CBR
COUNCIL FOR BUDGET RESPONSIBILITY

4th Meeting of the Advisory Panel

Minutes
October 5th, 2018

Advisory Panel Meeting

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Venue: National Bank of Slovakia, Imricha Karvaša 1, 30th floor, Bank Board Meeting Room

Advisory Panel Members Present: George Kopits, Kevin Page, Jeromin Zettelmeyer
CBR Members Present: Ivan Šramko, Anetta Čaplánová, Juraj Kotian
Network of EUIFIs: Michal Horváth
Secretariat of the CBR: Viktor Novysedlák (Executive Director) and Members of the Technical Staff of CBR;
Invited guests: Ľudovít Ódor

Apologies: Simon Wren – Lewis, Daniele Franco

Session: News, Observations & Challenges

Presented by: Ivan Šramko
Chaired by: Anetta Čaplánová

Ms. Čaplánová welcomed all guests, especially a new advisors board member Jeromin Zettelmeyer, and apologized on behalf of the absent ones. After having delivered introductory speech, she gave floor to Ivan Šramko who was to make known CBR´s news over last two years and CBR´s current challenges.

Ivan Šramko broke up his presentation into 4 main parts: *Events; Publications overview; Communication and Challenges.*

Firstly, he introduced examples of *conferences and events organized by CBR on Fiscal Policy and Tax Policy*. He pinpointed OBR/CBR joint seminary and a special session for Slovak Economic Association Meeting 2017/2018. He secondly spoke of *contributions to conferences and seminars by members of CBR* in Slovakia and abroad (Germany, Italy, the Czech Republic). The contribution covered not only lectures (e.g. on long-term sustainability of public finance, on economic and monetary policy, on expected development of the Slovak economy, on fiscal policy in EU and its future, on Future of the Debt Brake, on long-term sustainability of public finance, on fiscal framework in EU, on Fiscal Governance in the Eurozone, on Macroeconomic Modelling, etc.), but also microsimulation tools SIMTASK and what_if as well as Optimal debt and Extended fiscal limits. Moreover, CBR members and executive director gave lectures or workshops at different economic universities in Slovakia.

Ivan Šramko concluded with EU IFIs, he stated that CBR keeps strong ties with the leadership of the Network. Tenure of Ľudovít Ódor as the Network Deputy ended in 2017, Michal Horváth currently holds the position of Permanent Secretary to the Network. Members of CBR as well as the analysts attended and contributed to several events organized by EU IFIs: on Structural Balance (February 2017 in Helsinki, Finland), presenting the CBR tool "SIMTASK" (May 2018 in

Rome, Italy), at meeting of working group on Output Gap (September 2018 in Vilnius, Lithuania). Next meeting takes place in Bratislava (November 23, 2018).

Ivan Šramko briefly commented on relations with the Parliament - saying that CBR submits to the Parliament the Report on Compliance with the Fiscal Responsibility and Fiscal Transparency Rules, as well as Presentation for the Financial and Budgetary Committee and for general assembly of the National Council. However, the communication is rather restrained and thus quite challenging.

In the publication overview, Ivan Šramko spoke of the ones mandated by the Fiscal Responsibility Act (19) and other laws (4). Among other published output one can count Discussion papers (3); Working papers (3); Analytical commentaries (5); Macroeconomic commentaries (2). He continued with examples of CBR Presentations: appearances and active contribution of CBR members on seminars, workshops organized by fin. institutions, universities, associations of entrepreneurs, etc., in sum more than 15. He added number of TV Appearances (15+) and Facebook posts (80), incl. advertising of publications, educational post series "Did you know, that..."

In the Communication part Ivan Šramko introduced number of Blog articles (19), websites Debt brake and SIMTASK while explaining that SIMTASK is the microsimulation model developed by the analysts of the CBR and used to evaluate the static effects of legislative (parametric) changes in the Slovak tax and transfer system. The website allows public users to use the model and simulate their own reforms.

Ivan Šramko subsequently spoke of feedback on CBR outputs, giving an example of Fiscal Compact with different conclusions of CBR and Ministry of Finance) in the final 2015 assessment (Dec 2016). Ministry of Finance (MoF) improperly applied the comply-or-explain principle, mainly questioning CBR approach. CBR wrote an official letter to the MoF objecting focus and content of the comply-or-explain document, a meeting ensued.

