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Framework for Monitoring Macroeconomic Imbalances in the European Union – Significance for Croatia

Mislav Brkić and Ana Šabić

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Abstract

A package of legislation aiming at enhancing the resilience of the EU economy to future financial crises entered into force in the European Union in December 2011. One of the most important elements of the new economic governance framework is the establishment of the Macroeconomic Imbalance Procedure (MIP). The MIP is created to complement the system of surveillance of Member States' economies because enhanced surveillance in the existing framework existed only in the area of fiscal indicators, in accordance with the provisions of the Stability and Growth Pact. Since there was no surveillance mechanism for other variables, Member States that recorded other types of macroeconomic imbalances were not obliged to conduct any corrective measures with regard to the identified imbalances. The establishment of the MIP should thus improve the resilience of the EU economy since its consistent implementation would decrease the probability of unwanted events of the kind that occurred after the last financial crisis. A total of 11 indicators are monitored within the MIP and they assist in identifying macroeconomic imbalances. In addition to indicators of external vulnerabilities and internal imbalances, the MIP encompasses also indicators that can imply the weakening of the competitiveness of an economy. When an excess over the threshold for a certain indicator is identified for an individual Member State, the European Commission initiates an in-depth review of its economy in order to identify possible macroeconomic imbalances, and if there are some, assesses whether they are excessive or not. Starting with the MIP for 2014 Croatia is also covered by this monitoring of macroeconomic imbalances in the EU, so this paper serves to further assess Croatia's performance with regard to individual indicators, and it discusses the possible consequences of participation in such a procedure for the Croatian economy.

JEL: E610, F550

Keywords: Macroeconomic Imbalance Procedure, macroeconomic imbalances, economic governance reform, Croatia, European Union

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Introduction

The initiative for establishing the Macroeconomic Imbalance Procedure started in September 2010 when the European Commission presented the Six-Pack legislative package aiming at strengthening coordination and discipline in the European Union. Alongside the introduction of this new mechanism, the mentioned package aimed at improving the existing Stability and Growth Pact by strengthening its preventive and corrective role in the area of public finances. This package of regulations entered into force in December 2011.

The Macroeconomic Imbalance Procedure was designed to complement the surveillance system in the EU by monitoring the performance of Member States according to a number of macroeconomic indicators because in the existing framework, according to the SGP rules, enhanced surveillance existed only in the area of fiscal indicators. Since there was no surveillance mechanism for other macroeconomic variables, Member States with other forms of macroeconomic imbalances were not obliged to explain them or to take any corrective measures. The establishment of the MIP could thus improve the resilience of the EU economy since its consistent implementation should decrease the probability of recurrence of the kind of undesirable events that came after the last financial crisis. Namely, at the peak of the crisis several Member States were forced abruptly to correct the previously accumulated imbalances, which additionally deepened the recession in their economies. Ireland, Spain, Greece, Portugal and the Baltic countries faced this problem particularly strongly.

A total of 11 indicators are monitored within the MIP and they assist in identifying macroeconomic imbalances. In addition to indicators of external vulnerabilities and internal imbalances, indicators that can imply the weakening of an economy's competitiveness are also encompassed. A threshold is defined for each indicator,

and the performance of Member States is assessed with reference to it. However, if a threshold for a certain indicator is exceeded, it does not automatically mean that a macroeconomic imbalance exists. The European Commission is charged with identifying any potential macroeconomic imbalances in a Member State's economy only after an in-depth review of that economy, and if any are found, whether they are excessive.

Croatia is for the first time included in the MIP for 2014. The 2014 MIP started with the publication of the Alert Mechanism Report in November 2013 (European Commission, 2013a). Since Croatia will henceforth be included in this monitoring of macroeconomic imbalances in the EU, this paper serves further to assess Croatia's performance with regard to MIP indicators, and it discusses the possible conclusions of the MIP for the Croatian economy. Croatia at the moment exceeds thresholds for three out of a total of eleven indicators: international investment position (i.e. the level of net foreign liabilities), trends in the export market share and the unemployment rate; in the second round of the MIP, the threshold for the general government debt indicator will be exceeded. Because of the identified excesses, the European Commission decided to conduct an in-depth review of potential imbalances for Croatia and 16 more Member States, and from the results of that review the Commission concludes that Croatia does have excessive macroeconomic imbalances. The paper thus discusses also the outlook for the recommendations of the European Commission and the Council of the EU for correcting imbalances in Croatia following the publication of the results of in-depth reviews and the possible consequences of the MIP to the Croatian potential accession to the ERM II, i.e. to Croatia's introduction of the euro over the medium term.

The paper is structured as follows. Following the

Introduction is an overview of reforms in the area of economic governance which have been made since the outbreak of the global financial crisis. The third chapter depicts the procedure, the indicators and the results of the MIP implementation so far. The possible effects

of participation in the MIP for Croatia are discussed in the fourth chapter, and the performance of Croatia with regard to certain indicators is assessed in more detail. The main conclusions of the paper are provided at the end.

2 Reform of economic governance in the EU

Establishing a mechanism for monitoring macro-economic imbalances in Member States should be observed in the context of the overall change of the economic governance framework in the EU. Several procedures, methods and strategies have been developed since the introduction of the euro, with the aim of decreasing the asymmetry between the economic and the monetary parts of the EMU organisation. The adoption of the Stability and Growth Pact shortly after the establishment of the EMU, and prior to the introduction of the euro, was the first major step in that direction. The reform of the Pact in 2005 was the only major change of the economic policy coordination framework in the periods from the implementation of the euro to the outbreak of the crisis. The financial and economic crisis that affected the EU at the end of 2008 highlighted the need for a much more ambitious reform of the overall economic governance framework. Thus the EU is today, we might say still, in the midst of that reform which is supposed to ensure a deeper integration of the EU and the EMU.

2.1 European Semester and the Six-Pack

The euro area crisis showed that the economic integration and interdependence created by the common currency demand better governance and a higher level of economic policy coordination. In the last couple of years important steps have been taken in that direction. In addition to strengthening the existing elements of economic policy coordination, some completely new mechanisms have been implemented and new rules and procedures have been established. The European Semester¹ was introduced; this is a cycle of economic, budgetary and structural policy coordination of the EU Member

States, aiming to enhance coordination during the preparatory phase of drawing up national budgets (European Commission, 2010a). It is at the same time the major instrument of the broad Europe 2020 strategy, and it is also the framework for the implementation of a preventive part of the Stability and Growth Pact and the recently established Macroeconomic Imbalance Procedure that this paper deals with.

One of the most important steps in enhancing that coordination through the European Semester is the adoption of a legislative package (the Six-Pack), the aim of which is to achieve greater fiscal discipline in the EU, and also to take measures to prevent and correct harmful macroeconomic imbalances. As regards the Stability and Growth Pact, it might be said that this instrument failed in preventing and fighting the crisis, because its implementation did not contribute to the creation of the fiscal space that would enable Member States to take more ambitious counter-cyclical actions at the moment of the outbreak of a crisis. Hence, with regard to the observed shortcomings of the Pact, the part of the Six-Pack referring to a reasonable fiscal policy actually makes a new reform of the Stability and Growth Pact, both in its preventive arm and in the corrective arm. According to the new regulations, alongside a clearly determined procedure for actions in case of excessive deficits, the procedures and rules for decreasing public debt have been clearly set for the first time. That is, the new rules foresee the possibility of starting the Excessive Deficit Procedure for a Member State if its public debt exceeds the threshold, even if the budget balance is within allowed limits. However, since the public debt of the majority of developed Member States currently exceeds the threshold, it is questionable whether exceeding the public debt criteria alone will be a good enough reason for the initiation of an Excessive Deficit Procedure. Furthermore, the amended Pact foresees, compared with the reform of 2005, a slightly higher level of automatism in the

¹ The first cycle started on the 1st of January 2011.

Excessive Deficit Procedure and shorter implementation deadlines. It might be said that this is the case of quasi automatism – reverse voting rules are introduced instead of the usual voting by qualified majority. This means that the recommendations of the European Commission on prescribing sanctions on a Member State in the case of an excessive deficit are automatically accepted in the Council of the EU, except when a qualified majority of votes is against the proposal. With respect to sanctions, apart from explicit financial sanctions as prescribed by the provisions of the relevant Regulation, suspensions from the use of the Structural Funds and the EU Cohesion Fund are also possible.²

The second important element of the Six-Pack and the overall economic governance reform is the establishment of the Macroeconomic Imbalance Procedure (MIP). With the aim of detecting and correcting potentially harmful macroeconomic imbalances, a mechanism was introduced based on the following four elements: (i) an alert mechanism based on a set of indicators; (ii) preventive surveillance in discussions with a Member State and an in-depth review if thresholds for selected indicators are exceeded; (iii) Excessive Imbalance Procedure; (iv) implementation mechanism for members of the euro area, including sanctions. When assessing the presence of (excessive) macroeconomic imbalances, the trends of relevant indicators are analysed with regard to their contribution to macroeconomic imbalances and the overall vulnerability of a Member State. Circumstances specific for a certain economy are taken into consideration, as well as the level of nominal and real convergence in the euro area and in the entire EU, i.e. account is taken of the heterogeneity of EU economies and the circumstances specific for the catching-up economies. In this respect, there is a certain asymmetry in its design that is reflected in the presence of provisions³ not valid for all Member States of the EU but only for those who have already introduced the euro.

The new economic governance framework also includes the structural policy coordination: the fact that at the same time, within the European Semester, stability and convergence programmes⁴ and national reform

programmes are submitted for assessment contributes to the efficiency of the overall framework. National reform programmes need to contain measures to meet the objectives for improving competitiveness as set in the Euro Plus Pact⁵ and all other structural measures, and especially those that EU recommendations for a certain Member State refer to.

2.2 Treaty on Stability, Coordination and Governance in the EMU and the Two-Pack

Heads of the EU Member States, worried about fiscal policy credibility and sustainability, agreed on major elements of a new fiscal compact to advance the fiscal governance framework. At the meeting of the European Council in March 2012 the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union⁶ was signed, containing important provisions of the fiscal compact. The main determinant of the fiscal compact is the balanced budget rule, which includes the automatic correction mechanism and strengthening of the Excessive Deficit Procedure in the event of a violation of budget deficit criteria. Thus it is complementary to the Stability and Growth Pact, but in reality it goes beyond the Pact provisions. By accepting the Treaty on Stability, Coordination and Governance in the EMU, Member States obligate themselves to obey the fiscal rule that demands achievement of a balanced general government budget or a surplus. That rule is considered met if the medium-term objective does not exceed the structural deficit of 0.5% of GDP. In a case in which a Member State has a relatively low level of public debt and where it is considered sustainable, or to be more precise, if it is significantly below the level of 60% of GDP, it is possible to use the lower boundary for a medium-term target and in that case the structural deficit may reach 1% of GDP. The most important provision that should have a significant effect on the enforceability of the new rules is the obligation to implement this fiscal rule into national legislation, i.e. into national constitutions or other national legislation with the same power as the constitution⁷.

