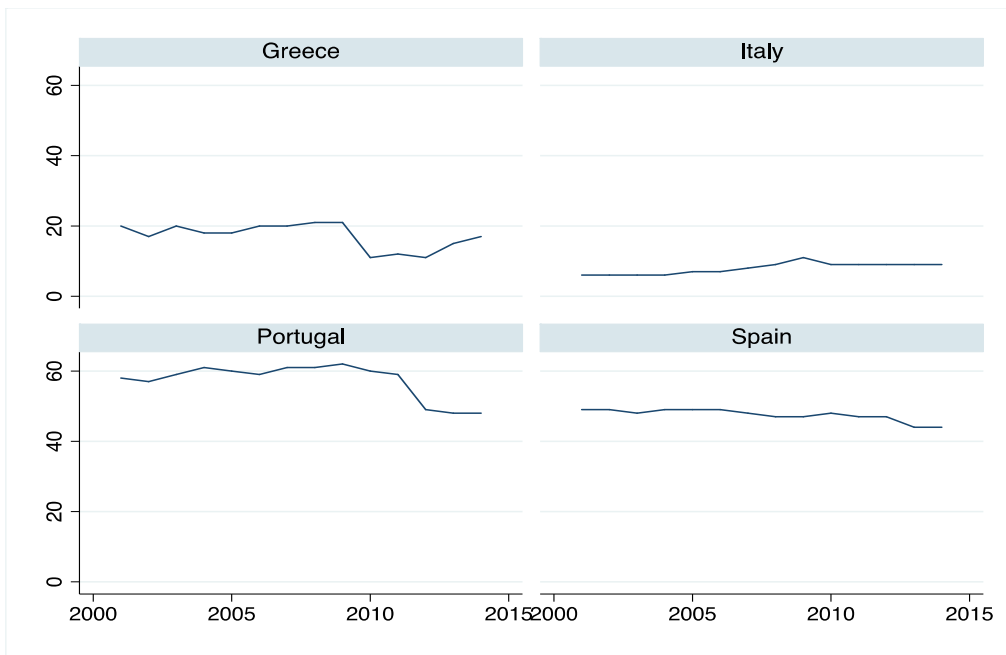


Source: OECD and authors calculations. Note: The Average Net Replacement Rate refers to an unweighted average (over 60 months) of two pre-unemployment earnings levels (67% and 100% of the average wage) and four family situations: single with no children, single with two children, married of working spouse with no children, and married of working spouse with two children.

We now turn to the OECD employment protection legislation (EPL) indicator. The indicator is a weighted sum of sub-indicators concerning the regulations for individual dismissals and additional provisions for collective dismissals. It ranges from 0 to 6, where 0 corresponds to the minimum level of regulation (difficulty in firing, for instance) and 6 to the maximum level. We refer to OECD (2013) for the details about the index.

