

ISTRAŽIVANJA
HRVATSKE NARODNE BANKE



CROATIAN NATIONAL BANK RESEARCH PRIORITIES PROGRAMME

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HRVATSKA NARODNA BANKA

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Summary

The programme of the Croatian National Bank research priorities describes and sets the course of central bank research. The research and its topics are based on CNB objectives and tasks as defined by law. The objectives of CNB research are manifold and include the provision of support to the decision-taking process, creation of the public good, enhancement of labour visibility and central bank influence and human resources and research capabilities strengthening. Although CNB research results are used by a wide range of users, from public policy authorities and scientists to the business community, research areas focus on the objectives and tasks defined in the Act on the CNB. Priority research areas are related to the conduct of monetary policy with the aim of achieving price stability, macroprudential policy with the aim of achieving financial stability, support to economic policies of the Government of the Republic of Croatia and the European Union and improvement of the payment system. In line with the strategic orientation of the Government of the Republic of Croatia, a special emphasis is placed on research into the processes and effects of the adoption of the euro as the future official currency of the Republic of Croatia. Thus defined priority research areas and topics provide a long-term research framework. The programme of research is based on a regular annual research plan.

1. CNB research objectives and function

The Croatian National Bank conducts research for the purpose of achieving its legally defined objectives and tasks. The basic objective of the CNB is to achieve and maintain price stability. Without prejudice to the achievement of this objective, the CNB supports the economic policy of the Republic of Croatia and the general economic policy of the European Union in line with the principle of open market economy and free competition. The CNB supports the safety and reliability of the banking system and stability of the financial system as a whole by formulating and implementing monetary and macroprudential policies, issuing banknotes and coins, conducting oversight and supervision, managing credit institutions' accounts and payments across these accounts and setting up and promoting the payment system.

To achieve these objectives and tasks, as the monetary authority and bank and payment system regulator, the CNB has at its disposal a range of powers. The use of these instruments is very complex and requires a good understanding of economic relations in Croatian, European and the global economy. The CNB generally publishes most of its research results to make them available to other users for their business purposes. The quality of the published research strengthens the channels through which the central bank operates and adds to its visibility. Research also implies continuous learning and development of the central bank's research capacity.

Support to the business process

The bulk of the research focuses on CNB-related objectives and tasks to provide support to the management in the conduct of monetary policy and achievement of other tasks prescribed by law. The working of monetary policy is very complex and requires a good understanding of economic relations. These relations are not static but prone to change under the influence of a number of internal and external factors, requiring continuous improvement of the research function. A part of the research also focuses on the evaluation and modelling of possible monetary policy conduct options. The CNB also studies the issues related to financial stability, bank and payment system supervision, and the formulation of rules on both EU and wider level. A special emphasis is also placed on the study of the effect of technological changes. The findings are used in decision-taking related to central bank powers.

Better understanding of the Croatian economy

Although research is linked with the legally prescribed mandate of the CNB, the obtained results provide a better understanding of the Croatian economy. By publishing its research results, the CNB shares the knowledge acquired on the Croatian economy with a wide circle of potential users. In particular, this refers to the Government of the Republic of Croatia and other public policy authorities, the policy of which is continuously supported by the CNB. CNB research results are also used by scientists studying the Croatian economy. The information obtained by research is also used by other economic entities, particularly companies, and households, when making business decisions, decisions on consumption,

investments and allocation of working and other production resources. Therefore, CNB research results constitute a public good.

Heightened CNB visibility

Recognisability and heightened visibility are important objectives of central bank research since they have a direct impact on central bank credibility and the degree of fulfilment of its basic objectives. The presence in discussions on economic issues in scientific research and publication of papers promotes the quality of monetary policy discussions which may contribute to the quality of the conduct of monetary policy. The publication of papers in scientific journals improves communication with other professionals. Central bank presence in such circles improves its transparency, provides support to central bank policies and strengthens the channels through which its instruments operate. Central bank visibility influences the achievement of its legally prescribed objectives in many ways. Firstly, the central bank can obtain public support in the fulfilment of its tasks. Secondly, it strengthens the measures it implements. Central bank transparency and visibility also influence the perception of participants in the global financial market of the Croatian economy and thus also the conditions of financing of Croatian companies, banks and households. Finally, the quality of the published papers of central bank employees strengthens its arguments in a broader coordination of economic policies in Croatia, the European Union and international financial institutions.

