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EXTERNAL IMBALANCES IN THE EUROPEAN UNION AND THEIR ADJUSTMENT AFTER THE FINANCIAL CRISIS

ZEWNĘTRZNE ZAKŁÓCENIA RÓWNOWAGI MAKROEKONOMICZNEJ W UNII EUROPEJSKIEJ I ICH KOREKTA PO KRYZYSIE FINANSOWYM

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Streszczenie. W obszarze Unii Europejskiej, szczególnie w strefie euro, przed kryzysem rozwinął się poważny brak równowagi makroekonomicznej. Brak zrównoważenia oraz jego determinanty są często uważane za jedne z najważniejszych przyczyn ogromnego wstrząsu w gospodarce europejskiej spowodowanego przez kryzys. Proces odwracania nierównowagi, który wystąpił po kryzysie, był przyczyną wytworzenia znacznych nacisków regulacyjnych w wielu krajach. W artykule zaprezentowano proces dostosowania w reakcji na zewnętrzne zakłócenia równowagi makroekonomicznej w UE. Ponadto wskazano wskaźniki, które są powiązane z nierównowagami oraz zbadano, w jaki sposób wartości wskaźników związanych z nierównowagą zewnętrzną zmieniły się po kryzysie. Kładąc nacisk na rachunku obrotów bieżących i bilansu handlowego możemy twierdzić, że korekta nierównowagi może być spowodowana zmianami w popycie krajowym, wolumenem kredytów udzielanych dla sektora prywatnego i realnymi efektywnymi kursami walut. Wyniki sugerują również, że nierównowaga zewnętrzna znajduje większe odzwierciedlenie w rentowności obligacji skarbowych po kryzysie.

Key words: current account, demand, long-term interest rate, private sector credit, real effective exchange rate, trade balance.

Słowa kluczowe: bilans handlowy, długoterminowe stopy procentowe, efektywny kurs walutowy, kredyt dla sektora prywatnego, popyt, rachunek bieżący.

INTRODUCTION

Macroeconomic imbalances, in particular the U.S. current account deficit and China's current account surplus, are considered to be one of the prime driving factors behind the emergence of the global financial and economic crisis. This role of imbalances is particularly true in a monetary union since the Member States relinquish both their right to conduct an autonomous monetary policy and the option to use exchange rates as a policy tool. Hence, the emergence of macroeconomic imbalances among European Union (EU) member states is often seen as a major underlying factor of the recent European debt crisis. The seriousness of the imbalances and their effects along with the aim of the European authorities to identify and tackle these imbalances led to establishment of a new surveillance tool incorporating rules to prevent future imbalances. This tool was put into existence in 2011 and labelled the Macroeconomic Imbalance Procedure (MIP).

Before we continue with the analysis of imbalances in the EU, it is necessary to clarify what it is meant by macroeconomic imbalances. One possible definition was given by Wieser (2011).

“A macroeconomic imbalance is the (negative or positive) position of a domestic, external or financial variable in relation to a certain norm. This position may – if uncorrected over time – make the national savings/investment balance so untenable that it self-corrects abruptly, thereby causing significant adjustment shocks domestically; in the case of large economies also abroad”.

The imbalances are also defined in official documents of the EU, in particular in the Regulation (EU) No 1176/2011. Article 2 of the Regulation says that “imbalance means any trend giving rise to macroeconomic developments which are adversely affecting, or have the potential adversely to affect, the proper functioning of the economy of a Member State or of the economic and monetary union, or of the Union as a whole. The Regulation goes even further and in the concept of MIP it distinguishes excessive imbalances which are defined as “severe imbalances, including imbalances that jeopardise or risks jeopardising the proper functioning of the economic and monetary union”.

In academic literature as well as in the MIP, the distinction is made between external and internal macroeconomic imbalances. While the external imbalances cover development of trade balance, current account, exchange rates and other corresponding variables the internal imbalances reflect domestic development. The key aggregates monitored from the perspective of internal imbalances are labour costs, asset prices, government and private sector debt or some indicators describing evolution in banking and financial sector.

