FIRSTRUN Deliverable 8.2: Progress Report

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Project Acronym: FIRSTRUN

Project title: Fiscal Rules and Strategies under Externalities and Uncertainties

Progress report

Period covered by the report: from 01/03/2016 to 28/02/2017

[1] The term 'project' used in this template equates to an 'action' in certain other Horizon 2020 documentation

1. Explanation of the work carried out by the beneficiaries and overview of the progress

The FIRSTRUN project investigates the need for fiscal policy coordination in the EU, assesses the coherence of the recent reforms in the economic governance framework, and seeks to identify reforms to fill possible gaps in the current EU governance framework.

During the second year of our projected, we have been able to apply the data and the models that were collected and developed during the first year. For instance, we have used the data set consisting of the Commissions' real time estimates of fiscal measures from year 2000 onwards to analyse the importance of the revisions of the cyclically adjusted budget balance (D2.4), the extended version of the NiGEM model to analyse the interaction of monetary and fiscal policy (D4.3), and the new two-country DSGE model to consider different forms of fiscal policy coordination (D3.2).

The results provide new insights about the effectiveness of the enhanced EU economic governance. One important issue highlighted by our results relates to the difficulties in assessing the output-gap in real time. Our results also illustrate how various fiscal policy spillovers should be taken into account when designing fiscal policy coordination. In addition, we have identified some problems with the implementation of the rules (D6.4 and D6.5). In ongoing work, we investigate how these insights could be incorporated into the EU economic governance.

With new results at hand, we have also increased our dissemination activities. We have presented our work and preliminary results in several workshops and conferences. We published three research articles in the *National Institute Economic Review*, a well-recognized scholarly journal focusing on policy oriented applied economic research. We have also published several blog posts intended for a wider audience.

Except for D1.5, all deliverables that were due by the end of the second year of the project have been submitted. D1.5 will be submitted later this year. The delay with this deliverable is due to staff changes at CEPS.

Overall, our project has progressed well and we have been able to follow our research plan. In the third and final year of our project we will focus on the policy implications of our research.

In what follows, we list the main objectives of our project and explain in more detail the work carried out in different WPs by each partner towards those objectives.

1.1 Objectives

The FIRSTRUN project pursues the following interrelated goals:

i) To assess the effectiveness of the enhanced EU economic governance in securing fiscal sustainability and effective stabilization;

ii) to quantify the importance of fiscal policy spillovers and the gains from fiscal policy coordination in the EU;

iii) to evaluate the potential role of new shock-absorbing mechanisms;

iv) to design fiscal policy strategies that take into account the rules of the reinforced Stability and Growth Pact and other components of the EU economic governance;

v) to incorporate the key rules of the enhanced Economic governance into applied models that are used for practical fiscal policy evaluation;

vi) to investigate the institutional mechanisms for ensuring fiscal discipline, better fiscal policy coordination and how their legitimacy can be assured in the light of the growing disquiet about EU policies.

1.2 Explanation of the work carried out per WP

1.2.1 Work Package 1

CEPS measured fiscal spillovers in the EU countries empirically, using a so called structurally stable global vector autoregression (GVAR) model (D1.3). The aim was to look at the sign and the absolute values of fiscal spillovers in a country-wise perspective and at the time profile (impulse response) of the impacts of fiscal shocks. For this purpose, a distinction was made between the spillovers of fiscal shocks in specific EMU member countries and the spillovers of "regional" shocks, i.e. area-wide shocks to fiscal policy. One interesting result is that fiscal spillovers of a Euro area-wide fiscal shock are stronger within the EMU than in the rest of Europe. This represents indirect evidence of the effects of a common monetary policy in the Euro area. This research contributes mainly to objective ii).

CEPS developed a two-country behavioral macroeconomic model in a monetary union setting to explain why the business cycles among Eurozone countries are so highly correlated (D1.4). In the model, the net export of country 1 depends on the output gap of country 2 and on real exchange rate movements. The synchronization of the business cycle is produced endogenously. The main channel of synchronization occurs through a propagation of "animal spirits", i.e. waves of optimism and pessimism that become correlated internationally. It turn out that this propagation occurs with relatively low levels of trade integration. The degree of output synchronization is very much influenced by the intensity with which the central bank stabilizes output. When that intensity is high, the central bank is able to tame the animal spirits. In so doing it reduces the propagation dynamics. This research contributes mainly to objective ii).

IHS research planned in WP1 has been completed and its results presented in deliverable D1.6. Summing up, the existing single-country overlapping generations model has been extended to a multi-country version covering 14 European Union countries. The model has been used to quantify cross-country spillovers of symmetric and asymmetric shocks as well as fiscal policy reforms in normal times and during crisis times. It has also been used to compare the impact of some fiscal policy coordination rules. This research supports achievement of objectives i) and ii).