Therefore, the quality and dissemination of research results among the professional and wider public audience is of key importance. The publication of research results encourages broader academic discussion and further research by domestic and foreign professionals into the topics associated with the fulfilment of central bank tasks. This multiplies the effect of research as support to the process of decision-taking on monetary and financial policies. The Croatian National Bank therefore encourages the publication of its research in its publications and scientific journals in Croatia and abroad.

Development of the bank's human resources

Scientific and professional research are continuous activities which help improve the knowledge and experience of central bank employees. Employees' knowledge is used in the execution of a whole range of tasks within the CNB. The monitoring and study of the development of scientific achievements, institutional forms of activity in a market economy and new technologies are of particular importance in the conditions of accelerating technological innovations which mark the beginning of the 21st century. The strengthening of the research function plays a key role in the building of capacities for embracing and implementing new work methods and technologies, thus facilitating the fulfilment of the CNB's legislative mandate.

2. Priority research areas of the CNB

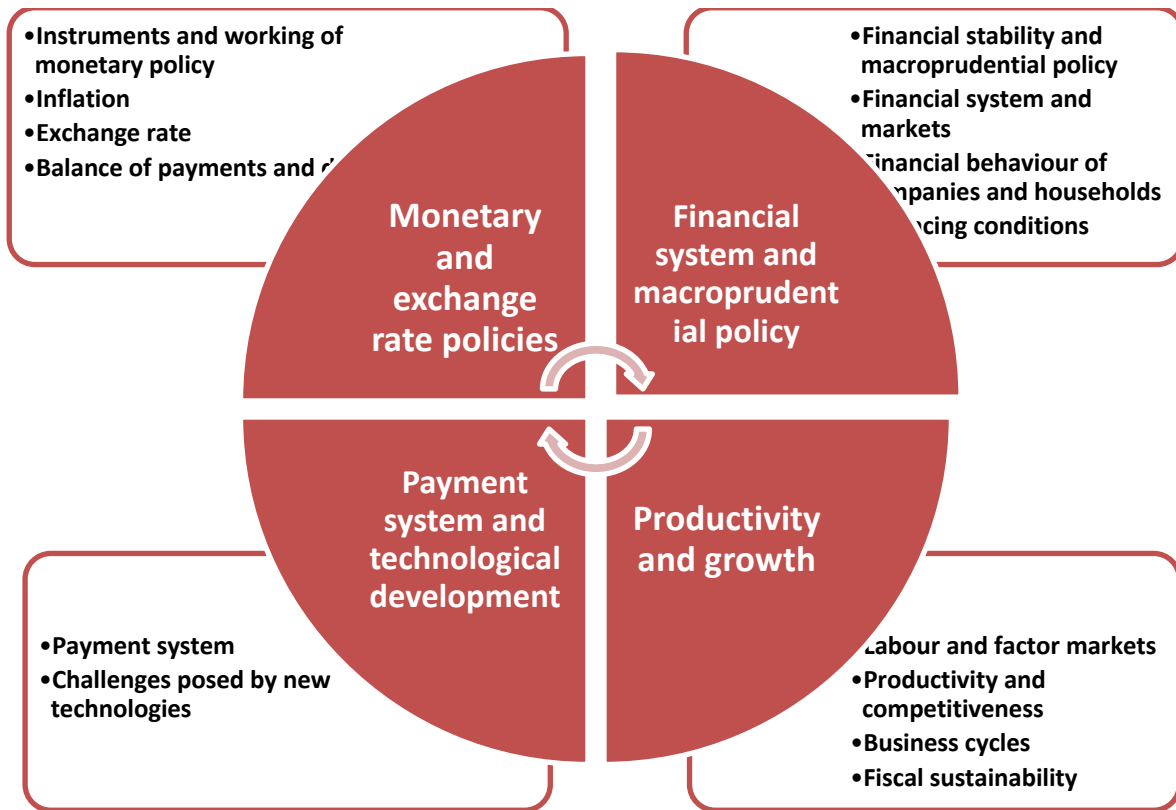
Priority research areas stem from CNB objectives and tasks and may be classified into four groups.