The EU faced substantial macroeconomic imbalances mainly before the outbreak of the financial and economic crisis in 2007–2008. The Member States followed different development paths which were reflected in large current account surpluses and deficits across the EU. The imbalances also led to substantial changes in private sector debts, house prices as well as structural changes on the production side of the economy (Ederer and Reschenhofer 2013). By contrast, the post-crisis period brought some adjustments of the imbalances and reduction of differences among the EU Member States. Therefore, the aim of this paper is to demonstrate the process of adjustment of the external macroeconomic imbalances that occurred in the EU after the crisis and to reveal the economic factors that contributed to this correction and the channels through which the adjustment was transmitted.

EVOLUTION OF EXTERNAL MACROECONOMIC IMBALANCES IN THE EU

Macroeconomic imbalances can evolve in many economic areas and variables. For instance, the scoreboard used in the MIP comprises a set of 11 indicators. The indicators can monitor external balances, competitiveness positions and internal imbalances, and encompass variables where both the economic literature and recent experiences suggest associations with economic crises. For detailed information on individual indicators and indicated thresholds differentiated for euro and non-euro area Member States, see e.g. Bobeva (2013). However, here we present only four variables that are often debated with respect to macroeconomic imbalances. In particular, Figure 1 shows development of current account balance, net international investment position, real effective exchange rate and government debt in selected EU Member States.

The reasoning behind this is as follows. We put together countries which have been left relatively unscathed by the crisis like Germany, the Netherlands and Austria with countries which have gone through very turbulent development and faced serious effects of the crisis like Greece, Ireland, Portugal and – to a lesser degree – Spain and Italy. Furthermore, we also present figures of the Czech Republic and Poland as representatives of new EU Member States which still stay outside the euro area, follow an independent monetary policy with national currency and flexible exchange rate arrangement.

Our discussion starts with the emergence of imbalances on current accounts in the pre-crisis period 1999–2007. The most striking fact is the strong increase in the current account balance in Germany, the Netherlands and Austria and a parallel decline in Greece, Ireland, Spain and Portugal. The remaining countries managed to maintain current account balance at almost constant levels. While the surplus peaked at 7.5% of GDP in Germany in 2007 the top value in the Netherlands (9% of GDP) was hit already in 2006 and Austria did not peak until 2008 when the current account surplus was almost 5% of GDP. The surpluses have been slightly reduced since then even though the Netherlands' surplus in 2013 (9.2% of GDP) exceeded the result of 2006. Greece and Spain started out at current account deficits in 1999 which worsened to 17.6% of GDP and 10% of GDP respectively in 2007. In Portugal, the balance remained broadly constant over the pre-crisis period, albeit at levels of heavy deficit (10% of GDP). Development in the Czech Republic and Poland has not been much affected by the crisis as both 'flexible-exchange-rate' countries show more or less stable deficit of the current account over the entire period of examination.

The international investment position (IIP) statistics record the financial assets and liabilities position of a country vis-à-vis the rest of the world. They are an important measure of the net position of an economy domestic sectors against the rest of the world. The net international investment position is calculated as IIP assets minus liabilities. The IIP is, hence, closely related to current account and balance of payments as a whole. It allows for a stock-flow analysis of external positions. The graph in Figure 1 clearly shows that countries which have experienced a persistent current account surplus usually have a positive and gradually increasing net IIP and are consequently considered as net creditors. On the other hand, the deficit countries exhibit a negative and also deteriorating net IIP and they are considered as net debtors. The effect of the financial crisis is evident in case of two countries only, that is Ireland and the Netherlands. While the position of Ireland worsened dramatically after the crisis and the net IIP of Ireland dropped to –112% of GDP in 2011 and 2012, the Netherlands' status of net creditor strengthened after 2007. The last interesting point of the IIP development is how Ireland transformed from an apparent net creditor to a heavily indebted economy.

The third graph in Figure 1 demonstrates development of the real effective exchange rate of the selected EU Member States. We use the real effective exchange rate based on unit labour costs. As the graph clearly shows, most of the euro zone countries went through a process of real appreciation of around 10 % during the period 1999–2013. Among the old members of the euro area, the most significant loss in competitiveness was experienced in Ireland, Portugal and Greece during the pre-crisis period. Not surprisingly, these are the countries where

consumption and construction bubbles emerged at the same time. Germany and Austria have constantly had real effective exchange rate lower than unity and improved their competitiveness markedly. The path of real depreciation was followed also by other countries in the post-crisis period. Namely Spain, Greece, Portugal and Ireland underwent an economic adjustment associated with reduction of labour costs and resulting, among others, in real depreciation. The Czech Republic as well as Poland exhibit a smooth development path of real appreciation proportionate to many other countries like Italy, the Netherlands, Austria or Spain (until 2011).