1.2.2 Work package 2

NIESR used the National Institute Global Econometric Model (NiGEM) to quantify the magnitude of fiscal multipliers in each Euro Area country (D2.3). It was found that fiscal multipliers are usually below one when countries implement fiscal policies in isolation. By contrast, multipliers increase significantly, on average by 50 to a 100 per cent depending on the fiscal instrument, when there is international coordination of fiscal policies. The analysis also suggests that fiscal multipliers arising from government spending measures are larger than those arising from changes in taxation. These estimates correlate with the degree of openness to trade of each country. Fiscal multipliers also increase with the proportion of liquidity constrained agent. This research supports achievement of objectives i) and ii).

IER SAS completed its analysis of the Macroeconomic Imbalance Procedure (D2.5). The aim was to perform ex-post evaluation of the crisis prediction ability of the Macroeconomic Imbalance Procedure Scoreboard's headline and auxiliary indicators. The predictive power of the indicators was tested both separately and jointly as an early warning system. Individual predictive power was assessed by signalling approach, loss and utility functions and AUROC score. The predictive power of the indicators as an early warning system was tested by estimating limited dependent variable models. Also the impact of data revisions was examined. The results suggest that external sector indicators along with the new labour market indicators have the best prediction abilities. The results also suggest that if the Macroeconomic Imbalance Procedure had been employed as an early warning system before the recession in 2009, it would have provided moderately useful alerts in case of euro area countries. This research contributes to objective i).

ETLA has been developing a simulation model that will later be used to analyse how the uncertainty about the output-gap and structural deficit could be taken into account when designing fiscal policies. This research contributes to objectives i), iv) and v).

1.2.3 Work package 3

CEPS considered fiscal risk-sharing and stabilization in the US and the euro area (EA). The starting point of the analysis is that the unemployment insurance (UI) system in the US is often portrayed as an effective tool to respond to idiosyncratic shocks and one that missing in the euro area. The results, presented in D3.3, provide empirical evidence that EA member states actually manage to provide a higher degree of output stabilisation (via government surpluses and deficits) than that provided by the US federal budget, which features inter-state fiscal risk-sharing. The paper also finds that the US UI system is mostly relevant as stabilisation mechanism in the face of US-wide shocks, rather than idiosyncratic shocks. This can be partly explained by highlighting the institutional features of the US UI system as well as the existence of market mechanisms for inter-state risk-sharing. Given the structural features of the EA economies and the lack of effective market mechanisms for risk-sharing, the US system would be unlikely to produce the same effects in the EA. This research contributes mainly to objective iii).

CEPS also reviewed to what extent the current EU budgetary tools provide a shock mitigation function and explored potential avenues to reform them so as to strengthen their stabilisation role (D3.4). It is argued that the current tools are ill-suited to address a situation of fiscal emergency when a member state has to react to shocks. Nevertheless, there is evidence of a growing mandate for a stabilisation function within the EU budget, developed particularly in response to labour market shocks. The Youth Employment Initiative and the European Globalisation Adjustment Fund, despite their modest results, represent a concrete step toward introducing shock mitigation among the objectives of EU expenditure. Flexibility arrangements introduced over recent years within the EU budget also move in the direction of adapting the EU budgetary architecture to make it better suited to medium-term ex post shock mitigation. Researcher propose an integrated approach to boost the responsiveness of the EU budget to unforeseen event throw the establishment of an EU fund for Employment and an extended mandate for the European Union Solidarity Fund. This research contributes mainly to objective iii).

IHS has developed a concrete concept for the evaluation of a centralized EMU fiscal capacity. The same model as in WP1 will later be used for the evaluation. Research results will contribute to objectives ii) and iii).

LUISS further developed a Two-Country Open-Economy New-Keynesian DSGE model of a Currency Union to study the effects of targeting net exports with respect to targeting output, and of consolidating government budget constraints across countries, for stabilization purposes. The results are presented in D3.2. The results suggest that government spending rule that targets net exports rather than domestic output produces more stable dynamics. With respect to taxation policy, taxes on labour income are exponentially more distortionary than taxes on firm sales. These results contribute to objective ii).

1.2.4 Work package 4

CEPS provided a literature review on the appropriate mix between monetary and fiscal policy together with a description of the actual policy mix in the US, the euro area and the UK between 2000 and 2015 (D4.2). The paper argues that the global financial crisis in 2008 represents a watershed in the policy mix debate. After the financial crises, monetary policy has been the most aggressive tool across countries. In a historical perspective, a key lesson is that the balance between fiscal and monetary policies cannot be set independently of the state of the economy. This research contributes to objective ii).