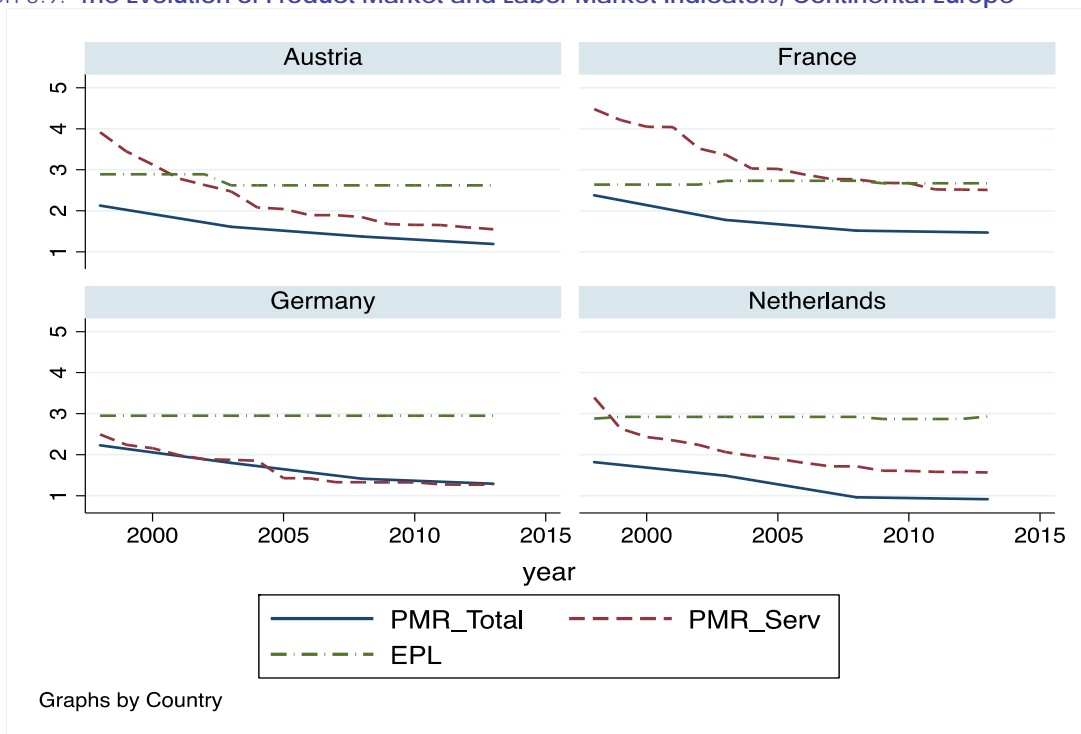
Graphs 3.9 and 3.10 (dashed-dotted lines) report the dynamics of the EPL index for the same European economies described before: continental European countries (Graphs 3.9) and southern European countries (Graph 3.10). The dash-dotted line appears quite flat in both groups of countries and over time, with the exception of Portugal, which displays a downward trend towards the end of the 2000s, and Greece at the beginning of their recent economic crisis. Overall, there seems to be less heterogeneity across the countries that we consider relative to unemployment benefits.

Graph 3.8. Average Net Replacement Rate, Southern Europe



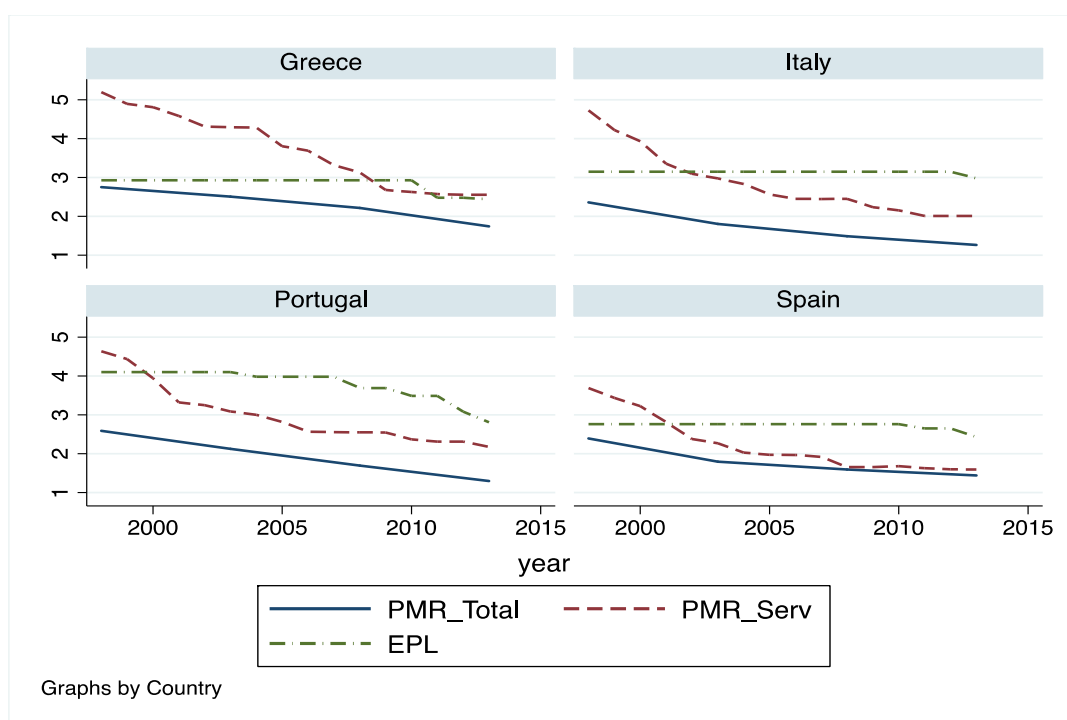
Source: OECD and authors calculations. Note: The Average Net Replacement Rate refers to an unweighted average (over 60 months) of two pre-unemployment earnings levels (67% and 100% of the average wage) and four family situations: single with no children, single with two children, married of working spouse with no children, and married of working spouse with two children.