Ivan Šramko gave an example of Evaluation of the 2016 fiscal outcomes. They were met with relatively broad media coverage. Messages were taken by some of MP´s (windfall revenues, weaknesses of the fiscal framework, reserves used to finance expenditures outside of their budgeted purpose). He used alternative example of Fiscal Sustainability Report in 2017, where balanced finance sustainability got relatively broad media coverage, with Fiscal Sustainability Report frequently being referred to by the government.

Ivan Šramko continued the communication part of his presentation by Reported worsening of public finance sustainability (April 2018), which indicated year-on-year deterioration of the long-term sustainability of public finance in Slovakia; the change was driven by consolidation effort smaller than expected in the NPC scenario. The result received broad coverage by the media; message went contrary to a widely publicized achievement of the all-time low value of the headline government deficit in 2017. MoF again responded with questioning of CBR expertise. Members of CBR presented and explained the results via multiple media appearances.

Another important topic discussed in 2017 was investment exemption from the debt brake, proposal raised by MPs from the largest government party, motivated by slow progress of highway construction (attributed to shortage of funds).
CBR published detailed opinion on this change including formal arguments contradicting claims of supporters. Broader media coverage was given especially to quantification of (large) fiscal space available in an NPC scenario. Members of CBR presented the position in multiple TV appearances, attended a panel discussion with high public officials (organized by the business newspaper Trend). As an outcome the Parliament demanded (in September 2017) Ministry of Finance to prepare formal amendment, no action has been (publicly) taken since then.

Ivan Šramko introduced constitutional cap on the retirement age as an actual communication issue. MPs from the largest government party proposed to cap the retirement age at age 64 (63 for women with children). Change is motivated by recent (automatic) rise in the retirement age linked to increases in the life expectancy index. CBR published opinion on this proposal further reinforced by a detailed analytical commentary by the Secretariat of CBR ("Myths & Facts" format). The opinion targets directly statements of politicians; no backslash (e.g. questioning of CBR credibility) has been observed yet. Chair of CBR presented the position in multiple TV appearances. At the time of Advisory Panel, the Bill was debated in the Parliament, already passed the first reading vote (process consists of three readings).

Ivan Šramko finished his presentation by stating CBR challenges. He called for increasing efficiency of communication, alongside facing challenges of social media management of tasks vis-à-vis constraints on human resources; furthermore, he expects debate to specify the role of national IFIs within the EU fiscal framework.

In the subsequent discussion George Kopits inquired whether was Ivan Šramko pleased with the CBR staff size and finance, whether CBR is secure with the budget. He received an affirmative answer for the later, while new staff members are still needed. Jeromin Zettelmeyer was interested in CBR´s role in the law-making process, which is not as crucial as in some other IFIs. Kevin Page was curious about CBR´s perception, because CBR is highly esteemed by other IFIs. The advisors strongly suggested stakeholder analysis.

Session: Macroeconomic forecasting

Presented by: Miroslav Kľúčik
Chaired by: Anetta Čaplánová
Lead discussant (apologized): Simon Wren-Lewis

The aim of the presentation was to show the progress in CBR's macroeconomic forecasting in relation to the planned two new outputs – monthly report on macroeconomic nowcasting and medium-term forecast publication.

Particularly, the role of the CBR with regards to monitoring of macroeconomic risk as a main risk for fiscal development was highlighted. Miroslav Kľúčik stressed the importance of nowcasting for tracking possible turning points of the economy and the potential impact of wrong initial conditions of macro-forecast on the budget such it was the case in 2009. CBR's mandate is to identify potential risks of fiscal projections, which can, among others, come from an outdated macroeconomic baseline. The main output of the planned monthly reports was presented, such as negative or positive risks associated with actual data vintages and the GDP nowcast. Moreover, it was mentioned that CBR uses additional nine models (GDP demand components, wages, inflation and employment). The ongoing research should focus on possible new data inputs into the individual models beyond the official published statistics concentrating on the latest information on the market.