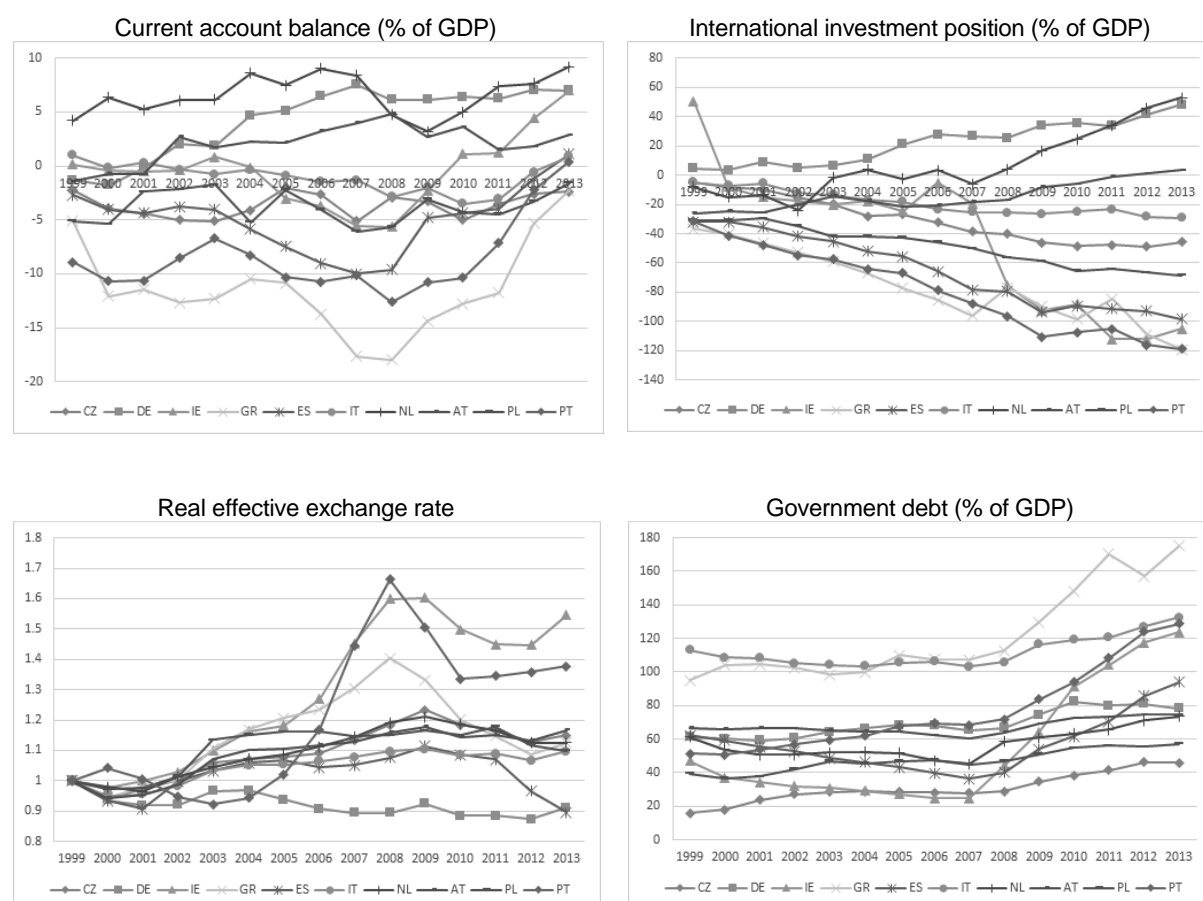


Fig. 1. Development of macroeconomic indicators in selected EU Member States
Source: Eurostat (AMECO and Economy and Finance databases).