NIESR analysed the monetary and fiscal interaction in the European Monetary Union using their global econometric model, NiGEM (D4.3). Importantly, the analysis also covers unconventional monetary policies. With both binding fiscal constraints and short-term interest rates near the lower bound, monetary intervention in sovereign debt markets offers a channel by which to ease the monetary stance and simultaneously relax the fiscal budget constraint. The results also suggest that when only a subset of the monetary union is fiscally constrained, a domestic fiscal expansion by the remaining unconstrained members can provide a cross-country intra-union offset that makes all member states better off than they otherwise would be. This research contributes to objective ii).

NIESR also provided a review of the theoretical and empirical literature on macroprudential policies and tools and tested empirically the effectiveness of several macroprudential policies (D4.7). The results suggest that macroprudential polices are effective at curbing house price and credit growth, albeit some tools are more effective than others. These include, in particular, taxes on financial institutions and strict loan-to.value and debt-to-income ratio limits. This research contributes to objective iii).

LUISS extended a two-country DSGE model by allowing for a debt targeting shock. Specifically, it was assumed that the Eurozone periphery has to reduce its initial level of government-to-GDP ratio from 80% to the 60% target. Three deleveraging schemes were analyzed: i) Back loading: the desired share of reduction per period of the excess real government debt with respect to steady state increases over time; ii) Linear: the desired share of reduction per period of the excess real government debt with respect to steady state is constant, and iii) Front loading: the desired share of reduction per period of the excess real government debt with respect to steady state decreases over time.

The results (reported in D4.4) reveal the back loading scheme is the most stabilizing scheme. That is, reducing government debt more gradually over time reduces overall volatility in the economy. In presence of the zero lower bound on the policy rate, deflationary pressures are stronger in both countries, because the Central Bank cannot further reduce the interest rate against deflation, and this brings to higher volatility in the terms of trade and in net exports. The best instrument for deleveraging are distortionary taxes in all fiscal policy scenarios, because they counteract the deflationary effect of the deleveraging shock more than other instruments. This research contributes to objective ii).

1.2.5 Work package 5

IHS has extended the multi-country model developed in WP1 to include the effect of population aging. The first simulations to quantify the spillover effects of cross-country differences in the speed of population aging are underway. Also underway are simulations to quantify spillover effects of particular pension reforms. This research contributes to objectives ii) and iii).

ETLA has further developed its overlapping generations model with stochastic demographics and labour productivity. This model will later be used to analyse the design fiscal policy strategies that take into account the EU fiscal rules. This research contributes to objective iv) and v).

1.2.6 Work package 6

LSE completed three deliverables, as part of the research conducted under WP6 during the reporting period. The first of these (D6.2) was the comparative paper on how fiscal rules are being interpreted in the Member States and the implications for fiscal policy coordination. This paper was accompanied by a policy brief (D6.3). Among the key messages from these two deliverables was that there had been considerable pressure from the EU level of governance to adopt more and better fiscal rules, and a substantial increase in the number of numerical rules adopted. There is less conclusive evidence on what has resulted from these rules, with some progress in reducing deficits, but little on improving public debt.

The paper and the policy brief draw attention to a number of shortcomings in how rules have been implemented. Building on this finding, the third deliverable (D6.4) looked in much more detail at the implementation of rules using data derived from various indicators, the outcome of monitoring process and the reports of national fiscal councils. The paper found continuing problems of implementation of numerical rules, raising doubts about future commitments to numerical rules as a means of governance of fiscal policy, as well as for similar rule-based processes at EU level, such as those governing macroeconomic imbalances. This paper was published in the *National Institute Economic Review* as part of the special issue containing other FIRSTRUN project papers (see section 1.2.7).

As a part of D6.5, LSE, CASE, LUISS and IER SAS completed the preparation of in-depth case studies of the national implementation of coordinating mechanisms. These were conducted on the basis of common guidelines and a questionnaire developed by the contributors to the deliverable with some direction from LSE. In the course of researching these studies, there was engagement with a number of stakeholders.

The research in this WP is about understanding how to assure the legitimacy of institutional mechanisms needed for effective fiscal coordination. It is thus part of our work towards achieving objective vi).

1.2.7 Work package 7

CEPS organized a workshop, titled **“**E(M)U governance: From policy coordination to resource centralization?”, in Brussels on 26 September 2016. The seminar included presentations by the consortium as well as senior experts from the European Commission. (For details of our workshops and seminars, see http://www.firstrun.eu/category/events/.)

LUISS organized a seminar on “Fiscal policy coordination and risk-sharing in the EMU” on11 of November 2016 in Rome. The workshop was designed to stimulate the debate on the topics of the project and included three presentations from speakers participating in the FIRSTRUN project and three invited speakers not from the project, who are working on topics related to the FIRSTRUN project, within a partner European project (ADEMU) or in international institutions. The discussion was enriched by the papers’ discussants selected both inside and outside the project and by the academic audience.