Graph 3.9. The Evolution of Product Market and Labor Market Indicators, Continental Europe



Source: OECD and authors calculations.

Graph 3.10 The Evolution of Product Market and Labor Market Indicators, Southern Europe



Source: OECD and authors calculations.

To conclude, we address the relationship between product and labor market reforms. Graphs 3.9 and 3.10, we plot the evolution of the overall PMR index described before (interpolating the missing observations) and an additional OECD index for product market regulation in seven key service-sector industries (which also ranges from 0 to 6). While this second index is less representative than the overall PMR index, it is available at yearly frequencies, and therefore is more comparable with the labor market indicators.

The decline in the pace of reform in the product market is confirmed by the non-linearity of the blue solid lines (overall PMR indicator) and the red dashed lines (Services PMR indicator).

Overall, Graphs 3.9 and 3.10 suggest low coordination in policy actions between EPL and product market regulation in most European countries. A similar picture emerges when considering the dynamics of NRR versus PMR. This evidence suggests that the trends in the regulation of product and labor markets display weak co-movement for several countries, in particular, (among those we considered) Italy, Spain, Austria, and the Netherlands. By contrast, Portugal displays more correlated trends. A second conclusion that can be drawn by the data presented in this Section is the presence of significant heterogeneity in both product market policies and labor market policies across different European countries.

3.3. WHAT REFORMS? WHEN? AND WHAT ROLE FOR MACROECONOMIC POLICY? SOME LESSONS FOR EUROPE FROM THE RECENT LITERATURE

In the academic literature, a large body of research supports the view that lower product and labor market regulation improves long-run economic performance. However, there is an active debate regarding the short-term outcomes of market reform. A central issue in the post-crisis environment involves the consequences of structural reforms at a time in which central banks face binding

constraints on easing monetary policy, in particular because of the impossibility in pushing policy rates into negative territory unlimitedly – the so-called zero lower bound (ZLB) on nominal interest rates. Two geographical areas (namely, the euro area and Japan), where structural reforms have been advocated most forcefully, are in such a situation. At the heart of the debate lies the question of whether market reforms have important deflationary effects. As argued by Eggertsson (2010), in a liquidity trap, expectations of deflation increase real interest rates, thus depressing current demand – this is what he calls the paradox of toil.

Cacciatore, Duval, Fiori, and Ghironi (2016, CDFG henceforth) address this issue by studying the consequences of primitive changes in market regulation when the economy is in a deep recession that has triggered the ZLB on nominal interest rates. To this end, CDFG build a two-country, two-sector model of a monetary union featuring endogenous producer entry, search-and-matching frictions in the labor market, and nominal rigidities. They analyse the dynamic response of the monetary union to three different reforms that have been prominently featured in policy debates over the years: i) product market reform, modeled as a reduction in regulatory costs of entry in the non-tradable sector; ii) employment protection legislation reform, namely a reduction in firing costs; iii) a decline in the generosity of unemployment benefits – essentially a reduction in the average replacement rate over an unemployment spell. For each reform, they consider two alternative scenarios: i) market reform occurs in normal times - i.e. when the economy is not in a recession and the ZLB is not binding, ii) market reform occurs in a crisis that pushes the nominal interest rate to its lower bound. Their main conclusion is that while business cycle conditions at the time of deregulation matter for the adjustment, the presence of the ZLB does not intrinsically induce recessionary effects of market reforms. In fact, reforms can be more beneficial when the ZLB is binding, as observed for product market reform and joint deregulation in products and labor markets. This result reflects the fact that reforms do not have deflationary effects in the first place, and some are indeed inflationary, at least in the first phase of the transition. Consider, for example, a reduction in barriers to entry. While such reform reduces price mark-ups through well-understood pro-competitive effects, the downward pressure on prices is initially more than offset by two inflationary forces. First, lower entry barriers trigger entry of new producers, which increases demand for factors of production and thereby marginal costs. Second, incumbent producers layoff less productive workers in response to increased competition. Since the remaining workers have higher wages on average, marginal labor costs rise. The latter effect also explains why lower firing costs—which induce firms to lay off less productive workers—are not deflationary either, even though layoffs reduce aggregate demand all else being equal. Finally, while unemployment benefit cuts have a negative impact on wages and aggregate demand by weakening workers’ outside option in the wage bargaining process, this deflationary effect is off set by the positive general equilibrium impact of the reform on labor demand, which increases wages other things equal.