The first priority research area relates to the fulfilment of the basic objective of the Croatian National Bank – price stability. It includes research associated with monetary policy and its instruments, developments in inflation, exchange rate and international financial relations.

The second area of research focuses on the financial system. Research in this area studies financial developments, risks accumulated in the financial system and the economy and the effect of macroprudential measures and microprudential policies aimed at risk mitigation and financial system resilience strengthening. To this end, the research studies the financial system and markets, companies and households' financial behaviour and their access to financing and long-term sustainability of their financial position.

The third area of research involves the study of productivity and growth of the Croatian economy. This involves in particular the study of growth potential of the labour market and other production factors and developments in productivity and competitiveness. An issue of great importance is the development of business cycles in regard to the importance of monetary policy for alleviating cyclic fluctuations. The research also studies fiscal sustainability as one of the main determinants of overall macroeconomic stability.

The fourth priority research area involves the payment systems and the challenges posed by technical innovation, particularly in the financial system (fintech).



Priority research areas of the Croatian National Bank

Priority area 1 Monetary and exchange rate policies

The Croatian National Bank is the central bank of the Republic of Croatia and its main objective is to maintain price stability. It achieves this objective by pursuing monetary and exchange rate policy. The CNB uses monetary policy instruments to influence the economy and achieve low and stable inflation. To achieve maximum results in the fulfilment of its objective, the CNB examines the effects of monetary policy instruments and measures on the financial system and the economy. Understanding of the transmission mechanism of the monetary and exchange rate policy is key to understanding the way in which central bank objectives are met. In addition to monetary and exchange rate policy, the Croatian economy is also influenced by a range of domestic and foreign factors, the impact of which has to be understood in order for the conduct of monetary policy to be successful.

CNB's main instrument for maintaining price stability is exchange rate stability of the kuna against the euro. The exchange rate of the kuna influences the Croatian economy through a number of channels. On the one hand, by determining relative prices of the domestic factors in relation to foreign ones, the exchange rate affects the competitiveness of the Croatian economy and international trade. On the other hand, the exchange rate affects balance sheets of Croatian households, companies, banks and the government since economic entities have a portion of the real and financial assets and liabilities expressed in a foreign currency. A change in the exchange rate leads to changes in income and associated payments and net assets expressed in kuna which influences the behaviour of economic entities and the economy as a whole. Changes in the exchange rate of the kuna have a direct impact on developments in kuna prices of import goods and services in the producer and consumer basket.

The developments in Croatian economy are largely determined by real and financial developments abroad. Global financial conditions and the state of the global supply and demand generally transfer directly to Croatian small and open economy. Some of the imbalance between domestic aggregate supply and demand can be met abroad while at the same time foreign financing conditions and the prices of goods, services and production factors strongly influence the Croatian economy. Therefore, the monitoring of international economic relations is closely associated with the achievement of the basic objectives of the CNB, particularly price stability.

Published papers dealing with the priority area monetary and exchange rate policies

Priority area 2 Financial system and macroprudential policy

In the last ten years a special emphasis has been placed on the role that central banks play in maintaining financial stability because global financial crisis has shown that maintaining low and stable inflation does not provide guarantee of financial stability. However, the banking industry was also highly regulated before since banks hold less capital in relation to their business volume than other companies and the government guarantees for the deposits covered by a guarantee scheme. Particular attention is being paid to stability of the whole banking and financial system. Financial instability can disrupt the flow of loans to the economy and result in a significant loss of production and income and create considerable fiscal costs. To achieve financial stability, the CNB has at its disposal a range of macroprudential policy instruments.

By acting on the banks, using monetary and macroprudential policy the central bank has an indirect effect on the conditions of financing of other economic entities. Financial developments are affected by a line of other factors studied by the CNB to understand as much as possible and influence financial developments and financing conditions. A special emphasis is also laid on the protection of users of banking services.

The CNB also pays particular attention to the study of the mechanisms of transmission of financial developments to the real economy, i.e. the financial behaviour of companies and households, their risk-taking and long-term sustainability of their financial positions. The understanding of their behaviour enables a better use of the available instruments and measures for achieving the central bank's objectives and tasks as defined by law.