The last graph depicts development of the government debt measured as a percentage of GDP. This indicator is widely used in international comparisons and is included in a group of the Maastricht convergence criteria and MIP Scoreboard indicators. In Greece and Italy, public debt levels were already well above the debt ceiling specified as 60% of GDP even before the onset of the crisis. The crisis then resulted in a rise in public debt levels in all analysed countries; however, this rise was most significant in relative terms in a few countries with low levels of debt like Ireland and Spain. Both Spain and Ireland are examples of how strongly ultimately unsustainable developments in specific areas of the economy, such as the housing market or the banking sector, can impact upon public finances and result in financing problems for a government (Essl and Stiglbauer 2011). However, the crisis created a pressure on public finances in all countries and imbalances in this area of economy widened after the crisis.

FACTORS OF ADJUSTMENT OF EXTERNAL IMBALANCES

When the financial crisis hit the European economy and fully demonstrated its force, the existence of large imbalances proved to be devastating for many EU member states. As demonstrated in the previous section, the financial crisis induced some rebalancing of the disequilibria. However, this macroeconomic adjustment was often too distressing and painful, principally for the countries sunk into large external deficits. In this part of the paper, we relate external imbalances to selected macroeconomic variables that can stand behind the evolution of the imbalances. In order to emphasize the effect of the financial crisis we distinctly present relations in the pre-crisis and post-crisis period. We use simple regressions depicted in scatter plots for all 27 countries that were members of the EU at the end of the observation period.

TRADE BALANCE AND DEMAND

Since the current account consists of a variety of transactions, some of which are not closely related to demand, we shall rather estimate and present the relationship between trade balance and domestic demand. In addition, the trade balance is tied with competitiveness more firmly than the whole current account. We particularly examine how the accumulated change in domestic demand as a percentage of GDP (axis y) can be attributed to the accumulated change in trade balance as a percentage of GDP (axis x). Totally different relationship patterns are revealed in Figure 2 if we compare the two subperiods. While the pre-crisis graph unequivocally indicates that the countries with the largest increase in domestic demand generally run huge trade balance deficits and vice versa, the post-crisis picture shows insignificant linkage between the trade balance and demand.

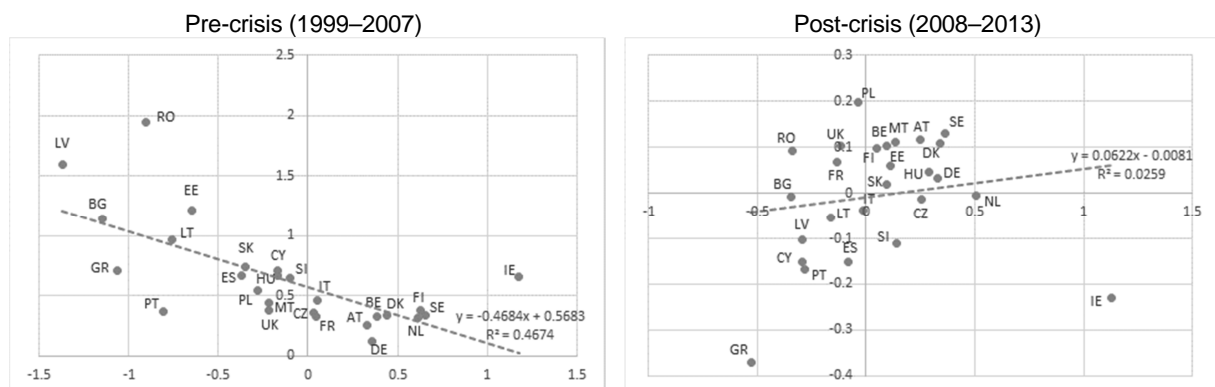


Fig. 2. Trade balance and total demand in the EU
Source: author's calculations based on data from AMECO database.

In the post-crisis period, we can observe considerably lower and even negative changes in domestic demand. Likewise, the dispersion of the trade balances across the EU decreased after the crisis. In this context, corrections in domestic demand were accompanied by corrections in external imbalances particularly in 2008–2010 (Buti 2011). This rebalancing process was also associated with a massive rise in unemployment which may indicate insufficient price/wage adjustment. The financial crisis partially eliminated the trend of increasing differences

in international competitiveness and interrupted flows of cheap capital from surplus to deficit countries where it financed excessive spending. Hence, the two channels through which domestic demand and trade balance are usually connected lost strength and the mutual relationship weakened.