The modeling of market regulation and reform differentiates the analysis in CDFG from the approach of previous literature, which maintains the assumption that market reforms act as exogenous reductions in price and wage markups. As discussed by CDFG, such approach ignores the fact that empirically market regulation affects the incentives to create and destroy product and jobs, while price and wage dynamics are an endogenous outcome of market reforms. In turn, their analysis shows that the modeling of market regulation has first-order implications for understanding the channels through which reforms affect economic at the zero lower bound. The reason is that there is no simple across-the-board relationship between market reforms and the behavior of real marginal costs. This is because reforms affect both supply and demand in complex ways.

To understand this point, CDFG relate their findings to the analysis in Eggertsson, Ferrero, and Raffo (2014). In contrast to CDFG, Eggertsson, Ferrero, and Raffo interpret structural reforms as exogenous reductions in price and wage markups. In their model, deregulation entails near-term contractionary effects when monetary policy is constrained by the ZLB, since reforms fuel expectations of prolonged deflation.

Using larger-scale models of the euro area featuring richer transmission mechanisms—including investment, trade with the rest of the world, liquidity-constrained versus optimising households—

Gerali, Notarpietro, and Pisani (2015), Gomes (2014) and Vogel (2014) reassess this finding and find a smaller role of the ZLB, largely because exogenous markup cuts are no longer necessarily deflationary in general equilibrium.

Recent work highlights a second important dimension of the macroeconomic effects of structural reforms, namely the fact that business cycle conditions at the time of deregulation significantly affect the short-run adjustment, regardless of whether monetary policy is constrained by the zero lower bound. Cacciatore, Duval, Fiori, and Ghironi (2016a, 2016c) show that, for instance, a reduction of firing costs entails larger and more persistent adverse short-run effects on employment and output when implemented in a recession, even though the zero lower bound per se does not result in additional costs. The reason is that, for a given level of aggregate productivity, positive firing costs imply that relatively unprofitable jobs survive job destruction. When aggregate productivity is below trend, the share of unprofitable matches is greater compared to normal times. Consequently, the removal of firing costs leads to much larger job destruction, which further depresses aggregate demand and output. By contrast, a reduction in unemployment benefits can boost employment and output by more in a recession compared to normal times.

The positive effect is due to the fact that, at times of high unemployment, a larger pool of workers is searching for jobs. As a result, the probability of filling a vacancy is higher, and thus the expected cost of job creation is lower in a recession. Furthermore, since real wages are already low relative to normal times, the same reduction in unemployment benefits generates more job creation by firms. A third key insight from the literature is that it takes time for reforms to payoff, typically at least a couple of years (Cacciatore and Fiori, 2015, and Cacciatore, Duval, Fiori, and Ghironi, 2016b). This is partly because the benefits materialise through firm entry and increased hiring, both of which are gradual processes, while any reform-driven layoffs are immediate. Some reforms such as reductions in employment protection increase unemployment temporarily (Cacciatore and Fiori, 2015). Implementing a broad package of labor and product market reforms minimises transition costs within a country. This result implies that Southern European countries should not only increase their reform efforts, but they should also pursue a reforms agenda that simultaneously lift market regulation both in the product and labor markets.

Finally, there is an important open-economy dimension of structural reforms. Cacciatore, Fiori, and Ghironi (2016) show that asymmetric deregulation is less beneficial than joint reforms across trading partners, even more so in a monetary union. The reason is twofold. First, symmetric reforms across trading partners boost aggregate demand by more, reducing short-run transition costs. Second, asymmetric deregulation introduces additional monetary policy trade-offs in a monetary union, as the central bank must strike a balance between countries that differ in the desirability of price stability both in the long run and over the cycle. Internationally synchronised reforms eliminate this trade-off, resulting in larger welfare gains.