Secondly, the CBR's medium-term forecasts evaluation was presented in the context of the recent survey of European independent fiscal institutions' practices in macroeconomic forecasting and its ex-post evaluation. The aim of the evaluation was to look at the forecasting toolkit, ex-post evaluation of the forecast in terms of standard forecasting accuracy statistics and in the context of uncertainties connected to forecasting of the Slovak economy. In the context of comparison of individual institutions' forecast there were no significant deviations of CBR forecast from actual values and simultaneously significant deviations from the Committee members' forecasts. However, the large bias of unemployment and inflation forecasts of all the institutions was discussed and some problems with forecasting of macroeconomic variables related to fiscal policy (public consumption and investment). Finally, it was emphasized that the CBR's own macroeconomic forecasts serve mainly to evaluate fiscal policy and to use the model as an instrument for medium-term macro-fiscal projections.

George Kopits asked what the purpose of CBR's own nowcasting models is and whether it is necessary to create own models given the capacity constraints. Secondly, if it is not possible to use the estimates of the National Bank of Slovakia. Further comments of George Kopits were devoted to the potential competitive disadvantage to other institutions with regards to data availability. Viktor Novysedlak replied that CBR's aim is not to hold the position of a competitor to the National Bank of Slovakia. The CBR uses the models only for its our own purposes, mainly to fill the gap between the actual development of the economy and the medium-term forecast. Viktor Novysedlak added that the National Bank currently publishes only the GDP aggregate nowcast, while the CBR has 10 different models. Miroslav Kľúčik commented that contrary to private banks and some public research institutions the CBR has access to anonymized large data sets of different character from ministries and their organizations, which may be a competitive advantage. Creation of new variables from large-scale databases is the next aim of utilizing the potential of CBR and refine the nowcasts given the crucial importance of nowcasting during potential turning-point of the economy.

Jeromin Zettelmeyer additionally asked about the number of time series used in the nowcasting models. Miroslav Kľúčik replied that over one thousand of time series were tested and currently each model contains about six final indicators. Jeromin Zettelmeyer pointed out the low number of observations (forecasts) when comparing the mid-term forecasts of CBR and other institutions and potential problems connected with it, such as highlighting a forecast bias that may be the result of recent macroeconomic shocks and not poor forecasting. Miroslav Kľúčik replied that the CBR would use larger available dataset when assessing the systematic forecasting error of the official national macroeconomic forecasts on which the budget is based (since 2008) and that a smaller sample was used because the CBR does produce its own macroeconomic forecast only since 2014.

Session: Budget nowcasting

Presented by: Pavol Majher
Chaired by: Anetta Čaplánová
Lead discussant: Kevin Page

Pavol Majher presented the Budgetary Traffic Lights framework as the CBR tool to forecast and communicate short-term fiscal risks. He started by relating the project to one of the key elements of CBR mandate as spelled out in the Fiscal Responsibility Act, namely performance of activities connected with monitoring and assessment of the public finance development. He furthermore highlighted its relevance within the Slovak fiscal framework, given that the government budget balance in recent years repeatedly fell short of declared fiscal targets.

The Budgetary Traffic Lights is a framework of CBR that evaluates and communicates fiscal stress in the short-term. The fiscal stress is defined in terms of deviation of a forecasted budget balance from the government target. Intuitively, the greater the negative expected deviation from the target, the higher the level of fiscal stress. The framework expresses these deviations using colors of the traffic lights, where green shows that stress is very low, yellow suggest the need for closer monitoring of the situation, and red indicates a serious deviation if no additional measures are taken.

Pavol Majher proceeded by describing the forecasting procedure used within this framework. The procedure consists of three steps. In the first step, data inputs are collected from various sources. The presenter highlighted importance of properly understanding the system of accounts for public finance to make use of information contained therein. He presented and briefly described two fundamental types of classifications that are the most relevant for our forecasting algorithm. Firstly, the Economic Classification of Budget Classification sorts economic transactions realized by public entities into detailed structure of revenues, expenditures and financial operations based on their underlying nature. Secondly, the source classification sorts data based on an underlying source of financing, e.g. national resources or EU funds. The fundamental source of data for the analysis are accounts of the State Treasury, which collect and report monthly and quarterly information about economic transactions realized by general government entities. Pavol Majher also noted, that input data need to be cleared off any potential one-offs and sample coverage issues that could bias projected outcomes.

In the second step of the forecasting procedure, the end-of-year values are projected for individual revenue and expenditure budgetary items. The presenter briefly described the method used to calculate projections, which requires labeling of individual time series as regular or non-regular based on a simple numerical rule. The notion of regularity in this context means similarity of in-year developments of the budgetary entries observed across years. Subsequently, projections for regular items are calculated based on developments recorded in previous years, while non-regular items are forecasted by a predefined rule that incorporates data from the Budget Information System. On top of these methods, CBR expert assessments are used to form projections for selected sections of the government budget, e.g. tax revenues, economic performance of municipalities, or expenditures in the healthcare sector.