2 During discussions on this element of the corrective arm of the Pact there were proposals to suspend voting in certain formations of the EU Council to a Member State that permanently violates the provisions of the Pact and that fails to act in line with the Council's recommendations to correct deficit or debt.

3 Those are the sanctions in the case of failure to obey the recommendations.

4 Member States that introduced the euro are preparing stability programmes, and Member States outside the euro area are preparing convergence programmes.

5 All euro area Member States and six Member States outside the euro area have signed the Euro Plus Pact. That obliges them to implement reforms for promoting competitiveness and employment and to achieve sustainability of public finance and financial stability.

6 All Member States except for the United Kingdom and the Czech Republic signed it.

7 Germany particularly strongly insisted on raising the fiscal rule to the constitution level in Member States.

In order to achieve better enforceability of fiscal rules, if a Member State that is a signatory of the Treaty has failed to incorporate the required fiscal rule into its constitution, it is possible to submit the case to the Court of Justice of the European Union. This can be done either by other Member States or by the European Commission. If the Member State fails to act in line with the judgement, the case may end up before the Court again, but it may also result in financial sanctions in the amount of 0.1% of GDP⁸. As regards the violation of budget deficit criteria, the provisions of the Treaty related to the corrective arm of the Stability and Growth Pact are actually limited to accentuating the obligation of signatory states that introduced the euro to support the proposals or recommendations adopted by the European Commission. Finally, the novelty introduced by this Treaty supports closer economic policy coordination in the manner that all major economic policy reforms that a certain country plans to implement are discussed *ex ante*, and also that the debt emission plans are presented to the Commission and the Council of the EU⁹. In a nutshell, the Treaty on Stability, Coordination and Governance in the EMU should contribute to strengthening the coordination of economic, particularly fiscal, policies and is therefore an important step towards the economic union.

Finally, at the beginning of 2013 another legislation package from the segment of economic policy coordination was agreed – the Two-Pack. Namely, for euro

area Member States, especially those that are facing difficulties and are accepting foreign financial assistance, additional surveillance mechanisms are introduced. Alongside the obligation to submit budget plans and planned measures for correcting the excessive fiscal deficits of euro area members to the European Commission for appraisal, these regulations foresee enhanced surveillance over euro area members with serious difficulties or over those receiving financial assistance.

The crisis led to great reforms in the economic governance framework in the EU in its various elements, all with the aim of stabilisation in the short term, of maintaining financial stability and, finally, renewing trust in the long-term sustainability of the euro and the EMU. The years to come will show how this reshaping has contributed to the resilience of the euro area and of the EU. In the meantime several critiques of the new economic coordination framework appeared (Deutsche Bank, 2011). There are a few key objections: (i) the endogenous nature, since this is an approach focused on performances in the past, which makes it limited in providing information on economic policies in the future; (ii) measuring results of an economic policy by means of a certain set of indicators could provoke such behaviour of economic policy makers that has a tendency to avoid sanctions; (iii) the time lapse between the analysis of indicators, the recommendations for economic policy and possible sanctions is great, which might have a negative impact on the coordination process.

3 Macroeconomic Imbalance Procedure (MIP)

3.1 Economic rationale for establishing the MIP

The effects of the crisis on peripheral euro area Member States showed that the presence of permanent

and growing macroeconomic imbalances in a few Member States may represent significant systemic risk for financial stability and economic performance of the entire EU. With the aim of preventing the accumulation of imbalances in Member States, EU institutions should not focus exclusively on public finance sustainability indicators as before, but on the overall economic policy in order to ensure conditions for the balanced economic growth of Member States. Even if we presume responsible behaviour of Member States in line with the Stability and Growth Pact, fiscal discipline is not sufficient to prevent all macroeconomic imbalances.

⁸ That is additional financial penalty, in relation to those prescribed by the Stability and Growth Pact (0.2% of GDP – interest bearing deposit, if no measures in case of departure from medium-term objectives have been taken).

⁹ Those provisions of the Treaty on Stability, Coordination and Governance in the EMU represent a legal foundation for *ex ante* economic policy coordination and as a result a firmer economic integration. The concrete methods of implementation are still to be discussed and adopted on the level of the Regulation of the European Parliament and of the Council.

Despite a relatively disciplined fiscal policy, imprudent management of other aspects of economic policy may lead to major internal and external vulnerabilities or to loss of competitiveness. This may be seen in the example of Spain, which in the period before the outbreak of the crisis, despite stable public finances, was recording a continuous widening of the current account deficit as a result of domestic demand expansion related to developments in the real estate market. The spillover of the financial crisis to the EU led to a sudden weakening of overall demand, resulting in the correction of existing imbalances, which had a strong negative effect on the financial sector, the real economy and public finances (European Commission, 2010b). Particularly with regard to membership in the monetary union, account needs to be taken of the fact that such developments may also lead to the spillover of unfavourable effects to other Member States.

The global financial and economic crisis had a strong effect on EU Member State economies. Even though all Member States except for Poland recorded a decline in real GDP simultaneously, the scope and the duration of the economic contraction varied greatly among countries. If we draw a line between cumulative fall in real GDP during the recession and the level of macroeconomic imbalances in the period preceding the crisis, we might conclude that the negative effects of the global crisis on Member State economies were partly conditioned by economic fundamentals. Table 1 shows performances in 2008 according to several

macroeconomic imbalance indicators for five Member States with the greatest total decrease in real GDP and five Member States with the slightest decrease in GDP during the crisis. Based on the presented data, the conclusion can be drawn that the crisis hit those economies that had earlier recorded significant macroeconomic imbalances more strongly. The exception is Poland, which exceeded thresholds for several indicators in 2008 and yet still had the most favourable GDP performance during the global financial crisis (Table 1). However, it needs to be pointed out that the mitigating circumstance in the case of Poland was the fact that the excessive thresholds were mild (except for the International Investment Imbalance indicator) and no excessive accumulation of private sector debt was recorded, as it was in some other countries.

Thus, recent experience indicates a close link between the level of accumulated macroeconomic imbalances in Member State economies and their vulnerability to negative aggregate shocks. Under such conditions the Macroeconomic Imbalance Procedure has been created as a coordination framework that should steer Member States towards an active approach to preventing potential macroeconomic imbalances, which would in the end result in their higher resilience and the resilience of the overall EU economy to similar shocks in the future.

High current account deficits of peripheral euro area Member States in the period preceding the crisis (Figure 1) and the consequential dependence of those countries on foreign capital made them exceptionally

Table 1 Macroeconomic imbalances in 2008 and cumulative fall in GDP during recession

	Current account balance, 3 year average, as % of GDP	International investment position, as % of GDP	Nominal unit labour cost, 3 year change, %	Real effective exchange rate, 3 year change, %	Private sector credit flow, as % of GDP ^a	Total financial sector liabilities, %, year-on-year ^a	Cumulative fall in GDP during recession ^b
Greece	-13.6	-76.8	6.6	2.4	16.8	13.6	19.9
Latvia	-19.4	-79	78.1	20.8	29.6	30.8	18.8
Lithuania	-12.7	-51.6	29.6	9	17.5	23.5	14.9
Estonia	-13.5	-76.7	46.7	12.6	24.4	17.0	14.1
Croatia	-7.5	-74.6	12.6	5.3	18.1	14.4	10.8
Austria	3.7	-16.9	6.1	-0.1	7.5	10.4	3.8
Netherlands	6.8	4.2	5.4	-0.1	10.0	9.3	3.7
France	-1.1	-12.9	6.8	1.5	10.4	10.2	3.2
Belgium	0.8	39.7	8.8	3.4	13.2	5.4	2.8
Poland	-5.5	-56.3	9.2	14.4	10.9	16.7	1.6 ^c

^a Average value for the period from 2006 to 2008.

^b When calculating cumulative output loss, the duration of recession in Member State economies was taken into consideration: only annual rates of fall for 2009 are shown for some countries, and already in 2010 they recorded growth, while, for example, Greece shows total fall in real GDP from 2009-2012.

^c No recession was recorded in Poland, so the table shows the GDP growth rate in 2009.

Note: Performances exceeding thresholds determined in the Macroeconomic Imbalance Procedure are shaded.

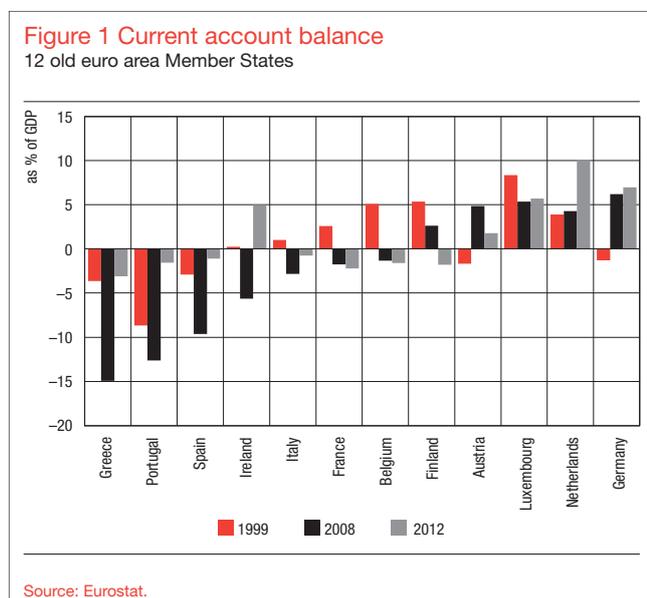
Sources: Eurostat and authors' calculation.

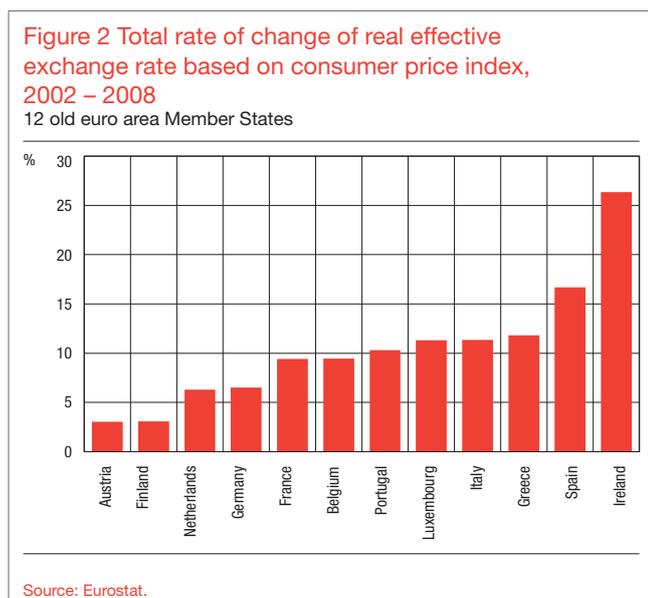
vulnerable to the potential sudden stop in capital inflows. The differences in performances of the current account balance between core and peripheral euro area Member States increased from the mid-1990s, and in the period right before the outbreak of the global financial crisis they recorded a peak. At the same time, the European Union and the euro area on a consolidated level recorded mostly balanced current account positions. The deterioration of the current account balance is considered a benign phenomenon by some authors if it occurs during the process of reaching the average income per capita in the EU (the catching-up process). During that process Member States with lower relative income level and lower productivity attract foreign capital, followed by an increase in relative inflation, appreciation of the real exchange rate and a weakening of price competitiveness. As a result of the above mentioned the deficit in the current account balance increases, together with the surplus in the financial and capital account. Because the foreign capital inflow and the consequential investment cycle enable a growth in productivity and a higher income level, in the long term those economies manage to pay off the previously accumulated foreign liabilities (Blanchard and Giavazzi, 2002).