Based on the above discussion, we conclude that fears of short-run negative macroeconomic effects of structural reforms at the ZLB should not be used as an argument to slow down the process of reforms, whose long-run positive effects are beyond dispute. Nevertheless, implementing a broad package of labor and product market reforms within a country and coordinating deregulation across the rigid members of the European Union minimise transition costs and maximise long-run benefits.

This conclusion is different from what was observed in the data, which suggested a weak correlation between the dynamics of product and labor market regulation, as well as persistent heterogeneity in the levels of regulation across European countries. Next, we explore the extent to which legal aspects of market reforms may contribute to explain such patterns.

3.4. LEGAL ASPECTS

‘Structural reforms’ is a notion that encompasses several distinct policy fields. For instance, the above mentioned Annual Growth Survey put under this heading measures that aim at creating jobs and enhancing skills, modernising the welfare state and, lastly, deepening the single market, so to make national markets bigger.

This Section aims at exploring the role that the EU can play in the context of structural reforms and the legal cogency of the calls directed to the Member States. The analysis begins with distinguishing between product market reforms and labour market reforms, focusing on the different allocation of competencies between supranational and national authorities in each of these contexts. Second, with specific regard to labour market reform, the paragraph looks at the impact of the reform of economic policy coordination mechanisms at supranational level, through the creation of the European Semester, upon the Member States’ capacity to fully retain their control over issues that EU Treaties reserve to their competence, such as the regulation of the labour market. Third, the analysis examines the financial assistance programmes, exploring the way in which conditionality has considerably enhanced EU institutions’ capacity to force Member States to adopt labour market reforms.

Many of the product market reforms – with taxation being an exception in this regard – touch upon issues concerning the functioning of the internal market. This is one of the areas where the EU has the competence to adopt directives – i.e. legally binding acts – “for the approximation of the provisions laid down by law, regulation, or administrative action in Member States” (Article 114 TFEU). Should a State fail to timely transpose these directives into its national legal order, the Commission can launch an infringement procedure against it.

Furthermore, liberalisation of the product market – one of the key objectives pursued by EU-induced structural reforms – can be achieved through negative integration, i.e. through the removal by the Court of Justice of the obstacles posed by national rules or practices to the free circulation of goods, services and capitals. The Court has progressively expanded the scope of negative integration, going from the prohibition of discrimination based on nationality to the adoption of a market access approach. As stated in the *Dassonville* judgment of 1974, “[a]ll trading rules enacted by Member States which are capable of hindering, directly or indirectly, actually or potentially, intra [Union] trade are to be considered as measures having an effect equivalent to quantitative restrictions” and, thus, prohibited, unless the State proves that they can be justified under a public interest requirement. This potentially brings any item of national legislation and regulation under the scrutiny of the Court of Justice, since, even when acting in fields that fall under their exclusive competence, Member States must respect EU law and, in particular, not to infringe fundamental economic freedoms (see *Kohll* judgment of 28 April 1998, para. 19).

The situation is different when examining labour market reforms. With regard to employment regulation, the EU has primarily – and almost exclusively – the power to carry out actions that support or coordinate policy decisions taken at national level. Article 149 TFUE makes clear that, in any case, EU measures “shall not include harmonisation of the laws and regulations of the Member States”. The same applies with regards to other ‘social’ policy fields, such as social security and healthcare.

Traditionally, coordination efforts mainly rested on soft law mechanisms, such as guidelines and indicators, benchmarking and sharing of best practice. In the early ‘90s, the EU launched the Open Method of Coordination (OMC), a form of intergovernmental policy-making that does not result in binding EU legislative measures and does not require Member States to introduce or amend their laws. After the inclusion of an “Employment” title in the Treaty, in November 1997 Member States launched the European Employment Strategy to strengthen the coordination of national employment policies. The OMC then spread into other policy areas, such as the modernisation of social protection, social inclusion, pensions, and healthcare. Even though there were differences among the various processes, the essential structure was similar across the different policy areas. First, the European Council set the policy goals; secondly, the Council selects the indicators to evaluate national

performances; third, Member States adopt measures to implement the guidelines in accordance with their needs and preferences; lastly, these efforts are measured and compared by the Commission. Although not legally binding, this process should put pressure on Member States towards the adoption of the ‘right’ solutions or, to put it differently, the best practices.