In the third step, individual projections are aggregated and adjusted to comply with the ESA 2010 accounting standards. Adjustments in this step include accrual adjustment of some items (taxes, interest expenditures, etc.) and consolidation of transfers realized within the general government sector. The final output of the forecasting procedure is an estimate of the general government budget balance for the current year.

After describing the forecasting process, the presenter turned focus to a topic of communication of the projected outcomes. He started with introducing and describing a concept of the traffic lights as an easily understandable concept to communicate fiscal risk. Three traffic lights colors provide a suitable indicator to signal whether current fiscal developments are on track to meet the objectives, or the government will probably need to adopt new measures with possible welfare implications.

A crucial step when developing this communicating approach is to link magnitudes of projected deviations from the fiscal targets to different levels of fiscal risk and thus to individual traffic light colors. Pavol Majher noted that the measure of forecast uncertainty cannot be calculated by standard econometric concepts (e.g. confidence intervals), since underlying time series do not cover time horizon of a sufficient length and the final estimate is a composite of various projection methods with some being heuristic. The approach proposed in the project is to attach levels of fiscal risk to the magnitudes of forecasted deviations based on simple numerical thresholds expressed in percentages of GDP and kept constant throughout a year. Specifically, the current version of the framework assigns the value of 0% of

GDP to the threshold for the medium level of fiscal risk and the value of 0.5% of GDP to the high-risk threshold. These would be communicated as follows: if the budget balance is estimated at the level equal to or greater than a fiscal target, then we communicate the low level of risk and show the green color. The balance forecasted at a value below the target with the deviation less than 0.5% of GDP suggest the medium risk level. Finally, if the projected budget balance is less than the fiscal target and the difference is at least 0.5% of GDP, then the high level of risk is communicated.

Pavol Majher followed up with a discussion of this approach. He mentioned simplicity and easy communication as the main advantages of the proposal. On the other hand, tight and sometimes rigid link between the projections and the traffic light colors may lead to some unfavorable properties, such as frequent changes in an indicated color. Furthermore, the government possesses different tools to induce large changes to the balance at the end of the year, such as postponing investment projects or keeping expenditures reserves unused. Pavol Majher concluded that it is key to communicate projected outcome as the expected balance if government does not introduce new measures. At the same time, he highlighted ex-ante and ex-post transparency of exposition as the key feature of the CBR reports to maintain credibility.

Extensive structure of the framework enables to complement the headline outcomes with additional details characterizing the projections. The presenter named a few of these additional items, such as decomposition of the expected deviation based on the factors representing selected areas of the government budget or contributions of individual public entities. These complementary results facilitate increase in transparency of the communication tool.

Pavol Majher concluded the presentation with a list of next steps envisaged for the project. Firstly, the forecasting methodology should be improved by adding more advanced forecasting methods. This needs to be complemented by designing a suitable selection mechanism to increase precision of projections. Secondly, tools used within expert assessments need to be formalized and assessed in terms of their historical performance. Lastly, the medium-term horizon should be incorporated into the monitoring process to align with the current setup of the budgetary framework.

Kevin Page was the lead discussant. He started by highlighting importance of having broader perspective when dealing with individual policy issues. His impression is that CBR toolkit aimed at fiscal risk assessment (including the budgetary traffic light) has potential to provide precisely this broader perspective into the fiscal decision making. Therefore, he expressed his support to the project and encouraged to proceed with the proposed next steps, which he found to be logical given the current state of matters.

Subsequently, Kevin Page focused on communication, where he suggested to highlight in reports the topics and issues that are appealing to the public in order to gain broader recognition (e.g. selected spending items or taxes). Furthermore, he stressed the importance transparent exposition of the outcomes.

Jeromin Zettelmeyer brought to the forefront the issue of a structure of expected deviation. He argued that there are different ways of achieving "green" light (i.e. low fiscal risk), but these are not equally desirable. He stated in particular that it is preferable to have better than planned fiscal outcomes due to unexpected tax revenues relative to those driven by in-year cuts in expenditures. Furthermore, Jeromin Zettelmeyer expressed his concern of providing wrong incentives to the government, namely by stimulating overperformance by unrealistic budgeting. As an example, he mentioned his observation of revenue forecast being overly conservative in the budgetary process in Germany. He concluded by emphasizing clear communication as a crucial feature of the budgetary traffic light project.