However, some authors find that the accumulation of external imbalances in peripheral euro area countries in the period from the introduction of the euro until the outbreak of the global financial crisis cannot be completely explained by the real convergence process. Jaumotte and Sodsriwiboon (2010) use regression analysis to investigate the causes of high current account deficits of euro area Member States, particularly focusing on performances of Member States from the south of

the euro area. From their analysis the authors conclude that the external imbalances that these countries accumulated by 2008 cannot be completely justified by fundamentals such as low relative income level or the consequential economic growth characteristic of catching-up. Jaumotte and Sodsriwiboon find that the effects of the accession to the euro area can explain about a half of the total deterioration of current account balances of these countries in the observed period. That is, financial liberalisation, monetary integration, but also the improvement of macroeconomic performances due to the efforts to satisfy the Maastricht criteria and the provisions of the Stability and Growth Pact, led to a significant decrease in foreign funding cost, which discouraged domestic savings and initiated investments in those economies. Holinski et al. (2012) conclude that the deterioration in the current account balance in peripheral Member States (south of the euro area) is primarily the consequence of a considerable decrease in household savings and a slightly less pronounced growth in private gross investment. At the same time they relate the fall in household savings to the sudden decrease in nominal and real interest rates caused by financial liberalisation and the accession to the euro area and the consequential eliminations of currency risk and inflation premiums. By analysing the composition of the southern Member States' current account balance, the authors show that high deficits in these countries not only reflected foreign trade deficits but also significant deficits in the income account due to the accumulation of foreign liabilities and the weakening net inflow to the transfers account following the enlargement of the EU in 2004. The authors also conclude that the convergence theory partly explains the growing external imbalances, and provide as a possible additional explanation the excessive assumption of risks by European banks and the fact that financial markets failed to recognize country risk, since they thought that the elimination of currency risk and price instability risk due to the introduction of the euro eliminated country risk as well. Additionally, they point out that the common monetary policy has counter-cyclical effect on real interest rates in the short term. Gros (2012) goes one step further by highlighting the unbalanced distribution of savings between the southern and the northern Member States as one of the key causes of the euro area crisis.

Argyrou and Chortareas (2008) find a positive relationship between the appreciation of real effective exchange rate and the increase in the current account deficits of the euro area Member States. The authors





conclude that those Member States that recorded depreciation of the real effective exchange rate usually experienced improvement in the current account balance, while the Member States in which the real effective exchange rate appreciated mostly faced a widening of the current account deficit. Figure 2 shows the cumulative change of the real effective exchange rate (deflated by the consumer price index) in old euro area Member States from the introduction of the euro until the outbreak of the financial crisis in 2008. It is noticeable that the level of real appreciation in the observed period varied significantly among Member States, which contributed to the creation of a gap in relative competitiveness among EMU Member States. Also, development in competitiveness is an important question because of the direct relationship with public debt dynamics. European peripheral countries recording major losses in relative price and cost competitiveness need to take measures to renew their competitive positions, and in the environment of a fixed foreign exchange rate that is only possible through internal devaluation. Therefore, the required strengthening of competitiveness may be achieved only by means of deflationary macroeconomic policies, which deepen recession in the short term and thus lead to a growth in budget deficit. Due to such development a country may lose investors' trust in the financial

markets, which may threaten its liquidity, and even its solvency (De Grauwe, 2011).

Generally, when monitoring such trends and when assessing their harmfulness it is necessary to estimate to what extent they are the result of wrongly managed policies and market failures, and to what extent they can be related to macroeconomic imbalances at Member State level. With respect to this, it needs to be pointed out that in recent years the European Central Bank has emphasised the risks caused by divergence in the level of competitiveness. Trichet (2011)¹⁰ emphasised that competitiveness in the EMU should be assessed at a national level, in order to take into account the exceptionally large interdependence between the economies that was created by the common currency. Trichet is of the opinion that the issue of competitiveness is relevant not only for raising the standard of living, but also for strengthening the cohesion of the economic union. For that reason it is crucial, by implementing sound economic and fiscal policies, to avoid too large and too persistent divergences.

This also raises the question of what to do after loss of competitiveness is identified, i.e. what economic policy measures to take in order to correct negative developments. For not only do the importance and necessity of monitoring macroeconomic imbalances need to be recognised, but any response from economic policy to loss of competitiveness requires caution for it to be considered adequate. Gros and Alcidi (2010) are of opinion that the best economic policy approach should not be focused on indicators of competitiveness in the narrow sense, but on preventing basic causes of imbalances, mainly differences in the domestic demand levels, which in the majority of cases is triggered by the growth in the real estate market financed by loans and/or by consumption growth. This is the reason why variables such as the house price index and private sector credit flow were included in the basic list of indicators for macroeconomic imbalance monitoring. Gros and Alcidi think that there are fears that the need to take action with regard to competitiveness could lead to an overly active approach by EU institutions and Member States in determining salaries in the private sector. That can have a positive effect in the current situation of crisis in peripheral euro area countries such as Greece and Spain, but it will not prevent the future recurrence of differences in competitiveness if major differences in domestic demand levels appear again. As a result Member States with low competitiveness need to accept a permanent decrease in domestic demand down to a level that is sustainable in

¹⁰ In 2005 the European Central Bank issued a comprehensive report on competitiveness and export developments in the euro area; it was the result of activities of a working group of the Monetary Policy Committee of the European System of Central Banks (ECB, 2005). The report deals with movements of prices and costs in certain Member States, and main messages refer to existing differences in levels of competitiveness that warrant interpretation, assessment and, finally adequate economic policy measures. Since that report the ECB has been regularly updating the competitiveness data for Member States and presents them to ministers of finance of euro area Member States that make the Eurogroup.

conditions without new major capital inflows.

3.2 Selection of indicators

The establishment of the Macroeconomic Imbalance Procedure was preceded by discussions among EU institutions on what body should be responsible for surveillance of macroeconomic imbalances in Member States and which indicators would be considered relevant when establishing those imbalances¹¹. Namely, macroeconomic imbalances may occur in various segments of the economy, they may be both internal and external, symmetrical and asymmetrical, acceptable or harmful¹² for a particular Member State. Thus it was necessary to include as many indicators capable of detecting a wide range of various imbalances as possible. At the moment eleven indicators are used in the Macroeconomic Imbalance Procedure, which in combination with indicative thresholds serve to warn about possible imbalances in Member States' economies. Values of selected indicators are not observed or interpreted mechanically, and the total assessment depends on the severity of violation of thresholds, the number of indicators whose values exceed the agreed thresholds and on their combinations. Additionally, the specificities of the macroeconomic environment and the achieved level of real convergence must be taken into consideration in in-depth reviews of national economies and in decisions on the existence of macroeconomic imbalances. Thus exceeding a certain threshold does not necessarily imply the presence of macroeconomic imbalances or that they are excessive. The appendix includes further elaboration of the methodology and economic argumentation for each of the selected major indicators¹³.

The selection of indicators is made in such a way that alongside the indicators of external vulnerability, such as current account balance, international

investment position and trends in the export market share, indicators referring to the causes of internal imbalances growth are included as well. Such indicators are, for example, private sector credit flow, real effective exchange rate, unit labour cost, total financial sector liabilities and trends in house prices. Except for those, indicators of private and public sector debt are included, as well as the unemployment rate. The selected set of indicators is neither exhaustive nor complete, and has to be adjusted periodically. Alongside eleven main indicators, additional 28 indicators are defined and they complement the surveillance of imbalances in Member States. Among other things, indicators such as sum of the current and capital account balance, general government budget balance, investment share in the GDP, net external debt, total level of liabilities by foreign direct investment and the financial sector leverage ratio are included. Indicative thresholds are not set for auxiliary indicators.

It is important for selected indicators to have the following characteristics: they cover key dimensions of macroeconomic imbalances and loss of competitiveness; they provide the possibility of early warning; the indicators are relatively simple and have a strong communication role and it is possible to achieve for them a high level of statistical quality; and, finally data can be made available in good time and are comparable among Member States.

3.3 Procedure timeline

The MIP needs to be observed within the European Semester. The European Semester cycle starts in November, when the European Commission publishes the Annual Growth Survey, which defines the main challenges for the economy of the EU and its members in the upcoming year. On the basis of that report, and following the discussions in the Council and the European Parliament, the European Council provides advice and recommendations to Member States on economic policy governance. At the same time the European Commission publishes the Alert Mechanism Report – an overview of performances of Member States according to selected macroeconomic imbalance indicators, the so called scoreboard, and its basic economic interpretation. This report is the first step in the annual monitoring of macroeconomic imbalances, i.e. the first phase of the MIP.

Then, the European Commission draws up

11 In June 2010 both the European Commission and the ECB announced their views on the possible solutions for improvement of economic governance in the EU, including the framework for monitoring macroeconomic imbalances (EC, 2010a, ECB, 2010). The main differences lie in the fact that the ECB proposed the establishment of an independent fiscal agency and the EC thought that surveillance over fiscal developments in Member States under its authority had to be maintained. With regard to the scope of developments to be monitored in Member States, the EC proposed a broader approach, while the ECB considered only fiscal developments and movements of relative competitiveness.

12 Related to the issue of "harmful" macroeconomic imbalances, it is difficult to provide a precise definition of "harmful". There will be lot of debate later in the negotiations on indicators for monitoring risk of imbalances on whether, for example, a current account surplus is a harmful imbalance.

13 For more details on the methodology and the reasons for including certain indicators see European Commission (2012b).

in-depth reviews for Member States suspected of having the risk of macroeconomic imbalances, using a wide range of indicators and analytical tools and taking into consideration the recommendations of the EU Council, Stability and Convergence Programmes¹⁴ and warnings and recommendations of the European System Risk Board (ESRB). After that, the Commission assesses the programmes and submits its comments on programmes and recommendations for each EU Member State and for the EU as a whole to the ECOFIN Council and to the European Council for discussion. After adoption at the end of June or at the beginning of July those recommendations are forwarded to Member States so that they could complete their budgetary planning for the upcoming year.¹⁵

The Macroeconomic Imbalance Procedure has, just like the Stability and Growth Pact, its preventive and corrective arm. The described phases of the European Semester constitute the preventive arm of the MIP. Its corrective arm starts after the presentation of in-depth review findings and recommendations of the European Commission and Council, if they indicate serious imbalances. In that case the Excessive Imbalance Procedure (EIP) starts. If a Member State presents a satisfactory plan for correcting imbalances, the procedure may be suspended. For a euro area Member States the possibility of financial sanctions is foreseen in the case of a failure to obey the recommendations of the European Commission and the EU Council. Namely, in a situation in which a country fails to take sufficient measures, the EU Council may make a decision according to which a Member State needs to allocate funds to the interest bearing deposit, and if the Member State fails to start carrying out the necessary measures in the following period, that deposit may be transformed into a financial penalty in the amount of up to 0.1% of the Member State's GDP. In order for the Excessive Imbalance Procedure not to lose enforceability, primarily due to delays

in making decisions on sanctions, a reverse majority voting concept was introduced.