CASE organized a seminar on “Fiscal Adjustment and Stabilization Policies in the EU” on March 24. (The seminar took place after the reporting period. However, most of the arrangements were done during the reporting period.) During the workshop in Warsaw, members of the consortium and invited guests presented the findings of their research papers which examined the importance of fiscal policy spillovers and the gains from fiscal policy coordination in the EU. Each presentation was followed by a discussion and comments from the participants of the workshop: members of the consortium and stakeholders from Polish governmental bodies.

We published four articles (including an introductory article) in *National Institute Economic Review (vol 239, issue 1, February* 2017), which is a widely-read academic journal focusing on policy oriented economic research. The articles are the following:

Simon Kirby (NIESR): Economic Policy and Surveillance in Europe: Introduction.

Iain Begg (LSE): Fiscal and Other Rules in EU Economic Governance: Helpful, Largely Irrelevant or Unenforceable?

Tero Kuusi (ETLA): Does the Structural Budget Balance Guide Fiscal Policy Pro-Cyclically? Evidence from the Finnish Great Depression of the 1990s.

Tomáš Domonkos, Filip Ostrihoň, Ivana Šikulová, Mária Širaňová (IER SAS): Analysing the Relevance of the MIP Scoreboard’s Indicators.

Paul De Grauwe (CEPS, LSE) and Yuemei Ji, published a VoxEU column “Synchronization of Business Cycles: An Endogenous Explanation”, VoxEU, 16 June, 2016, http://voxeu.org/article/synchronisation-business-cycles.

Paul De Grauwe (CEPS, LSE) and Yuemei Ji published the article “The International Synchronization of Business Cycles: The Role of Animal Spirits” in *Open Economies Review*, 2017, open access at Springerlink.com.

Iain Begg (LSE) wrote two blog-posts for the UK in a changing Europe (http://ukandeu.ac.uk/): “Spreadsheet Phil no More” and “Eurozone economic governance in disarray?”.

Iain Begg (LSE) published a blog post for the NIESR website: “EU governance: do the rules work?”. Available at: http://www.niesr.ac.uk/blog/eu-economic-governance-do-rules-work#.WOzecvkrKUk

Thomas Davoine (IHS) presented research related to IHS’s contribution in WP1 at a workshop at the University of Strathclyde, Glasgow (16 March 2017).

Filip Ostrihoň (IER SAS) presented research related to IER SAS’s contribution in WP2 at the International Conference on Economic Modeling. Lisbon, Portugal (6-8 July 2016).

Mária Širaňová (IER SAS) presented research related to IER SAS’s contribution in WP2 at the conference organized by CASE: The Future of Europe: Central and Eastern Europe in a comparative perspective, Warsaw (17-18 November 2016).

Tomáš Domonkos (IER SAS) presented research related to IER SAS’s contribution in WP2 at the INFER Workshop on European Integration in the Aftermath of Debt Crisis, Bratislava (11-12 March 2016).

Tomáš Domonkos (IER SAS) presented research related to IER SAS’s contribution in WP2 at the National Bank of Slovakia, Bratislava (18 August 2016).

LUISS presented a paper, entitled “One EMU Fiscal Policy for the EURO” and delivered in August 2016, at the 12th Dynare Conference held at the Bank of Italy on September 29-30, 2016. The paper has also been published in April 2016 as a CeLEG Working Paper, n. 02/16.

NIESR presented a paper entitled “Macroprudential reaction functions in NiGEM”, (based on work for D.6) at the February 2017 NiGEM Policymakers’ Seminar, at NIESR. This provided the opportunity to present FIRSTRUN work to policymakers from across Europe.

Iain Begg (LSE was invited in mid-January 2017 by the European Court of Auditors (ECA) in Luxembourg to take part in an expert consultation on EU economic governance, focusing on the European semester and on the macroeconomic imbalances procedure. This afforded the opportunity to bring *Firstrun* work to the attention both of the staff of the ECA and to other stakeholders involved in the consultation.

1.2.8 Work package 8

The coordination team at ETLA was responsible for the day-to-day management of the FIRSTRUN project. The project coordinator planned the FIRSTRUN seminars and stakeholder meetings together with CEPS, LUISS and CASE. Most of the FIRSTRUN events are arranged by CEPS since it is well connected with many of our key stakeholders at the EU level.

An important aim of this work package is to make sure that we come up with a clear synthesis of the main results in different WPs. As an example, our recommendations that are based on purely economic analysis in WPs 1-5, need to be complemented with the insights from WP 6, which studies issues related to legitimacy as well as the practical implementation of fiscal policy coordination in the EU. To this end, we will substantially increase our coordination efforts during the third year of the project. For instance, we will have an internal project meeting devoted to discussing policy conclusions.

1.3 Impact

The information on section 2.1 of the DoA (how the project will contribute to the expected impacts) is still relevant and does not need to be updated.