Session: The evaluation of fiscal consolidation strategies at the CBR – progress report with special focus on validation and interpretation of simulations

Presented by: Zuzana Siebertová
Chaired by: Michal Horváth
Lead discussant (apologized): Daniele Franco

Zuzana Siebertová started her presentation by highlighting the progress that has been made during the past two years in the area of microsimulations at the CBR. The microsimulation team at the CBR has developed a unifying framework called *what_if* that can be used to assess short- and long-run effects of the fiscal consolidation strategies at the revenue as well as expenditure sides of government budget. The consolidation instruments that were considered are the policies intended to affect governments' primary revenues and spending. In particular, changes in direct and indirect taxation and in social transfers to households affect the aggregate economic performance, as well as income distribution and inequality.

Further development of the general equilibrium micro-macro *what_if* model included several issues. First, simulations of the value added tax paid by households and corporate income tax have been included to the framework. Second, the macro part of the model has been enlarged to the dynamic version. And finally, the procedure how to interpret the simulation results has been developed.

In a lively discussion, that started already during the presentation, the members of the Advisory Panel made numerous useful suggestions/observations.

- George Kopits stressed the importance of comprehensible explanation and communication of simulation results. He emphasized that when costings of policy measures are evaluated, all assumptions, limitations and caveats of the applied approach should be acknowledged appropriately. George Kopits also pointed out that the language of communication should be convenient for the general public and not considerably technical. George Kopits noted that corporate income tax is too complex and hard to simulate. Zuzana Siebertová made clear that effective tax rates were used. Michal Horváth and Ľudovít Ódor pointed out that corporate income tax is a kind of by-product in the model. Jeromin Zettelmeyer stated that including only firms with positive pre-tax profits in the tax base is what justifies the use of the effective income rate.

- Jeromin Zettelmeyer commented the approach of scaling simulated results to match the official statistics. The scaling coefficient for every instrument is computed as the ratio of the aggregate official statistics to the aggregate outcome from the model in the baseline. In his opinion scaling coefficient should be calibrated according to scenario. He mentioned that applying the aggregate approach might not be optimal if the reform scenario influences only a particular group (like high income individuals) and suggested a check for such cases. Jeromin Zettelmeyer expressed his conviction that a disaggregated and reform scenario specific approach of scaling the results would be more appropriate.

- Both Messrs. Kopits and Zettelmeyer stressed that sensitivity analysis of the simulation results would be beneficial, and they advised to compare the macro results obtained from the micro-macro *what_if* model with the results of macro models available in CBR (presented by Miroslav Kľúčik).

Finally, all members of the Advisory Panel applauded the work of the microsimulation team. In particular, they appreciated that models are used in practice (costing of reforms, on-line simulation tool with comprehensive graphics available to public and also that the results are published in academic journals (recently the paper on Evaluation of Fiscal Consolidation Strategies has been accepted for the publication in the International Journal of Microsimulation).

Session: **Communication Strategy**

Presented by: Juraj Kotian
Chaired by: Michal Horváth

Juraj Kotian deemed CBR´s rather difficult position as one of the key motivations to improve CBR´s communication strategy. Unlike other IFIs, CBR has in budgetary and legislation process no endorsement right, no veto right and no relevant role (e.g. gives no statement). CBR can only work indirectly, i.e. build reputation and popularize key messages. Advisory Panel 2014 determined communication to be crucial. However, mainly CBR´s outputs were being discussed (informing general public on fiscal rules, looking for the essential right communication strategy with the media and the public (budgetary traffic lights, „safe" level of debt, fiscal space review, tax burden, ...). However, Advisory Panel 2018 focuses mainly on means of communication and the shift from formal reports (official formal paper alongside press releases containing less formal, key messages), being an aim supported by the fact that vast majority of the young (18 – 44 years) gather news online, incl. social media.