3.4 Implementation of the MIP in the past

Considering the obvious shortcomings of strict surveillance frameworks such as Maastricht nominal convergence criteria, one of the positive characteristics of the MIP is its flexibility with regard to the list of indicators, which is neither exhaustive nor final, but can be changed and amended when and if required. The possibility of adjusting the list of indicators has already been used in practice. That is, the first procedure was based on ten macroeconomic indicators, and after that, for the purpose of the second and the third MIP another indicator was added: the growth in total financial sector liabilities. There are, however, certain challenges related to the implementation of the macroeconomic imbalance procedure. This new framework demands a high level of specific knowledge and expertise as regards the economy of an individual Member State. Additionally, especially with early actions, there is a need for qualitative judgement, but also problems with collecting statistical data for certain indicators should not be ignored.

The Macroeconomic Imbalance Procedure was implemented for the first time in 2012, and it was based on the macroeconomic imbalance analysis for 2010. During the first MIP the European Commission decided to conduct an In-depth Review (IDR) of twelve Member States with macroeconomic imbalance risk¹⁶, and excessive imbalances were not identified for any of them. Such a conclusion was somewhat surprising since at that time several Member States exceeded thresholds for as many as a half of the total of, at that time, ten macroeconomic indicators. A possible justification for such a conclusion after the first MIP may be the fact that at that moment this was a completely new mechanism, and, in a way, Member States and EU institutions were being given time to get acquainted with new procedures. Also, the first recommendations provided at the end of the European Semester, based on the macroeconomic imbalance assessment, may serve as a measure for the assessment of performance in the following procedure cycle.

In the 2013 MIP, excessive macroeconomic imbalances were identified in two Member States, Slovenia

14 Member States present their budgetary plans in stability programmes (euro area members) and convergence programmes (members outside the euro area), taking into consideration the advice and recommendations of the previous year's European Semester, as well as the priorities from the Annual Growth Survey. Those documents, alongside the national reform programmes dealing with structural policies, are submitted to the European Commission for assessment.

15 The ending of the European Semester in June should be the beginning of the "national semester" in the second half of the year when Member States are supposed to discuss the EU recommendations and implement them into their national budgets for the upcoming year, as well as into the preparation of future national programmes to be presented to the EU in the spring of the following year. An additional value of the European Semester is that the parallel presentation of convergence and stability programmes and national reform programmes enables the assessment of growth and fiscal strategies at the same time, including possible risks and imbalances, which was not the case before.

16 Member States that carry out the economy adjustment programme as a part of the IMF and EU financial assistance arrangement are not included in the macroeconomic imbalance procedure.

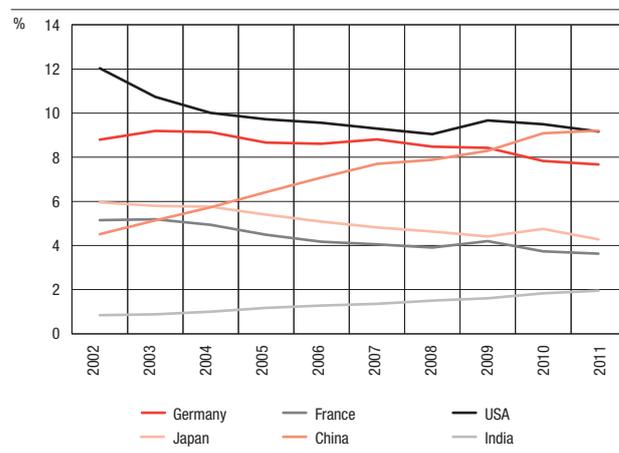
and Spain (European Commission, 2012a and 2013b). The fact that macroeconomic imbalances in Slovenia and Spain additionally increased in relation to the previous year was probably decisive for identifying these countries as countries with excessive imbalances. Despite that, the corrective arm of the excessive imbalance procedure was not initiated at that time. Italy and Hungary, even though they also exceeded thresholds for a number of indicators, were not identified as countries with excessive imbalances because they recorded a slight decrease in imbalances identified in the previous MIP. The 2014 MIP started in November 2013, and Croatia was included for the first time as a new Member State. Due to the exceeded thresholds for a great number of indicators, the European Commission decided to conduct in-depth reviews for seventeen countries¹⁷, among them Croatia, and the reports of the reviews conducted were published in March 2014 (European Commission 2014a). The reports specify that macroeconomic imbalances were identified in a total of fourteen Member States¹⁸, out of which three – Croatia, Italy and Slovenia, had excessive imbalances. It needs to be pointed out that the corrective arm of the MIP (i.e. Excessive Imbalance Procedure) was not initiated immediately. Firstly, the national authorities of those three countries are expected to include the results of in-depth reviews in addition to measures for preventing imbalances into their national documents – National Reform Programme and Convergence Programme (or Stability Programme in the case of a euro area member) which are submitted to the European Commission in April for assessment. At the end of the European Semester, in June, the European Commission, according to those documents, will give its assessment on the adequacy of the proposed measures. In the case of a negative assessment the European Commission is required to propose to the EU Council the initiation of the corrective arm of the MIP, i.e. the Excessive Imbalance Procedure.

The performance analysis of Member States in the previous three cycles of the MIP shows that there are certain similarities related to the detected macroeconomic imbalances among countries with comparable levels of relative income. The majority of developed countries are characterised by high public and private sector debt levels, as well as by a loss of export market shares.

Public debt level in some developed countries exceeded the threshold even in the period preceding the outbreak of the global financial crisis. For example, in 2007 general government debt in seven old Member States was higher than 60% of GDP. The negative effects of the global financial crisis and of the long lasting recession on economic activity and public finance were quite strong, and in 2012 eleven old Member States exceeded the public debt threshold. Cumulative growth in public debt in the period from 2007 to 2012 was dramatic in certain countries. For example, in Spain the share of public debt in GDP increased by 50 percentage points of GDP (from 36% to 86% of GDP), while in the same period in Ireland the cumulative increase was as much as 93 percentage points (from 25% to 117% of GDP). As regards private sector debt, except for Germany and Italy, in all developed Member States the private debt level is higher than the indicative threshold for that indicator (133% of GDP), where private debt exceeds 200% of GDP in six countries. Loss of export share of developed Member States partially reflects the fact that emerging markets intensively started participating in foreign trade, and due to that the total global exports is growing at a faster rate than the developed economies' exports. This trend is not characteristic only of developed economies in the EU, but also of advanced global economies such as the USA and Japan (Figure 3). Additionally, the geographic orientation of developed Member States' export share contributes also to the unfavourable dynamics of their market shares (di Mauro et al., 2010).

New EU Member States that at the same time have lower relative income levels generally record much lower levels of private and public sector debt and have dynamic

Figure 3 Total export market shares of selected countries



Sources: WTO and authors' calculation.

17 The European Commission conducted an in-depth review over a total of seventeen countries: Spain, Slovenia, France, Italy, Ireland, Hungary, Belgium, Bulgaria, Denmark, Malta, the Netherlands, Finland, Sweden, the United Kingdom, Germany, Luxembourg and Croatia.

18 Macroeconomic imbalances were identified in all countries subject to the in-depth review, except for Denmark, Malta and Luxembourg.

Table 2 Selected macroeconomic imbalance indicators, 2007 and 2012

	Current account balance, as % of GDP, 3 year average		Export market share, 5 year change		Private sector credit flow, as % of GDP		General government debt, as % of GDP		Unemployment rate, 3 year average	
	2007	2012	2007	2012	2007	2012	2007	2012	2007	2012
Belgium	1.9	-0.4	-10.3	-14.9	12.7	-1.6	84.0	99.8	8.1	7.7
Denmark	2.9	5.9	-8.7	-18.6	18.9	5.9	27.1	45.4	4.2	7.5
Germany	6.3	6.5	2.0	-13.2	1.9	1.5	65.2	81.0	10.1	6.2
Ireland	-4.1	2.3	-15.7	-16.3	24.0	-1.6	24.9	117.4	4.5	14.4
Greece	-11.2	-7.5	3.8	-26.7	16.9	-6.8	107.2	156.9	9.0	18.2
Spain	-8.8	-3.1	-3.2	-14.6	26.9	-10.4	36.3	86.0	8.6	22.3
France	-0.7	-1.8	-18.0	-14.0	11.8	3.5	64.2	90.2	9.0	9.9
Italy	-1.2	-2.3	-9.3	-23.8	12.4	-1.0	103.3	127.0	6.9	9.2
Luxembourg	10.7	7.0	28.2	-18.3	16.6	-5.0	6.7	21.7	4.5	4.8
Netherlands	7.8	8.8	-2.7	-12.0	9.9	0.2	45.3	71.3	4.4	4.7
Austria	2.8	2.2	0.7	-21.2	8.8	2.7	60.2	74.0	4.8	4.3
Portugal	-10.4	-6.5	-5.5	-16.0	20.6	-5.4	68.4	124.1	8.7	13.6
Finland	3.9	-0.5	-5.1	-30.8	13.1	9.0	35.2	53.6	7.6	8.0
Sweden	8.1	6.1	0.0	-18.7	22.4	1.3	40.2	38.2	7.0	8.1
UK	-2.8	-2.8	-18.6	-18.9	15.3	2.8	43.7	88.7	5.2	7.9
Bulgaria	-18.1	-0.4	43.4	4.8	43.4	2.5	17.2	18.5	8.6	11.3
Czech Republic	-2.4	-3.0	25.8	-4.2	9.7	0.6	27.9	46.2	6.8	7.0
Estonia	-13.8	0.9	39.3	6.5	30.0	4.7	3.7	9.8	6.1	13.2
Cyprus	-8.2	-6.7	-11.2	-26.6	38.6	10.0	58.8	86.6	4.7	8.7
Latvia	-19.2	-0.4	45.7	12.3	34.4	-0.7	9.0	40.6	7.8	16.9
Lithuania	-10.7	-1.3	30.7	29.3	23.1	-0.3	16.8	40.5	6.1	15.6
Hungary	-7.3	0.6	20.8	-17.8	20.3	-6.1	67.0	79.8	7.3	11.0
Malta	-8.3	-1.6	-12.1	4.5	9.4	-1.6	60.7	71.3	6.9	6.6
Poland	-4.1	-4.6	42.2	1.3	11.8	3.4	45.0	55.6	13.8	9.8
Romania	-10.8	-4.4	42.8	5.9	18.8	0.9	12.8	37.9	6.9	7.2
Slovenia	-3.0	1.2	18.7	-19.9	21.8	-3.0	23.1	54.4	5.8	8.1
Slovak Republic	-7.2	-1.7	74.4	4.2	10.1	3.2	29.6	52.4	13.7	14.0
Croatia	-6.4	-0.5	10.2	-24.7	17.9	-2.1	33.3	55.8	11.1	13.8

Note: Performances exceeding determined threshold for certain indicators are shaded.