Published papers dealing with the priority area financial system and macroprudential policy

Priority area 3 Productivity and growth

The CNB studies broader economic developments for a number of reasons. On the one hand, the monetary and exchange rate policy affects price stability in an indirect way, through persistent adjustments and responses of economic entities in the real sector. The business and financial condition of the real sector has a direct impact on bank stability. In addition to the objective of price stability, the CNB also supports other economic objectives of the Government of the Republic of Croatia and the European Union.

Sources of economic growth represent the key economic issue of the relation between the real sector and monetary policy. Therefore, the CNB studies the markets of production factors, particularly the labour market. Apart from the direct impact of developments in the labour market on the size and dynamics of potential products, changes in the labour market and other factor markets also have an impact on changes in production conditions and costs and hence on the prices of products and services. At the same time, developments in wages and total disposable income largely determine the dynamics of total aggregate demand and prices.

Of special interest are developments in productivity of production factors and their competitiveness in relation to foreign production factors. The CNB therefore studies those domestic and foreign factors that affect factor productivity. This helps economic policy makers to better understand and influence the dynamics and achievement of a line of monetary, financial and macroeconomic stability objectives.

The standard role of monetary policy, in terms of achieving price stability, is to ensure macroeconomic management of market trends. In the conditions of accelerated growth aggregate demand exceeds supply, pushing prices up and, in small and open economies, exerting pressure on current account balance. Low demand pushes downwards the prices of products, services, production factors and increases foreign deleveraging. Therefore, the central banks must monitor closely the conditions of the business cycle to be able to take measures to mitigate excessive fluctuations in aggregate production and income. In this context, the CNB also examines the effects of fiscal policy on economic activity and the economy's competitiveness, which is important in the context of limited space for monetary policy implementation.

In addition, a long-term macroeconomic stability largely depends on public finances sustainability. Where fiscal imbalances exist, economic entities can expect to see future changes in fiscal policy. Generally, their reaction is not gradual but rather they may tend to suddenly change their expectations upon becoming aware that the existing fiscal imbalances become unsustainable. As a result, central banks pay special attention to research into the stability and long-term sustainability of public finances.

Published papers dealing with the priority area productivity and growth

Priority area 4 Payment system and technological development

The CNB also operates and regulates the payment system. To that end, the CNB monitors developments in the payment system to ensure timely identification and taking of the required measures and innovations with the aim of achieving stability and efficacy of that system and its continuous development.

Technological development, particularly that in the area of financial innovations, plays a special role in payment system developments and overall financial system and the economy. Financial innovations have witnessed considerable growth in the past ten years as a result of computer capacity development and a large increase in the volume of data and their storage and use capabilities. Accordingly, the CNB follows technological developments and looks into the possible impacts of those developments on the financial sector and the economy as a whole.

Published papers dealing with the priority area payment system and technological development

Priority research topic: joining the ERM II and adoption of the euro

The Government of the Republic of Croatia and the Croatian National Bank have committed to fulfil the obligation of the introduction euro as the official currency of the Republic of Croatia as soon as possible. It will be a process of exceptional significance that will change the nature of monetary policy in Croatia. Instead of monetary policy exclusively aimed at developments in the domestic economy which is, owing to a high degree of euroisation, faced with limited manoeuvring space, the CNB will participate in the formulation of a common monetary policy of the European Central Bank. The adoption of the euro will also eliminate the exchange rate risk in business and financial decisions of domestic economic entities. The CNB will therefore closely analyse the effects of the transition to the euro for the central bank and the Croatian economy as a whole. The CNB will also closely monitor the process of adoption of the common currency, from joining the Exchange Rate Mechanism (ERM II), monetary and exchange rate policy functioning in the ERM II, to the fulfilment of the conditions for the adoption of the common currency and ultimately the introduction of the euro. The CNB will also look into any additional issues regarding the process of the adoption of the euro and price and income convergence towards average levels in the euro area. Research into the topic of the adoption of the euro is the priority topic among a broader range of research areas.

In addition to the described priority areas and topics, the CNB also examines other issues directly and indirectly associated with the achievement of legally prescribed objectives and tasks of the central bank.

Thus defined, priority research areas and topics provide a long-term research framework. The programme of research is determined based on the annual research plan.