CURRENT ACCOUNT AND CREDIT TO PRIVATE SECTOR

Since we assume that the uncontrolled demand expansion was based on credit inflows to deficit countries, obviously, we should relate current account imbalances to the volume of credits disbursed to the private sector. Scatter graphs in Figure 3 depict the relation between average current account balance as a percentage of GDP (axis x) and change in volume of credits to private sector as a percentage of GDP (axis y). It is well known that companies in the EU have had a tendency to fund themselves much more from banks than from markets, suggesting substantial 'bank dependency'. According to data from the European Central Bank, the non-financial corporations residing in the euro area had around 75% of consolidated debt in their balance sheets in form of bank credits before the crisis (De Rougemont and Winkler 2014).

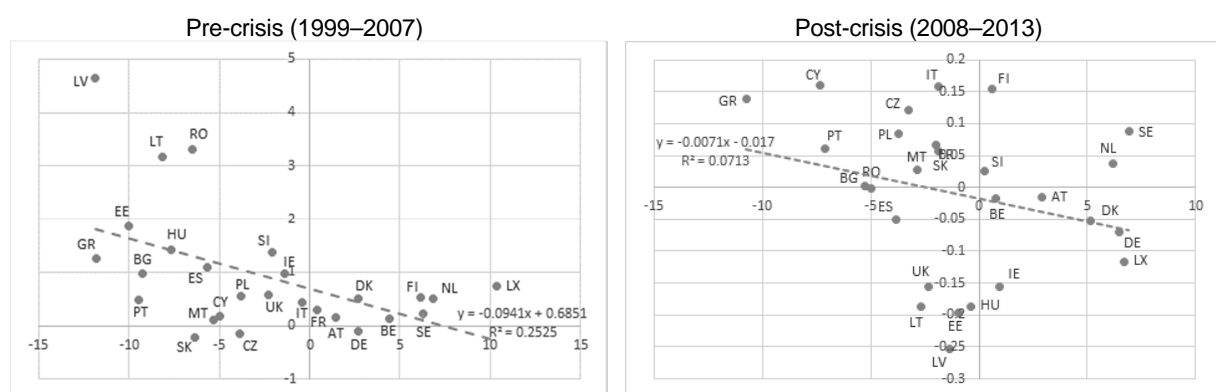


Fig. 3. Current account and credit to private sector in the EU
Source: author's calculations based on data from AMECO database.

The graph from the pre-crisis period clearly shows positive relationship between credit expansion and current account deficit. There are several factors that have encouraged cross-border credit flows in the EU. The increased level of financial integration within the EU and the euro area in particular have definitely stimulated European banks to lend to other EU member states. The next important factor is the fast convergence in nominal interest rates and their decrease to historical lows across the EU. A simple regression shows that the countries which gained most of the profit from reduction in funding costs also accumulated the largest current account imbalances.

In reaction to the new market conditions after the crisis, banks substantially tightened credit standards and non-financial companies were able to obtain less resources from the banking sector and other financial intermediaries. This is apparent in the post-crisis graph as many countries report negative growth rates in credit volume during the period 2008–2013. Therefore, it is not surprising that the pre-crisis relation between the credit volumes and current account imbalances faded away during the post-crisis period.

CURRENT ACCOUNT AND LONG-TERM INTEREST RATES

Financial balance of the public sector is an element that can be hardly isolated from the issue of imbalances in the EU as we already documented in the discussion on the savings-investment imbalance. For that reason we examine the relation between the current account balance and yields on 10-year government bonds. We consider sovereign bond returns as a good common proxy for financial balance of the public sector and sustainability of public finances. In Figure 4 we report usual scatter plots with average current account balance as a percentage of GDP (axis x) and long-term nominal interest rates represented by average yields on 10-year government bonds in % p.a (axis y). Until the financial crisis sovereign bonds of all EU and particularly euro area member countries were considered a safe investment and the spreads between them were marginal and insignificant. The positive relation between bond yields and current account deficit in the pre-crisis period is caused by four non-euro countries (Estonia, Hungary, Poland, Romania). Without those 'outlier' countries, there was just a moderate relation between the examined variables. In fact, average bond yields of all old members of the euro area are situated around the level of 4.5%. On the other hand, the average current account balance of those countries varies between -12% for Greece and $+7\%$ for Netherlands (or even $+10\%$ for Luxembourg).