Source: European Commission.

growth in export market share. In 2012 only one Member State out of eleven new Member States from Central and Eastern Europe exceeded the threshold for public debt (Hungary), while private sector debt was not exceeded in any of the countries from this group. Key vulnerability for the majority of those economies is the considerably negative international investment position, which is a consequence of significant capital inflows in the period after the accession to the EU. For the majority of those countries the mitigating circumstance is a relatively low net external debt, owing to a large share of foreign direct investment in total foreign liabilities.

The global financial crisis, and later the debt crisis in the euro area were strongly reflected in Member States' economies, and thus also in the relative importance of certain macroeconomic imbalances. Table 2 shows the comparison of Member States' performance according to a few selected indicators for 2007, so prior to the outbreak of the global financial crisis, to performance from 2012, by when the effects of the crisis were fully reflected in Member States' economies. Data from Table 2 confirm that considerable macroeconomic adjustments were recorded in the observed period in Member States' economies. Since the outbreak of the crisis

the developed Member States have been facing the accelerated unfavourable dynamics of export market share and a sharp growth in general government debt. Loss of export market share of developed Member States, as well as reflecting the participation of emerging market countries in foreign trade, is partially the consequence of a slowdown in the growth of foreign trade among EU Member States in the recession environment. The deterioration of the general government balance and a strong growth in public debt in developed Member States in the last couple of years can be related to several factors: the deterioration of the fiscal balance in conditions of prolonged recession, the adoption of fiscal stimulus measures and, in several countries, the financing of restructuring and recapitalisation of financial institutions (European Commission, 2011).

In the second group of countries, comprising Spain, Portugal, Ireland, Greece and the Baltic countries, a sudden correction of previously accumulated

external imbalances occurred. In the period preceding the financial crisis these countries recorded a strong inflow of foreign capital, expansion of loans and domestic demand, which contributed to the accumulation of internal and external imbalances. As a result, in 2007 all of the mentioned countries exceeded the thresholds for the indicators of current account balance, growth in private sector credit flow and international investment position. After the outbreak of the global financial crisis a strong recession hit the EU, accompanied by a sudden deceleration of foreign capital inflow, which resulted eventually in the significant improvement of the current account balance in those countries. In such conditions external imbalances and private sector debt are no longer the key macroeconomic vulnerability, while problems in the real economy and public finance intensify as a consequence of a strong contraction of domestic and foreign demand and the deleveraging of domestic sectors.

4 The significance of the Macroeconomic Imbalance Procedure for Croatia

This year Croatia was included in the Macroeconomic Imbalance Procedure for the first time, so it still needs to be seen what the participation in that procedure will yield for Croatia. In the Alert Mechanism Report that marked the beginning of the MIP for 2014, it was determined that Croatia had exceeded thresholds for three out of a total of eleven macroeconomic indicators. The European Commission hence decided to subject Croatia to an in-depth review in order to determine whether there really are some macroeconomic imbalances in the economy, and, if they are present, whether they are excessive. After the in-depth review had been conducted the European Commission concluded that excessive macroeconomic imbalances are indeed present in Croatia (European Commission, 2014b). In the report on results of the in-depth review the Commission highlights the macroeconomic imbalances accumulated in the period before the global financial crisis and their unfavourable effects, especially salient in times of prolonged recession. Key vulnerabilities for the Croatian economy arise from significant foreign liabilities, decrease in the export market share, high corporate debt

and a fast-growing public debt, all related to low growth and insufficient capacities for adjustment. It is pointed out that structural weaknesses, primarily the unfavourable business environment and the inefficient labour market also contribute to such imbalances. Further in this chapter we will analyse in more detail the structural causes for the exceeding of the thresholds for the MIP indicators that are especially problematic for Croatia.

4.1 Analysis of macroeconomic imbalances in Croatia by means of applying MIP indicators

According to performance for 2012 Croatia exceeds thresholds for three out of a total of eleven macroeconomic indicators used in the MIP. The indicators that are currently problematic for Croatia are the international investment position, dynamics of the export market share and the unemployment rate (Table 3). Since these indicators reflect not only the temporary

Table 3 Croatia's performance according to the Macroeconomic Imbalance Procedure, 2007 – 2012

	Threshold	2007	2008	2009	2010	2011	2012
Current account balance (3 year average, as % of GDP)	6% of GDP/ -4% of GDP	-6.4	-7.6	-7.1	-5.0	-2.3	-0.6
International investment position (as % of GDP)	-35% of GDP	-92.6	-73.6	-87.3	-94.4	-90.4	-88.8
Real effective exchange rate (% change, three years) ^a	±5% euro area/ ±11% EU	5.6	7.7	6.1	3.4	-3.4	-5.6
Export market share (% change, five years)	-6%	10.8	-7.2	-7.5	-15.2	-18.0	-24.5
Nominal unit labour cost (% change, three years)	9% euro area/ 12% EU	9.9	16.3	19.8	12.6	5.1	-1.1
Annual change of deflated house prices ^b	6%	8.8	-2.0	-6.8	-9.5	-5.5	-2.9
Private sector credit flow (as % of GDP)	15% of GDP	17.9	21.3	5.1	7.5	1.6	1.6 ^c
Private sector debt (as % of GDP)	160% of GDP	103.7	117.3	127.7	135.9	134.6	134.6 ^c
General government debt ^d (as % of GDP)	60% GDP	32.9	29.9	36.6	44.9	51.6	55.5
Unemployment rate (3 year average)	10%	11.1	9.7	9.0	9.7	11.4	13.7
Total financial sector liabilities (%, year-on-year)	16.5%	24.0	-9.8	6.6	3.1	0.8	0.8 ^e

^a Deflated by consumer price index for 16 countries.

^b Hedonic real estate price index deflated by personal consumption deflator.

^c Data for 2011.

^d Performance for 2007 using GFS methodology, for other years ESA 95 is used.

Note: Performances exceeding threshold are shaded.

Sources: CNB, Ministry of Finance, Eurostat and IFS.

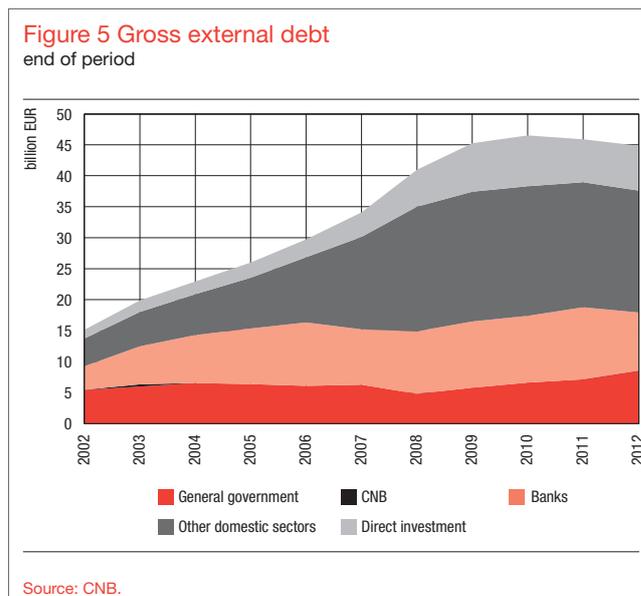
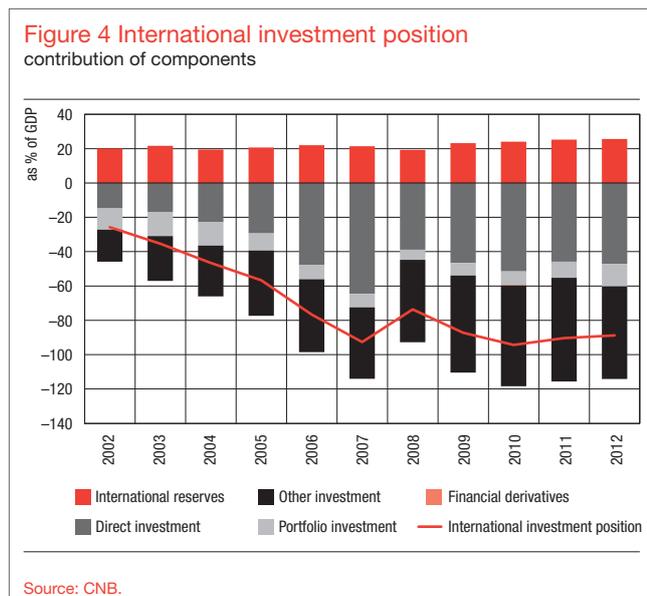
cyclical dynamics but also the structural characteristics of the economy, it is evident that in the years to come Croatia will continue to exceed thresholds for those indicators. Alongside those mentioned, in the near future a problem for Croatia will be the general government debt indicator, because in the second half of 2013, due to the continuing unfavourable economic developments, public debt reached the threshold set. Furthermore, since the recent improvement of the current account balance primarily reflects the temporary contraction of domestic demand and imports rather than a significant improvement in relative competitiveness and export performance, it is evident that the current account balance will become negative again once the dynamics of economic activity increases. Thus in the middle term the threshold for this indicator could be exceeded as well. The performance of Croatia according to MIP indicators showing the existence of macroeconomic imbalances in the Croatian economy are analysed in more detail further in the text.

4.1.1 International investment position

With the level of net foreign liabilities of almost 90% of GDP Croatia considerably exceeds the established threshold for the international investment position

indicator. Such a high level of net foreign liabilities is a result of excessive borrowing and of the related strong inflow of capital in the period of economic expansion that ended with the outbreak of the global economic crisis at the end of 2008. The accumulation of net foreign liabilities was in the beginning equally the result of direct investment inflows and of foreign loan inflows, which are recorded under 'other investment' (Figure 4). A significant share of the total external debt growth was a reflection of an increased borrowing of domestic banks from parent banks, which financed the strong growth in placements to the private sector. With regard to the potential adverse effects of intensive bank borrowing and credit expansion, in 2004 the central bank started the implementation of measures with the aim of decelerating bank foreign borrowing, and in the following years those measures were made additionally more stringent (CNB, 2006)¹⁹. Alongside decelerating the growth of bank foreign liabilities, this kind of central bank policy initiated banks' recapitalisation and their reorientation to domestic sources of funding, which contributed to the increased resilience of the banking system. This change in bank financing sources was reflected also in

¹⁹ For more details on the CNB macroprudential measures in the period of economic expansion see Bokan et al. (2010) and Galac (2011).



the structure of foreign liabilities: equity investment liabilities increase more considerably (Figure 4), while the contribution of banks to the growth in debt investment liabilities declines substantially (Figure 5). In addition to discouraging bank borrowing, the CNB gave support to the government in attempts to decrease dependence on foreign financing sources. For that purpose the CNB in a few instances directly sold to the government the foreign currency required for covering foreign liabilities and, as required, adjusted the monetary policy instruments in order to ensure to the government favourable conditions of financing on the domestic market (CNB, 2005).