3. Overview of recently published papers by priority areas

Priority area 1 Monetary and exchange rate policies

1.1 Instruments and working of monetary policy

Bokan, N. and Ravnik, R. (2018): *Quarterly Projection Model for Croatia*, CNB Surveys, S-34

Brkić, M. and Šabić, A. (2018): *Is the Euro the Optimum Currency for Croatia: An Assessment Using the Optimum Currency Area Theory*, Privredna kretanja i ekonomska politika (also published in CNB Surveys, S-30)

Dumičić, M., Ljubaj, I. and Martinis, A. (2017): *Persistence of Euroisation in Croatia*, CNB Surveys, S-31

Gattin-Turkalj, K. and Ljubaj, I. (2017): *CNB Transparency and Monetary Policy*, CNB Surveys, S-25

1.2 Inflation

Pufnik, A. (2018): *Effects of the Adoption of the Euro on Consumer Prices and Inflation Perceptions: An Overview of Experiences and Assessment of the Possible Impact in Croatia*, Privredna kretanja i ekonomska politika, 27(1) (also published in CNB Surveys, S-27)

Comunale, M. and Kunovac, D. (2017): *Exchange Rate Pass-Through in the Euro Area*, ECB Working paper (also published in CNB Working Papers, W-46)

Jovičić, G. and Kunovac, D. (2016): *What is Driving Inflation and GDP in a Small European Economy: The Case of Croatia*, CNB Working Papers, W-49

1.3 Exchange rate

Bukovšak, M. Lukinić Čardić, G., and Pavić, N. (2018): *Structure of Capital Flows and Exchange Rate: the Case of Croatia*, Empirica (also published in CNB Working Papers, W-52)

1.4 Balance of payments and debt

Ranilović, N. (2017): *The Effects of Economic Integration on Croatian Merchandise Trade: A Gravity Model Study*, Comparative Economic Studies, September 2017, Vol. 59 (3), pp. 382-404 (also published in CNB Working Papers, W-50)

Jošić, H. and Jošić, M. (2015): *Comparative Static Analysis of Tariffs in Partial Equilibrium Model: Small Country Case*, Poslovna Izvršnost/Business Excellence 9(2), pp. 51-62

Valdec, M. and Zrnc, J. (2015): *The Direction of Causality between Exports and Firm Performance: Microeconomic Evidence from Croatia Using the Matching Approach*, Financial Theory and Practice, 39(1)

Ćudina, A. and Sušić, G. (2013): *The Impact of Croatia's Accession to the EU on Economic Relations with the CEFTA Countries*, Ekonomski pregled, pp. 376-396

Priority area 2 Financial system and macroprudential policy

2.1 Financial stability and macroprudential policy

Dumičić, M. (2018): *Effectiveness of Macroprudential Policies in Central and Eastern European Countries*, Public Sector Economics, 42(1) (also published in CNB Working Papers, W-48)

Dumičić, M. (2017): *A Brief Introduction to the World of Macroprudential Policy*, Journal of Central Banking Theory and Practice, 6(1) (also published in CNB Surveys, S-18)

Dumičić, M. (2015): *Financial Stress Indicators for Small, Open, Highly Euroized Countries: The Case of Croatia*, Financial Theory and Practice, 39(2) (also published in CNB Working Papers, W-43)

2.2 Financial system and markets

Kraft, E. and Huljak, I. (2018): *How Competitive is Croatia's Banking System? A Tale of Two Credit Booms and Two Crises*, CNB Working Papers, W-54

Delalić, A., Ćurković, M. and Antić, J. (2018): *The Croatian Banking System Total Assets Concentration Dynamics: Performing a Variety of Inequality Measures*, Croatian Review of Economic, Business and Social Statistics, 4(1), pp. 14-26

Dumičić, M. and Ljubaj, I. (2017): *Delayed Credit Recovery in Croatia: Supply or Demand Driven?*, CNB Working Papers, W-45

Bambulovic, M., Huljak, I. and Kozul, A. (2017): *Testing Out the Disciplinary Role of Debt in Croatian Banks*, Croatian Review of Economic, Business and Social Statistics, 3(1), pp. 45-62

Rosan, M. (2017): *Exposure of the Private Non-financial Sector to Interest Rate Risk: Analysis of Results of the Survey on Interest Rate Variability*, CNB Surveys, S-24