The OMC has been criticised on several accounts. For instance, the European Parliament questioned its democratic legitimacy, warning against the risk that this procedure could endanger the Community method (European Parliament 2003) and labelling it as “legally dubious” (European Parliament 2007). Other commentators alleged the lack of effectiveness of the OMC in pushing forward the reforms and its invisibility in the national political debates (Hatzopoulos 2007). Even the Commission openly voiced its dissatisfaction with the inability of the social OMC to deliver the expected results, with regards to pension reforms in particular (Commission 2008).

Calls for advancing beyond pure voluntarism in the coordination of economic policies intensified with the eruption of the crisis. The original EMU constitutional gap deriving from the choice to create a common currency without having an economic union in place was considered one of the main reasons of the crisis. The reform of the economic governance sought to fill this gap, by tentatively strengthening EU institutions’ capacity to push forward structural reforms in the social and labour fields. All of this took place without reforming the Treaties and, thus, without any change in the allocation of competencies between the national and the supranational levels in these areas.

One of the components of the post-crisis European economic governance is the European Semester – a framework that, after being launched as a code of conduct for the implementation of the Stability and Growth Pact (SGP), has been fully codified by the so-called Six-Pack and by Regulation (EU) No. 1175/2011 on the preventive arm of the SGP. The Semester brings under the same umbrella different strains of EU policy coordination and surveillance that touch upon both economic and social policies, with the specific objective of increasing consistency among instruments that have different legal bases and rely upon distinct enforcement mechanisms. For this reason, the Semester’s function has been described as “the coordination of coordination” (Armstrong 2012).

The Semester rests upon three main pillars, namely the Europe 2020 Integrated Guidelines, the Stability and Growth Pact, and the Macroeconomic Imbalances Procedure. It starts in November, with the adoption of the Annual Growth Survey (AGS) by the Commission. After its endorsement by the European Council in the spring meeting, the content of the AGS should feed into Member States’ National Reform Programmes (NRP) and Stability or Convergence Programmes (SCP). NRPs are policy documents that describe Member States’ strategy in areas such as economic growth, employment, and social inclusion for the following twelve months. Stability Programmes – which take the name of Convergence Programmes for non-Euro States – are to provide the Commission with all the necessary information for the purpose of multilateral surveillance to be conducted under Article 121 TFEU. To this end, they must contain a long list of detailed information on, inter alia, the medium term budgetary objective together with the adjustment path towards it, implicit or contingent government liabilities, the consistency of the SCP with the national reforms plan, and the main assumptions about economic developments covering the preceding, the current, and the following three years.

Both of these documents must be submitted by the 30th of April every year, at a time in which national budgetary processes are still at an early phase or are yet to begin. In May, the Commission evaluates national reform and fiscal plans and issues Country-specific recommendations that set out the actions to be taken by the concerned State. These recommendations are first endorsed by the European Council and then discussed by the employment, economic and finance, and competitiveness formations of the Council. In July, Country-specific recommendations are finally approved by the ECOFIN Council.

The approval of the Two-Pack and, in particular, the adoption of Regulation (EU) No. 473/2013 adds a further step to the Semester, at least with regards to Euro States. Indeed, the latter are required to

submit to the Commission, by the 15th of October, a draft budgetary plan for the following year, including a series of information regarding, for instance, general government expenditure by function (including education, health care and employment), as well as the description and the quantification of expenditure and revenue measures included in the national draft budget. This allows the Commission to examine the measures proposed by national Governments in a period in which these measures and their modes of implementation are under discussion before national parliaments. The Commission has the power to intervene the debate and, should it identify serious non-compliance with SGP obligations, request the concerned State to submit a revised plan within three weeks.

The European Semester potentially enables EU institutions to exercise policy formulation, supervision, and guidance on issues that fall within Member States' competences, such as the provision of social services or the regulation of the labour market. The new framework is not a mere sum of past soft law processes; coordination activities are now carried out under the shadow of hard law measures, which could include financial sanctions for Euro States, and can be adopted against those member States that fail to comply with the recommendations. These measures can be adopted under the SPG (which has been revised and reinforced by the Six Pack) or the Macroeconomic Imbalance Procedure (which has been introduced *ex novo* by the same legislative package). Chalmers (2013) argued that the new framework brings EU institutions and Member States in a process of co-government that "goes to the structure and rationale of a State fiscal and welfare systems". Admittedly, the use of this notion may seem to be an overstatement of the role that EU institutions can play in this context, especially in the light of the fact that national authorities' non-compliance with the recommendations is still quite high. However, the term captures well the essence of a process that goes beyond merely setting quantitative constraints to Member States' spending capacities.