However, since the CNB does not have instruments enabling it to regulate the dynamics of foreign borrowing of other domestic sectors, the total external debt has continued to increase considerably (Figure 5). Namely, as the credit potential of domestic banks decreased due to the implementation of macroprudential measures for deceleration of foreign borrowing, and later due to the reintroduction of the instrument for limiting growth of placements to the private sector (CNB 2010), enterprises have increasingly focused on foreign financing sources. Non-banking financial institutions had an important role here, alongside private enterprises (especially leasing companies established with the aim of bypassing macroprudential measures), the Croatian Bank for Reconstruction and Development and public sector enterprises. In addition to direct borrowing from foreign banks, in which domestic banks often served as intermediaries, the borrowing of domestic enterprises from affiliated enterprises was also intensive, and the consequence was the growth in external debt from direct

investment²⁰, which is shown in Figure 5.

Accumulation of foreign liabilities was related to the increase in other imbalances, for example to the accelerated growth in private sector debt, to the strong growth in asset prices and to the deterioration of the current account balance. In the period from 2002 to 2008 the private sector debt/GDP ratio increased from 64% of GDP to 117% of GDP, while at the same time the inflation-adjusted hedonic real estate price index cumulatively increased by 48%. The current account deficit in that period averagely stood at 6.5% of GDP, primarily reflecting the high deficit in goods trade, but also the significant net outflow in the income account in conditions of a high level of net foreign liabilities. The outbreak of the global financial crisis was followed by a strong contraction of domestic and foreign demand and the deceleration of foreign capital inflows in Croatia, which led to a strong correction of the current account deficit (Figure 6) and to the temporary stabilisation of net foreign liabilities (Figure 4)²¹.

However, because the mentioned narrowing of the current account deficit reflects the correction of the foreign trade deficit brought about by the weakening of aggregate demand in the period of unfavourable economic conditions and not by any structural strengthening of the export base, it is likely that any upswing in economic activity will necessarily mean the recurrence of the

20 Direct debt investment except for mutual financing of affiliated enterprises include bank borrowing based on subordinate and hybrid instruments.

21 A sudden decrease in foreign liabilities based on foreign direct investment in 2008 was not caused by the net outflow of direct investment but a sudden fall in value of shares of foreign-owned enterprises after spillover effects of the global financial crisis on the domestic capital market.

current account deficit. Achieving a balanced current account in conditions of high external debt is also hindered because the settlement of foreign liabilities causes great outflows in the income account and hence creates additional pressure on the current account balance.

It needs to be pointed out that the decrease in net foreign liabilities is not completely consistent with the targeted model of Croatian economic growth for the coming period, which should be based on an increased inflow of foreign direct investment. Not only is FDI inflow recorded as an increase in foreign liabilities and as such directly weakens the balance of the international investment position, but in the short term it may result in an increase in the current account deficit due to acceleration in investment activity related to foreign investments. Hence, with regard to the exceptionally high level of net foreign liabilities, lack of conditions for sustainable surpluses in the current account balance and the targeted model of economic growth in the following period, it is likely that even in the long term Croatia will continue to exceed the threshold for this indicator.

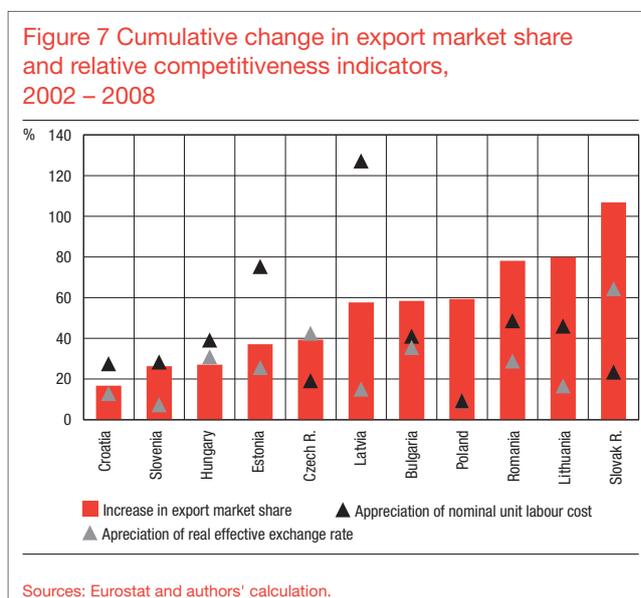
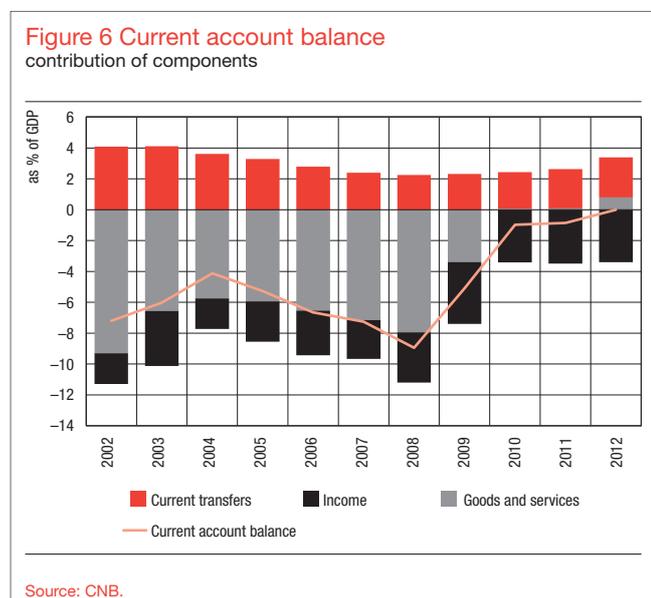
4.1.2 Export market share

According to the indicator of dynamics of the export market share, in comparison to other post-transition EU Member States Croatia is in a much more unfavourable position. In the period from 2008 to 2012 Croatia experienced a 25% decrease in export market share, which is three times higher than the threshold for this indicator. A strong decrease in exports in that period was partially cyclical, because it reflects the prolonged recession and the weakening of demand in the main export markets (CNB, 2010). However, from market

share dynamics in the period before the global financial crisis, from 2002 to 2008, it can be seen that Croatia's export performance was relatively weak despite favourable economic developments (Figure 7).

That is, Croatia's export market share in that period rose by only 13%, while new Member States in the same period recorded a considerable increase in their market shares. The weak Croatian export performance cannot be explained by a relative decline in cost and price competitiveness in comparison with the group of new Member States; in the period of economic expansion from 2002 to 2008 the nominal unit labour cost in Croatia rose cumulatively by 28%, while the real effective exchange rate deflated by the consumer price index appreciated by 13%. In the majority of new Member States the deterioration of competitiveness indicators in the observed period was stronger, but despite that those countries generally recorded much more favourable dynamics of the export market share. In relation to comparable countries Croatia lags behind particularly with regard to goods exports, and so in 2008 the total value of Croatia's goods exports stood at 21% of GDP, while in new EU Member States (Malta and Cyprus excepted) goods exports in the same year amounted to 49% of GDP on average.

Regarding the fact that Croatia did not stand out from comparable countries with respect to relative price and cost competitiveness indicators, it may be concluded that the somewhat weaker export performance is conditioned by structural factors. The problem of insufficient capacities of the export sector is definitely one of the crucial factors, and it may be related to the unfavourable structure of capital inflows in the period of



economic expansion. Foreign capital mostly came to the sectors of internationally non-tradable goods and services and hence contributed to the overheating of domestic demand, while the share of direct investment in production activities was considerably lower. Out of the total inflow in the financial account in the period from 2002 to 2008 as much as 55% of the total amount referred to debt capital, while 40% of capital inflow was recorded as foreign direct investment. The economy was negatively affected not only by a relatively weak share of direct investment in total capital inflow but also by the structure of the foreign direct investment that there was: more than a half of total inflows were absorbed by service activities such as financial intermediation, trade and real estate activities, while investments in production activities were negligible. In addition to not directly contributing to the formation of production capacities, foreign capital triggered strong credit growth and spillover of production resources into activities related to internationally non-tradable goods and services the profitability of which increased owing to the expansion of domestic demand.

4.1.3 Unemployment rate

The three-year average of the ILO unemployment rate was 13.7% in 2012, which means that Croatia considerably exceeded the threshold of 10%. With respect to the current unemployment rate (17% in October 2013)²² and to the continuing unfavourable trends in the real sector and on the labour market, it is evident that Croatia will continue to exceed the benchmark for this indicator for a long time. The strong growth in the number of unemployed persons that began in 2009 may be related to cyclical factors, since it is related to the prolonged recession in the domestic economy and in the main trading partner countries, but it is partly structural. That is, a part of the increase in unemployment is a result of an output correction in those activities that drew on the strong credit cycle before the crisis. Namely, in the period of abundant capital inflow and economic expansion from 2002 to 2008, production resources spilled over to then propulsive economic sectors such as financial intermediation, trade and construction, the development of which was facilitated by a strong growth in domestic demand. In that period the activities of internationally non-tradable goods and services in concert with the increase

in employment increased their share in total gross added value at the expense of the production sector²³.

The global financial crisis caused a deep recession in the real economy and hence the conditions on the labour market deteriorated strongly. From 2008 to 2012 the average number of employed persons, according to the Labour Force Survey results, decreased by 190,000, i.e. by 12%. In construction and trade sectors alone the number of employed persons decreased by almost 100,000, which cancelled out all the new jobs created in these two sectors in the period from 2002 to 2008. At the same time this period saw a strong fall in the number of employed persons in manufacturing, where the number of employed persons decreased by 17%, while the gross added value of this branch decreased by 19%. Due to the parallel decrease in the number of jobs in the activities of non-tradable goods and services and in manufacturing sector, economic capacities are insufficient to absorb the current surplus in the labour market. In such conditions the unemployed have no alternatives and the problem of structural unemployment occurs, which leads to the exacerbation of such unwanted phenomena as economic emigration²⁴.

Due to the strong growth in unemployment the already very low employment rate decreased additionally. In 2008 the employment rate²⁵ of working age population (ages between 15 and 74) was 49.7%, and due to the unfavourable effects of the prolonged recession on the labour market the employment rate additionally decreased to only 43.3% in 2012. With regard to this indicator Croatia is convincingly bringing up the rear in the EU, with only Greece, Spain and Italy having employment rates lower than 50%.