Dumičić, M. and Ljubaj, I. (2016): *Are Shadow Banks Hiding in Croatia as Well?* CNB Surveys, S-20

Dumičić, M. (2014): *Financial Stress Indicators for Small, Open, Highly Euroised Countries – the Case of Croatia*, CNB Working Papers, W-41

Dumičić, M. and Ljubaj, I. (2013): *Determinants of Banks' Net Interest Margins in Central and Eastern Europe*, *Financial Theory and Practice*, 37(1), pp. 1-30

Jakelic, D. (2013): *The Role of Controlling in Central Banking and the Criteria of Controlling Efficiency*, *Ekonomski pregled*, 64(4), pp. 397-428

2.3 Financial behaviour of companies and households

Grebenar, T. (2018): *Behavioural Model of Assessment of Probability of Default and the Rating of Non-Financial Corporations*, CNB Working Papers, W-56

Broz, T. and Ridzak, T. (2017): *Lending Activity and Credit Supply in Croatia During the Crisis*, *Journal of Policy Modeling*, Vol. 39(6), pp.1102-1116

Dumičić, M. and Ljubaj, I. (2017): *Corporate Debt Overhang in Croatia: Micro Assessment and Macro Implications*, CNB Working Papers, W-51

Ljubaj, I. and Petrović, S. (2016): *A Note on Kuna Lending*, CNB Surveys, S-21

Pintarić, M. (2016): *What Is the Effect of Credit Standards and Credit Demand on Loan Growth? Evidence from the Croatian Bank Lending Survey*, *Comparative Economic Studies*, 58(3), pp. 335-358

Dumičić, M. and Ljubaj, I. (2014): *Credit Cycles and Central Bank Policy in Croatia: Lessons from the 2000s*, *Financial Cycles and the Real Economy: Lessons for CESEE Countries*, Edward Elgar Publishing, 96-113

Herceg, I. and Nestić, D. (2014): *A New Cluster-Based Financial Vulnerability Indicator and Its Application to Household Stress Testing in Croatia*, *Emerging Markets Finance and Trade*, 50(5), pp. 60-77

2.4 Financing conditions

Kunovac, D. and Pavić, N. (2018): *Can the Adoption of the Euro in Croatia Reduce the Cost of Borrowing?* *Privredna kretanja i ekonomska politika*, 27(1) (also published in CNB Surveys, S-28)

Kunovac, D. and Ravnik, R. (2017): *Are Sovereign Credit Ratings Overrated?*, *Comparative Economic Studies*, 59(2), 210-242 (also published in CNB Working Papers, W-47)

Kunovac, D. (2013): *The Borrowing Costs of Selected Countries of the European Union - the Role of the Spillover of External Shocks*, CNB Working Papers, W-38

Priority area 3 Productivity and growth

3.1 Labour and factor markets

Draženić, I., Kunovac, M. and Pripužić, D. (2018): *Dynamics and Determinants of Emigration: the Case of Croatia and the Experience of New EU Member States*, Public Sector Economics (accepted for publication)

Kunovac, M. (2018): *Determinants of Labour Cost Adjustment Strategies during the Crisis – Survey Evidence from Croatia*, CNB Working Papers, W-42

Kunovac, M. and Pufnik, A. (2015): *Features of the Labour Market and Wage Setting in Croatia: Firms Survey Results*, CNB Surveys, S-19

Brkić, M. (2015): *Labor Market Duality and the Impact of Prolonged Recession on Employment in Croatia*, Croatian Economic Survey, 17(1), pp. 5-45

Kunovac, M. (2014): *Employment Protection Legislation in Croatia*, Financial Theory and Practice, 38(2), pp. 139-172

Productivity and competitiveness

Valdec, M. and Zrnc, J. (2018): *Characteristics of Croatian Manufacturing Exporters and the Export Recovery during the Great Recession – the CompNet Trade Module Research Results*, CNB Surveys, S-35

Vidaković Peruško, I., Kovač, K. and Jošić, M. (2018): *Croatia in Global Value Chain*, CNB Surveys, S-32

Bańbura, M. et al. (Ravnik, R.) (2018): *Business Investment in EU Countries*, ECB Occasional Paper, No. 215.