By these means, the European Semester allows EU institutions to elaborate a positive vision on how the welfare state and labour relations should be organised (Costamagna 2013). The paradigm places much emphasis on the principles of equality of opportunities, individual responsibility, and reduced welfare dependency. Increased access to employment – to be achieved through the introduction of higher levels of flexibility in the labour market and the reduction of wages – is considered as the main instrument to foster social inclusion. Accordingly, activation policies play a pivotal role, as access to social assistance is made conditional upon the need for the beneficiary to take specific steps towards his integration or re-integration into the labour market. Recommendations issued in the context of the European Semester are very much consistent with this model: Member States have been repeatedly recommended to intervene on their labour market legislation in order to enhance their competitiveness. In particular, they have been asked to carry out the following in consultation with the social partners and in accordance with national practices: to revise the wage bargaining and indexation systems, to modify the law on dismissal, and to introduce greater flexibility with regards to permanent contracts and working time arrangements.

A second pillar of the new European economic governance, alongside economic policy coordination, is financial assistance to those countries that are no longer able to finance themselves in the market as a result of being heavily affected by the crisis. A foundational element of these programmes is the choice to tie the disbursement of the assistance to the fulfilment by the beneficiary State of a number of conditions generally contained in a Memorandum of Understanding. This has been the case in the First Greek Package (2010) and in all subsequent packages also concerning other Member States (Ireland, Portugal, Spain, Cyprus).

Structural reforms in the labour market and, more generally, in the social field, represent a key component of the EU conditionality policy. For instance, the Greek Memorandum of Understanding of March 2010 established that "[i]n dialogue with social partners, the government proposes and parliament adopts legislation to reform wage bargaining system in the private sector, which should provide for a reduction in pay rates for overtime work and enhanced flexibility in the management of working time. Allow local territorial pacts to set wage growth below sectoral agreements and introduce variable pay to link wages to productivity performance at the firm level". The Second Adjustment Programme for Greece was even more penetrating on this point, since "the outcome of the

social dialogue to promote employment and competitiveness fell short of expectations”. Therefore, the Greek Government undertook to adopt a series of measures, prior to the disbursement of the aid, such as a 22 percent reduction of minimum wage, the introduction of sub-minimum wages for young people (10% less than the normal rate), and the reform of wage-setting mechanisms, leading to an “overhaul of the national general collective agreement”. The Third Adjustment Programme, approved in 2015, envisaged the launch of a consultation process touching upon several key aspects of the labour market. The process should lead to the reform of the rules governing collective dismissal, industrial action, and collective bargaining, in an effort to bring them “in line with the best practice in the EU”. Conscious of the inconclusiveness of this reference, the document added that, in any case, “[c]hanges to labour market policies should not involve a return to past policy settings which are not compatible with the goals of promoting sustainable and inclusive growth”.

Similarly, Portuguese authorities accepted to reform employment protection legislation, by mainly reducing severance payments and broadening the cases of permitted individual dismissals, as well as “promote wage developments consistent with the objectives of fostering job creation and improving firms’ competitiveness with a view to correct macroeconomic imbalances”. Furthermore, in seeking to align wage developments with productivity, the Portuguese Government committed to decentralising the bargaining process, by strengthening the role of firm-level agreements vis-à-vis sectoral collective ones.

Similar conditions were present also in the Irish Economic Adjustment Programme, as Irish authorities accepted to force a downward adjustment of wages, by reforming “the minimum wage in such a way as to foster job creation”.

Conditionality is a constant feature in all of the financial assistance packages and mechanisms that have been adopted to salvage EU Member States in this time of economic difficulty. This was already the case with earlier balance-of-payments assistance programmes used to rescue non-Euro States, such as Hungary, Latvia, Romania, and more recently with the financial package hastily arranged to save Greece in 2010. In the latter case, the Eurogroup stated in May 2010 that stability support could be granted only “on the basis of a programme which has been negotiated with the Greek authorities by the Commission and the IMF, in liaison with the [European Central Bank]”.