4.1.4 General government debt

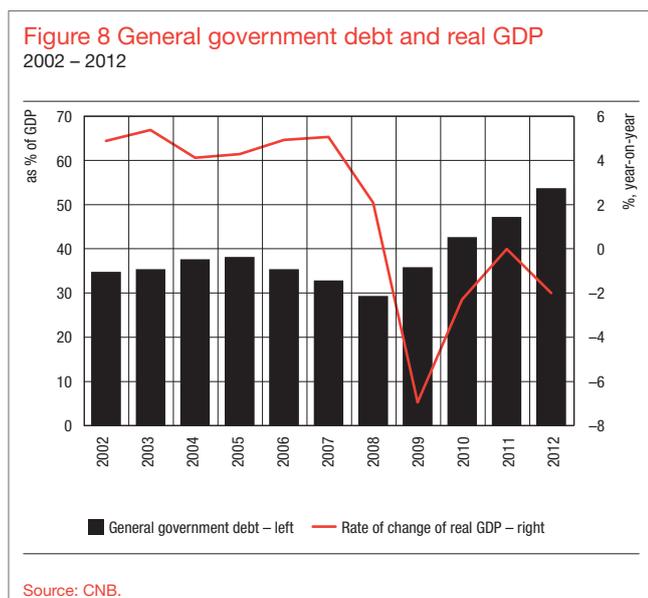
Although according to the data for 2012 (which are analysed in the MIP for 2014) Croatia did not exceed the threshold, this indicator is singled out for additional review because the dynamics of public debt in current macroeconomic conditions is very unfavourable and already during 2013 the threshold of 60% of GDP was exceeded. That represents a significant risk for Croatia

22 Seasonally adjusted Eurostat data.

23 The mentioned period saw an increase in the share of construction in the total value added by 2.5 percentage points, financial activity and insurance activity by 0.4 percentage points, while the share of manufacturing decreased by 0.7 percentage points.

24 Caballero and Lorenzoni (2007) deal with the negative effects of real exchange rate appreciation on industrial companies in the export sector. They show that export sector companies in the real appreciation phase face pressures on the cost side because they compete for production resources with, what are at that moment the profitable sectors of internationally non-tradable goods and services. When the period of real appreciation ends and the correction of imbalances occurs, the previously weakened companies in the export sector do not have sufficient capacity to employ workers laid off from the non-tradable goods and services sector.

25 Eurostat data.



because the same threshold for public debt is prescribed in the framework for nominal convergence criteria that a country needs to meet prior to the introduction of the euro. Hence, by exceeding the threshold for this indicator Croatia endangers its chance of becoming a full member of the Economic and Monetary Union in the near future.

At the moment of the outbreak of the global financial crisis at the end of 2008 Croatia's public debt was moderately high for a country that was in the process of real convergence. Although fiscal policy was conducted pro-cyclically in the previous period of strong growth, at that moment it did not seem likely that public debt could represent an obstacle to the introduction of the euro once Croatia became an EU Member State. However, the outbreak of the global financial crisis and the euro area crisis had a strong negative reflection on Croatia's economy and public finance, so the public debt to GDP ratio increased considerably (Figure 8). The general government deficit went up suddenly due to the cyclical drop in fiscal income and the growth in expenditure, and all this happened at the moment when financing on the international market was almost impossible. Under such circumstances the central bank helped maintain external liquidity by releasing the previously formed capital buffers, and fiscal policy focused on budget deficit control. Several measures were adopted, and particularly important were the increase in the value added tax rate and the introduction of crisis income tax. Although those measures helped somewhat in limiting any increase in the budget deficit, the government contributed in this way to the deepening of economic fall, which has had a negative effect on the sustainability of public

finance in middle term.

The several-year period of weakening economic activity in Croatia has slowed fiscal consolidation because it has a negative impact on key income and expenditure budget items. The continuous weakening of domestic demand and deterioration of conditions in the labour market make the recovery of the traditionally most profitable income sources impossible, such as value added tax, social contributions and income and profit taxes. On the other hand, the growing budget expenses for interest on the fast-growing public debt²⁶ and social security benefits for the growing number of unemployed persons burden the expenditure side of the budget. In the conditions of high budget deficits and the continuation of unfavourable economic dynamics, it is likely that public debt will also increase in the years to come. Only when conditions for sustainable economic growth are created a significant improvement of the general government balance may be expected and a gradual decrease in the public debt/GDP ratio.

4.2 Expectations regarding recommendations of the European Commission and the EU Council – implications for the accession to ERM II and EMU

As mentioned earlier in the paper, Croatia is included in the macroeconomic imbalance procedure for 2014, so it is encompassed by the Alert Mechanism Report which was published in November 2013. Because of the exceeded thresholds, Croatia was picked out, together with sixteen more Member States, in the Alert Mechanism Report (AMR) as a country at risk of having macroeconomic imbalances and for which the European Commission conducted an in-depth review. After the initial performance review according to the MIP indicators, it is pointed out in the AMR that the exceeding of the thresholds is related primarily to structural factors. It is noted that the exceptionally negative position of international investment is a result of continuous deficits in the current account in the period preceding the crisis and the exceptionally poor performance of the external sector reflect adverse production and geographic specialisation of exports and the loss of relative price competitiveness. With regard to the high unemployment rate,

²⁶ In 2012 interest expenses for the general government debt are HRK 3.8bn higher, i.e. 76% higher than in 2008, and the ratio of interest expenses and GDP grew in the same period from 1.5% to 2.7% of GDP.

its primarily structural character, reflected in the high share of long-term unemployment, is also highlighted in the AMR. The recent rebalancing of the current account was characterised as a consequence of domestic demand contraction, and not of a structural improvement of foreign trade performance.

Finally, after performing the in-depth review, the European Commission concluded that excessive macroeconomic imbalances do exist in Croatia. It could have been expected that the practice from the first year of implementation of the Macroeconomic Imbalance Procedure for all EU Member States will be repeated, and that despite exceeding the indicative thresholds Croatia will not be singled out as a country with excessive imbalances since this was the first time it had participated in the procedure. However, in March 2014 the European Commission concluded that the detected imbalances for Croatia are excessive after all, and hence if no decisive measures for their correction are taken, implementation of the corrective arm of this mechanism will be suggested, i.e. initiation of the Excessive Imbalance Procedure.

The conclusion that macroeconomic imbalances do exist and are damaging needs to be observed from the perspective of the introduction of the euro to Croatia. Although the conditions for the introduction of the euro have remained unchanged, the new mechanisms and rules of the overall economic governance framework may become informal criteria in assessing readiness for the introduction of the euro. Hence macroeconomic imbalance indicators could be used as informal conditions for the introduction of the euro for Member States outside the euro area. Additionally, for new Member States whose currencies still do not participate in the Exchange Rate Mechanism II (ERM II), those indicators could very likely become informal criteria in the negotiations for accession to the ERM II, which is a crucial step towards the introduction of the euro. In that sense it will be interesting to see the review of the situation with macroeconomic imbalances in the Convergence Report as soon as in June 2014, when the European Commission and the European Central Bank will give their regular assessment of the achieved convergence level in countries that still haven't introduced the euro.

5 Conclusion

The implementation of the Macroeconomic Imbalance Procedure strengthened the EU economic governance and coordination framework. Prior to that there was no mechanism to enable surveillance of Member States with respect to different macroeconomic variables. Hence it used to happen that several Member States had current account deficits that were several times higher than the usual levels for countries with such income levels, and there was no instrument that would warn them about the unsustainable imbalance level. Such countries found themselves in an exceptionally adverse situation when the global financial crisis started and the correction of previously accumulated imbalances began in the midst of recession. Consistent implementation of the MIP could increase the resilience of the EU economy if a new financial crisis should occur.

Thus, this is a new mechanism for which there is a clear need in the Economic Monetary Union, but it is still to be seen how efficiently and consistently it will be implemented. Namely, there are certain challenges with regard to the implementation of the MIP. This new

framework demands a high level of specific knowledge on each national economy, much qualitative evaluation and high-quality and up-to-date statistics. Additionally, with respect to the last phase of the procedure, an adequate response of the economic policy to identified risks and possible excessive imbalances demands a consensus that is sometimes difficult to achieve, and adjustment instruments are not always in the hands of a country's economic policy makers.

The Macroeconomic Imbalance Procedure was implemented for the first time in 2012. Despite the fact that at that moment several countries exceeded thresholds for almost half of indicators, the European Commission concluded that imbalances were not excessive in any of the Member States. However, by the time of the MIP for 2013 excessive imbalances were identified for two countries, Slovenia and Spain, and the decision that there were excessive imbalances in those two Member States was probably because in those two countries an increase in imbalances identified in the previous MIP was recorded. Several other countries also exceeded

thresholds for a number of indicators, but in their case a slight decrease in previously identified imbalances was recorded. In the 2014 MIP the European Commission identified excessive imbalances in Croatia, Slovenia and Italy, and the economic policy makers in those countries are expected to take adequate measures to mitigate those imbalances.

This year's European Semester cycle will end in June 2014, when the European Commission will propose, and the EU Council adopt, the Country Specific Recommendations. The recommendations for Croatia will refer to the identified problematic areas, or rather to those economic policy measures that might be employed to reduce the excessive imbalances. In addition to that, the recommendations for Croatia will have another important element, and that is the final assessment on whether Croatian authorities are taking sufficiently decisive measures to correct imbalances, and, consequently, whether the Council of the EU will initiate the corrective arm of the MIP for Croatia.

The importance of the MIP is the greater for countries outside the euro area because the result of this procedure may have effects on their perspectives for accession to ERM II which is one of the preconditions for the introduction of the euro. Namely, a Member State in which excessive imbalances are identified and which is subjected to the EIP, i.e. the corrective arm of the MIP, will not be able to join the Exchange Rate Mechanism because the presence of excessive macroeconomic imbalance implies that the country failed to achieve a sufficient level of sustainable convergence.

For a detailed analysis of potential imbalances in Croatia several indicators were singled out, namely those whose thresholds are likely to be exceeded in the following period. In the MIP for 2014 Croatia fails to satisfy three indicators – international investment position, trends in the export market share and unemployment rate, while the threshold for the indicator of general government debt will be exceeded in the following cycle of the procedure. Croatia's weak performance with respect to those four indicators is primarily structurally conditioned so it is not likely that they will quickly be reduced to allowed limits. For example, for the international investment position indicator Croatia exceeds the determined threshold almost three times, which is the result of a strong inflow of foreign capital in the past decade. Unfavourable dynamics in the export market share is the indicator that differentiates Croatia negatively from comparable Member States, which generally

record a significant growth in market share. Among factors that contributed to weak export results it is worth mentioning the structure of capital inflows, in which productive foreign direct investments (FDI) were negligible, as well as the focus of Croatian exports on slow-growing markets in the environment. The increase in the unemployment rate is partially a cyclical phenomenon as it occurs in conditions of weak domestic and foreign demand, but it also partly reflects the structural correction of employment in sectors with excess capacity. A strong increase in general government debt during recession can also partly be related to cyclical conditions because it is the result of a strong cyclical deterioration of the fiscal balance. However, a much more persistent recession in Croatia compared to comparable Member States is caused by structural shortcomings of the Croatian economy.

With regard to the limited room for manoeuvre of the monetary and fiscal policy as a lever for economic recovery, economic policy makers are correct to see the solution in the attraction of foreign investment to stimulate the investment cycle of the private sector and economic growth. The fact that Croatia became a full member of the EU definitely increases Croatia's attractiveness as a target country for foreign investment. The improvement of conditions for work and development of domestic enterprises needs to be taken into account, and in that sense the measures that the Government is taking to decrease illiquidity and to improve business climate in the economy are steps in the right direction.