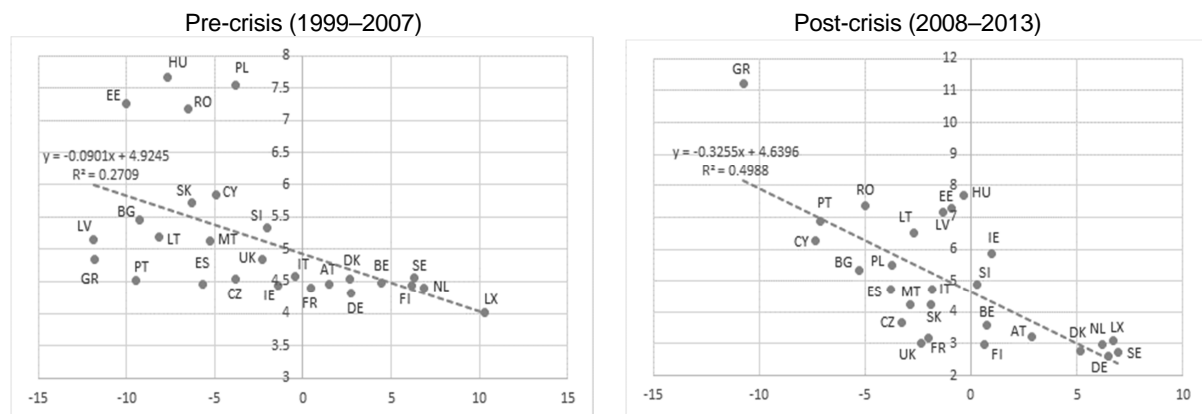


Fig. 4. Current account and long-term interest rates in the EU
Source: author's calculations based on data from AMECO database.

Once the crisis hit aggregate demand and structural differences among the EU and euro area member states came to the limelight, long-term interest rates on government bonds started to reflect financial balance of the public sector more accurately. The current account became the proxy for financial markets to evaluate a country's ability to repay its debts (Canale and Marani 2014). The direction of capital flows reversed as compared with the pre-crisis period. Deficit countries experienced capital outflows and increases in government bond yields. Hence, the post-crisis graph in Figure 6 reports very different situation from the pre-crisis times. The range of current account balances now varies from -11% to $+7\%$ and the long-term interest rates are between 2.6% and 11%. Therefore, we can sum up that there is a solid and definite relationship between current account balances and ability of the public sector to finance additional deficit and debt.

CURRENT ACCOUNT AND REAL EFFECTIVE EXCHANGE RATES

As it is illustrated in Figure 1 on development of real effective exchange rates some EU Member States saw their price and cost competitiveness improved markedly, while others substantially lost competitiveness in international terms. The competitiveness in international markets should be firmly related to international trade and export market shares. Therefore, we investigate what is the relation between current account balance and real effective exchange rate. In Figure 5 we present the scatter plots with average current account balance as a percentage of GDP (axis x) and a cumulative change of the real effective exchange rate in the respective period in % (axis y). A positive change means real appreciation (worsening of competitiveness) and negative change denotes real depreciation (improvement of competitiveness).