Valdec, M. and Zrnc, J. (2018): *Microeconomic Aspects of Productivity Developments during the Great Recession in Croatia – the CompNet Productivity Module Research Results*, CNB Surveys, S-22

Vetlov, I., Ferdinandusse, M., De Jong, J. and Funda, J. (2017): *The Effect of Public Investment in Europe: a Model-based Assessment*, No. 2021, Working Paper Series, European Central Bank

Jovičić, G. (2017): *Estimating Potential Growth and Output Gap in Croatia*, CNB Surveys, S-29

Đozović, E. (2017): *Price Competitiveness of the Manufacturing Sector – a Sector Approach Based on Technological Intensity Level*, CNB Surveys, S-23

Galac, T. (2015): *Microeconomic Aspects of the Impact of the Global Crisis on the Growth of Non-financial Corporations in the Republic of Croatia*, CNB Working Papers, W-44

3.3 Business cycles

Kunovac, D., Mandler, M. and Scharnagl, M. (2018): *Financial Cycles in Euro Area Economies: A Cross-Country Perspective*, Deutsche Bundesbank Discussion Paper No. 04/2018 (also published in CNB Working Papers, W-55)

Rünstler, G. et al. Kunovac, D. (2017): *Real and Financial Cycles in EU countries: Stylised Facts and Modelling Implications*, ECB Occasional Paper, No. 205

Čobanov, A. (2018): *Seasonal Adjustment of Time Series and Calendar Influence on Economic Activity*, CNB Surveys, S-33

Bukovšak, M., Čudina, A. and Pavić, N. (2018): *The Effects of the Euro Adoption in Croatia on International Trade and Foreign Direct Investments*, Privredna kretanja i ekonomska politika, 27(1) (also published in CNB Surveys, S-26)

Kunovac, D. and Ravnik, R. (2017): *Coherence of Business Cycles and Economic Shocks between Croatia and Euro Area Member States*, CNB Working Papers, W-53

Jovičić, G. and Kunovac, D. (2017): *What is Driving Inflation and GDP in a Small European Economy: The Case of Croatia*, CNB Working Papers, W-49

(Ravnik, R.) (2014): *Short-Term Forecasting of GDP under Structural Changes*, CNB Working Papers, W-40

Kunovac, D. and Špalat, B. (2014): *Nowcasting GDP Using Available Monthly Indicators*, CNB Working Papers, W-39

Vujčić, B., Deskar-Škrbić, M., Ratkovski, Z. and Zrnc, J. (2014): *Functional Distribution of Income and Economic Activity in Croatia: Post-Keynesian Approach*, Proceedings of Rijeka Faculty of Economics: Journal of Economics and Business, Rijeka Faculty of Economics: Journal of Economics and Business, 32(1)

3.4 Fiscal sustainability

Bokan, N., Hughes Hallett, A., and Jensen, S.E.H. (2016): *Growth-Maximizing Public Debt under Changing Demographics*, Macroeconomic Dynamics, 20(6), pp. 1640-1651

Brkić, M. (2016): *Greek Sovereign Debt Crisis: Causes, Fiscal Adjustment Programs and Lessons for Croatia*, Croatian Economic Survey, 18(1), pp. 71-99

Bernardić, D. and Vujčić, B. (2015): *Implementation of the Intertemporal Budget Constraints - The Case of Sustainability of the Public Debt of the City of Zagreb*, Ekonomski pregled, 66(6), pp. 558-578

Bobetko, A., Dumičić, M. and Funda, J. (2013): *Fiscal Determinants of Government Borrowing Costs: Do We Have Only Ourselves to Blame?*, Financial Theory and Practice, 37(2), pp. 135-159

Priority area 4 Payment system and technological development

4.1 Payment system

Poldrugac, P. (2014): *Counterfeiting Currency in Croatia: Current Situation and Potential Threats When the Euro Is Introduced*, *Privredna kretanja i ekonomska politika*, 23(134), pp. 91-118

4.2 Challenges posed by new technologies

Smojver, S. and Blažeković, D. (2015): *Information Systems Outsourcing in Croatian Banks: Developments 2005-2012*, *Ekonomska istraživanja / Economic Research*, 28(1), pp. 259-270