Likewise, conditionality constitutes a foundational element of all the financial mechanisms that have been created after the eruption of the crisis. Article 3 of Regulation 407/2010, which established the European Financial Stabilisation Mechanism (‘EFSM’), requires the beneficiary Member State to conclude with the Commission a Memorandum of Understanding detailing the policy conditions that it had to respect in order to receive the support. The same applies to the European Financial Stability Facility (‘EFSF’), established in 2010 as a temporary mechanism to provide financial help to Euro area Member States, and subsequently the European Stability Mechanism (‘ESM’). In particular, Article 12 of the ESM Treaty clarifies that “the ESM may provide stability support to an ESM Member subject to strict conditionality”. Lastly, conditionality plays a pivotal role in the context of the Outright Monetary Transactions announced – but never implemented – by the European Central Bank (‘ECB’) in 2012. In this context, sovereign bonds purchases had to be subjected to the policy conditions stipulated in a EFSF or ESM programme. More recently, it was established that sovereign bonds purchases under the Public Sector Purchase Programme were conditioned to a positive outcome of the programme review.

The choice to make financial assistance conditional on the respect by the beneficiary State of a macro-adjustment programme owes much to the influence exercised by the International Monetary Fund (‘IMF’) in shaping the EU response to the sovereign debt crisis. However, conditionality was not just an external imposition; the need to make financial assistance subject to the respect of strict policy requirements has been a firm request put forward by some EU Member States and by EU institutions alike. This led to grant conditionality constitutional status. In 2011, a new paragraph was added to Article 136 TFEU, allegedly to allow for the establishment of the European Stability Mechanism,

which mandates that “the granting of any required financial assistance under the mechanism [...] subject to strict conditionality”.

Conditionality provides EU institutions with an unprecedented capacity to push through structural reforms in policy fields that fall within Member States’ exclusive competence, such as labour. From a legal perspective, conditions are not imposed by EU institutions, but they are formulated as unilateral commitments by the beneficiary State and included in documents that are not EU law, as is also the case with the Memoranda of Understanding. Yet, EU institutions play a major role in defining the content of these conditions, as well as in monitoring their implementation. In particular, Article 13 of the ESM Treaty establishes that the Commission, in liaison with the European Central Bank and, if necessary, the International Monetary Fund, are to negotiate with the requesting State the Memorandum of Understanding detailing the conditionality attached to the financial assistance facility. Moreover, the Commission signs the MoU on behalf of the ESM Board of Governors. Lastly, it is also entrusted with monitoring compliance with the conditions set by the MoU; should the State fail to comply, the ESM Board of Directors, acting on the basis of a report by the Commission, can halt the disbursement of financial assistance’s tranches.

4. CONCLUSIONS

In this policy paper, we evaluated the consequences of trade policy and structural reforms in economies in a liquidity trap, i.e., at times of major slack and binding constraints on monetary policy easing.

In the first part of our analysis, we used a simplified version of the model developed by Barattieri, Cacciatore, and Ghironi (2017) to study the effects of protectionism, both in normal times and in recessions. Model simulations show that protectionism has severe recessionary effects both domestically and abroad. Protectionism induces a recession in major trading partners, by reducing aggregate demand for their output. If the trading partner (the Euro Area in our case) retaliates against foreign protectionism, the recessionary effects of such a trade war are more severe relative to foreign protectionism alone. We conclude that Europe should not engage in protectionism, even in response to an increase in the level of tariffs imposed by a major trading partner (like the U.S.).

In the second part of the paper, we reviewed the main patterns of product and labor market reforms undertaken by several European countries in the last fifteen years, showing that the trends in labor and product market regulation are only weakly correlated in the last fifteen years. Reviewing the recent academic literature on the implications of labor and market reforms at the zero lower bound (ZLB), however, revealed that by implementing a broad package of labor and product market reforms within a country and coordinating deregulation across the rigid members of the European Union, transition costs can be minimised and long-run benefits can be maximised. In light of this result, we finally assessed the nature of impediments to the process of regulation harmonisation across Union’s members. In particular, we explored some legal aspects related to the coordination of reforms across countries, with emphasis on the role played by the EU in such context.

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