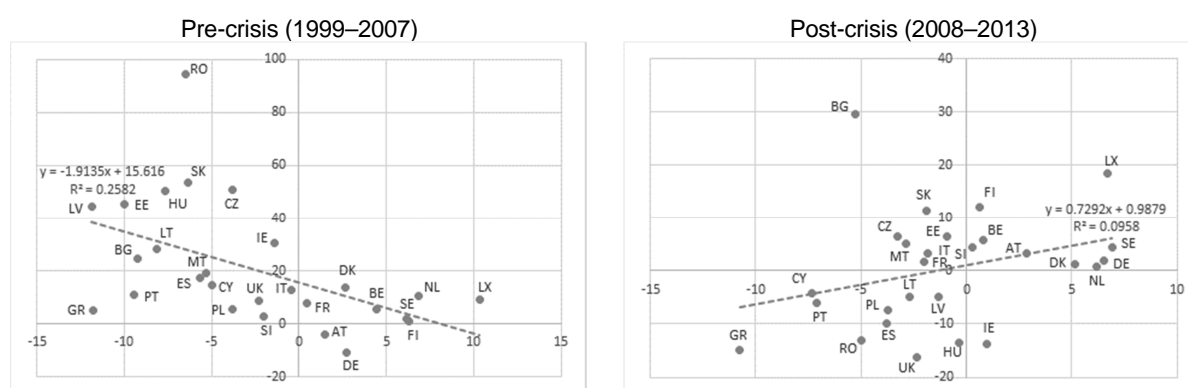


Fig. 5. Current account and real effective exchange rates in the EU
Source: author's calculations based on data from AMECO database.

The graph from the pre-crisis period provides evidence of negative relationship between real appreciation and current account balance. The higher is the rate of real appreciation, the higher is the current account deficit. Given that almost all countries of the South and the new EU Member States had current account deficits, it seems obvious that their loss of competitiveness must reside at the core of their problems. However, a closer look at the data reveals that this is not necessarily the case (Gros 2012). Although a loss of competitiveness should lead to lower exports or lower export market shares, many EU Member States with current account deficit in 1999–2007 including Greece, Portugal, Bulgaria, Latvia or the Czech Republic, increased their export shares during this period. Hence, the deficits of these supposedly 'uncompetitive' countries must come from excess on the import side (Southern European countries) or outflow of incomes in form of dividends and interests to other countries (the Czech Republic and other new EU Member States).

In the post-crisis period, we can observe that the relation between current account balance and real effective exchange rate changed considerably. Not only is the relation much weaker, but also the slope of the regression line converted into positive relation between real appreciation and current account balance. While the current account balances almost imitate the values from the pre-crisis period, the origin of the changes lies in a different development of the real effective exchange rates. Many deficit countries experienced real depreciation in the post-crisis period caused by reductions in labour costs and lowering of prices including asset prices.

CONCLUSIONS

Many European countries and the EU as a whole have been in the grip of three interrelated crises: a banking crisis, a sovereign debt crisis and an economic crisis associated with macroeconomic imbalances. While enormous political effort and interest in combination with huge financial support were devoted to resolving banking and sovereign debt crises, not much attention was paid to macroeconomic imbalances until the beginning of 2010 s.

Major imbalances have evolved primarily in the euro area. The countries representing the euro area periphery (Greece, Spain, Portugal and Ireland) have run persistent current account deficits with mostly high growth, investment and house price bubbles, while the northern core of the euro area (particularly Germany and the Netherlands) have consistently maintained current account surpluses with declining house prices and low investment. The current account deficit and surpluses resulted in corresponding development of net international investment position. Whereas surplus countries steadily improved their position, the deficit countries swiftly accumulated a net foreign liability position over the pre-crisis period. Substantial divergence in the EU can be also seen in the development of real effective exchange rates. A substantial dispersion in exchange rates changes from e.g. Germany (−11%) to Ireland (+45%) during the pre-crisis period completes the mosaic of imbalances within the EU.

It is evident that development of macroeconomic imbalances came to reversion in 2008–2009. This is particularly the case of external imbalances measured by current account balance and/or trade balance. Therefore, we aimed in this paper to reveal what factors can lie behind this adjustment. We related trade balance to domestic demand and current account balance to credit to private sector, yields on long-term government bonds and real effective exchange rates. According to regression estimations and comparison of results obtained for the pre-crisis and post-crisis periods we can conclude that before the crisis external imbalances were tightly linked with changes in demand, volume of bank credits disbursed to private sector and real appreciation/depreciation. By contrast, we found only negligible relationship with government bonds yields. The financial crisis changed the picture completely. Whereas the relationship with demand, credit and real effective exchange rates almost disappeared, which confirms that contraction in these aggregates is a part of rebalancing process, differences in the current account balance are now more reflected in bond yields.

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