For Croatia as a future member of the euro area the Macroeconomic Imbalance Procedure becomes extremely important if it is related with the procedure for assessing the achieved convergence level. The nominal convergence criteria for introduction of a common currency have not changed, but in addition to them the monitoring of macroeconomic imbalances may provide an overall image of the position and possible vulnerabilities of a concrete economy. Macroeconomic imbalance indicators could be used in negotiations on the participation of the national currency in the Exchange Rate Mechanism (ERM II) and it might happen that EU institutions will send a message to a Member State applying for participation in ERM II to delay its request for participation until it corrects the identified imbalances. Such a development could have a significant effect on the total dynamics of introduction of the euro in Member States outside the euro area.

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Appendix Macroeconomic imbalance indicators

1 Current account balance is one of the key indicators of an economy's external position. The presence of imbalances in the current account may imply an increased vulnerability of the economy to external shocks as well as the presence of other macroeconomic imbalances. The European Commission will not evaluate imbalances in the current account symmetrically. Greater importance will be attached to deficits, which are often related to a number of macroeconomic imbalances and risks. The risks arising from current account surpluses are not negligible, but are still considerably smaller than deficit-related risks. When evaluating the performance of Member States with regard to this indicator all the specificities of national economies will be taken into consideration, such as specificities of the income convergence process. Namely, current account deficits are not necessarily a reason for concern if they are related to vigorous investment in production capacities during the real convergence process. Such investments contribute to the growth in productivity and income, which increases the ability of the economy to settle foreign liabilities in the future. On the other hand, current account deficits are a reason for concern if they are related to accelerated accumulation of external debt and other signs of macroeconomic imbalances, such as strong private sector credit flow or excessive growth in house prices. Current account balance is an important indicator also because it is directly related to changes in the international investment position.

When selecting the current account balance indicator it has been decided that instead of the annual ratio of current account balance and gross domestic product the three-year average of that ratio will be used, in order to mitigate the effects of possible sudden annual volatilities in the current account balance. Benchmark is set at between -4% of GDP and $+6\%$ of GDP.

$$\frac{\left(\frac{CA}{GDP}\right)_t + \left(\frac{CA}{GDP}\right)_{t-1} + \left(\frac{CA}{GDP}\right)_{t-2}}{3} \cdot 100 \quad (1)$$

2 International investment position in addition to the current account balance indicator enables an analysis of the external position and dynamics of a certain economy. Apart from being dependent on the level of

net foreign assets or liabilities, the vulnerability of the external position of a country also depends on the structure of gross foreign assets and liabilities. In order to explain the external position in more detail, net external debt will be used as an auxiliary indicator. It shows the amounts of foreign liabilities that imply principal and interest repayment costs. The majority of new EU Member States are characterised by a highly negative international investment position, but also by a relatively low external debt due to a high share of direct foreign investment in total foreign liabilities.

A simple ratio of net international investment position (NIIP) and gross domestic product (GDP) will be used here as a relevant indicator. The threshold is set at -35% of GDP, which means that countries with net foreign liabilities exceeding 35% of GDP do not satisfy this indicator.

$$\left(\frac{NIIP_t}{GDP_t}\right) \cdot 100 \quad (2)$$

3 Real effective exchange rate indicates the development of relative price competitiveness of the economy in relation to main trading partners. Since this indicator is based on prices and exchange rate, and neglects other factors that impact the competitiveness of the economy, it needs to be supplemented with other indicators, for example trends in export market share in total exports. The European Commission decided to deflate the real effective exchange rate by the consumer price index with the explanation that this provides a comprehensive picture of domestic producers' price competitiveness. Nominal unit labour cost, which is also frequently used for the purpose of deflating real effective exchange rate, is used in the Macroeconomic Imbalance Procedure as an independent indicator.

In methodological terms this indicator is defined as a three-year change in the real effective exchange rate (REER) deflated by the harmonised consumer price index. The identified referent range is broader for countries outside the euro area ($\pm 11\%$) than for the euro area countries ($\pm 5\%$), with the explanation that the countries outside the monetary union naturally have higher variability of the nominal exchange rate. In addition to that, Member States outside the euro area are mostly relatively less developed economies for which the period of income convergence is still forthcoming, as is a concomitantly stronger appreciation of the real effective

This appendix is drawn up based on an article of the European Commission (2012b) which explains in detail the selection of indicators and respective thresholds for the Macroeconomic Imbalance Procedure.

exchange rate.

$$\frac{(REER_HICP_35)_t - (REER_HICP_35)_{t-3}}{(REER_HICP_35)_{t-3}} \cdot 100 \quad (3)$$

4 Export market share encompasses also those aspects of competitiveness that are not covered in indicators such as real effective exchange rate or unit labour cost. Namely, a change in the export market share is not necessarily a result of the change in price or cost competitiveness, but may be a reflection of structural and qualitative changes in the structure of exports, geographic specialisation of exports or trends in relative productivity, which in the long term is a key factor of exports.

Five-year real change in a country's export share (EXP_c) in total world export market (EXP_{world}) will be taken as the indicator for monitoring export market share dynamics. The use of a longer reference period aims to encompass long-term changes in the relative competitiveness of the economy. The threshold is set at -6% , which means that a country whose loss of export market share in the last five years was greater than 6% will not satisfy this indicator.

$$\frac{\left(\frac{EXP_c}{EXP_{world}}\right)_t - \left(\frac{EXP_c}{EXP_{world}}\right)_{t-5}}{\left(\frac{EXP_c}{EXP_{world}}\right)_{t-5}} \cdot 100 \quad (4)$$

5 Nominal unit labour cost is the indicator of cost competitiveness of the economy because it implies a potential lack of compliance between growth in nominal salaries and growth in labour force productivity.

The indicator for trends in unit labour costs is defined as a three-year change in nominal unit labour cost (ULC). As in the real effective exchange rate indicator, a broader referent range for Member States outside the euro area is also identified here ($\pm 12\%$ in relation to $\pm 9\%$ for euro area countries), with the explanation that a faster growth in unit labour cost in those countries may be tolerated due to the specificities of real convergence process.

$$\frac{(ULC)_t - (ULC)_{t-3}}{(ULC)_{t-3}} \cdot 100 \quad (5)$$

6 Trends in house prices are included in the MIP indicators because of the fact that excessive house price expansions and corrections have a strong reflection on the real economy and may imply other macroeconomic imbalances. There are several channels through which cycles in house price growth and fall may affect

the economy. Growth in house prices, for example, increases household wealth and stimulates consumption, which causes inflow of production resources into activities based on domestic demand. In addition, trends in asset prices are related to trends in monetary and credit aggregates: higher asset prices reduce the impact of asymmetrical information between borrowers and creditors because the value of collateral increases and thus credit standards loosen. Once a fall in house prices starts, collateral value decreases, which leads to deterioration in bank asset quality and a slowdown in banking system credit activity. The profitability of construction and other activities based on the domestic credit cycle decreases, which contributes to a slowdown in total economic activity and to unemployment growth.

The selected indicator for trends in house prices is the annual change in the deflated house price index. Real estate price index is an experimental house price index (HPI) available at Eurostat, and personal consumption deflator (DEFL) will be used for deflation, also from Eurostat²⁷. The threshold is set at 6% .

$$\left(\frac{\frac{HPI_t}{DEFL_t} - \frac{HPI_{t-1}}{DEFL_{t-1}}}{\frac{HPI_{t-1}}{DEFL_{t-1}}} \right) \cdot 100 \quad (6)$$

7 Private sector debt is defined as the ratio of households' and non-financial corporations' liabilities from loans and issued securities to GDP, and it is calculated using non-consolidated data from annual financial accounts. This indicator may serve as a measure of private sector vulnerabilities to changes in the business cycle, inflation rate and interest rate. In the conditions of high private sector debt level there is a risk that the private sector will start a deleveraging process in the recession period, which may postpone economic recovery. Since financial development contributes to the private sector debt, old Member States generally record considerable household and non-financial corporation debt in relation to new Member States, which are generally less developed financially.

The European Commission selected this debt indicator because it includes, in addition to liabilities from banking loans, liabilities from other financing forms, such as financing within a group of affiliated companies, external debt or emission of securities. Private sector debt (PSD) is defined as a total amount of liabilities of the private sector from loans received and securities issued (with the exception of shares) and it is expressed in

²⁷ Since the experimental house price index is not available for Croatia, this paper used the hedonic real estate price index created by the CNB.

terms of GDP. The threshold for this indicator is set at 160% of GDP.

$$\left(\frac{PSCF_t}{GDP_t}\right) \cdot 100 \quad (7)$$

8 Private sector credit flow measures the annual change in the previously defined private sector debt indicator. Private sector credit flow is an important indicator because credit expansion increases vulnerabilities in the banking sector, and may be related to a number of other unwanted phenomena such as accumulation of external imbalances and excessive growth in asset prices.

Since there are great differences in the initial private sector debt level among Member States, the private sector credit flow (PSCF) and gross domestic product (GDP) ratio provides a more precise impression of the intensity of private sector borrowing than the private debt growth rate. Namely, a private debt growth rate of 10% could be much riskier for Sweden in which private sector debt is higher than 230% of GDP than for the Czech Republic where the debt is lower than 80% of GDP. Only when the borrowing dynamics is put into a ratio with GDP do the indicators for different countries become comparable. Threshold is set at 14% of GDP.

$$\left(\frac{PSD_t}{GDP_t}\right) \cdot 100 \quad (8)$$

9 General government debt is included in indicators in order to provide an idea of the total indebtedness of all sectors of the economy, together with the indicator of private sector debt. Thus, the motivation to include this indicator was not to assess the position in public finance, since that area has already been covered by the Stability and Growth Pact (SGP).

The threshold for this indicator is equal to the threshold for public debt criteria in nominal convergence criteria, i.e. 60% of GDP. General government debt is included in the formula as an abbreviation GGD.

$$\left(\frac{GGD_t}{GDP_t}\right) \cdot 100 \quad (9)$$

10 Unemployment rate is included among indicators because high unemployment may imply an adverse resource allocation in the economy and the insufficient ability of the economy to adapt. Instead of annual values, this indicator takes three-year averages of the unemployment rate (UR) in order to emphasise the medium term ability of the labour market to adapt. The threshold is set at 10%.

$$\left(\frac{(UR)_t + (UR)_{t-1} + (UR)_{t-2}}{3}\right) \quad (10)$$

11 Total financial sector liabilities is a general measure for an increasing financial sector exposure to potential risks. A risk indicator in the financial sector defined this simply provides a good base for comparison among Member States because it avoids difficulties with instrument classification, and another advantage is that it does not discriminate with regard to financing models that may differ significantly among Member States.

The indicator is defined as annual growth of total financial sector liabilities (TFSL). Financial sector here includes the central bank, commercial banks, insurance companies, pension funds and other financial intermediaries. The threshold is set at 16.5%.

$$\frac{(TFSL)_t - (TFSL)_{t-1}}{(TFSL)_{t-1}} \cdot 100 \quad (11)$$

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