Main goal is to make CBR´s expertise known broadly through previously not thoroughly discovered channels of communication, such as podcasts, videoblogs. or the personalization of communication by quoting board members etc. To sum up, CBR faces 4 core goal areas: to determine key stakeholders and to get key messages to them; to build brand awareness of CBR as highly respected institution; to generate public demand for reasonable steps in budget accountability; to increase public awareness of economic terms related to budgetary policy.

SWOT analysis showed expert content, good reputation and independence as CBR´s strengths; on the other hand low brand awareness, diverse target groups and technical language as weaknesses; while CBR´s unique mission, so far neglected online world and medial presence as opportunities and, finally, doubted expertise and possible change of the law that established CBR as threats.

Juraj Kotian continued by presenting Communication Strategy Principles, ranking Proactivity above all. It is so in order to have impact, to influence; to be heard and seen at the time of happening, not ex-post. Other principles include: Arguments that are and should always be based on expertise, such as robust calculations; Constructive dialogue; Simplification and Language understandability; Balance in serving both good and critical reports, that means not to be perceived as always complaining, but to speak up should opportunity to praise appear.

Juraj Kotian then introduced most recent example of CBR output on Retirement Age Bill. The Slovak Parliament submitted a constitutional Bill on retirement age ceiling, which should be at 64 years. 93 Parliament deputies voted for, Bill has passed to second reading (October 2018). The procedure requires 3 readings. CBR issued official statement as well as analysis (Myths and Facts) addressing main pro Bill arguments and giving contra arguments.

Juraj Kotian showed activities CBR had performed at the time of paper´s issue and suggested several options what could have been done in addressing every relevant group of stakeholders. For instance, in relations to experts, more space could have been offered to share knowledge and ideas (e.g. business breakfast, where mutual feedback may be given). To politicians and MPs (e.g. Budget Committee members) could have been sent The Charmain´s letter and materials per e-mail. Regarding the media, stage could have been set before release, by providing briefings with explanations on the paper (argument by argument or otherwise), performance in media could have been ensured (short interviews, summaries, pronounce key message of the paper). In relations to the public, (sponsored) simplified FB posts could have been published, similarly podcasts of Councils´ members, senior analysts or Series of educational short videos (1 argument per video; video duration max. 50 sec).

He posed a question what an advisor would do, whom would they tackle firstly and how.

Juraj Kotian continued by targeted key features, saying that CBR´s Language should be less formal and simplified, to be determined whether neutral or reactive (Myths and Facts analysis). The media presence should be shaped not only by press conferences and press releases incl. Council members quotes, but also through highlighting key messages (up to 3) and by informal briefings with paper´s interpretation and questions answered. CBR in social media world should be characterized by simple messages, more popular terms, popular formats (did you know?, quotes, short video spots). CBR´s web should be redesigned in a newspaper style - texts would be published online – so far, they are mainly available by downloading. The webpage should be full of interactive graphs and customizations, calculators and blog articles. The webpage should offer more education and explanation (FAQ, Q&A, ...) and be above all transparent.

He did not omit that desirable communication has its costs, and there must be a person to coordinate PR, web, social media, press releases. Juraj Kotian stressed the manifest necessity of

- media monitoring, simple yet effective
- advertisement, be it Facebook/Google/in print, all of them should be in pre-processed matter, equipped with charts, ...)
- Video content / Audio (Podcasts)

He suggested to measure CBR´s output by number of Parliament displays, quotations of CBR; by number of media articles, interviews, comments, press conferences, informal media briefings; by number of invitations to professional events, conferences, lectures, ... In case of online world is measuring rather simplified since webpage counts users, sessions, pages per session, bounce rate, downloads. Facebook likes, posts reach, posts engagement, CTR (click-through-rate) and CPE (cost per engagement) numbers are also easily found.

Juraj Kotian finished his presentation by posing question how to increase CBR´s impact and how to set priorities/focus in stakeholders and communication channels, as well as budget - Pay Outputs (print, online, social media).

Discussion ensued during lunch where the advisors agreed that stakeholders survey truly is necessary though only first step in the long run towards effective communication. Advisors identified four main stakeholders: public, experts, politicians, media. They communicated that CBR should determine actual stakeholders´state and to hire person(s) – could be a consultant, advisor - to create a follow up plan of effective communication to be later implemented. Alternatively, since CBR had similar consultation made before, to directly hire a person to conduct concrete steps. Juraj Kotian suggested this to be a subject of another Council of Budget Responsibility Meeting, in order to get decided on timeline and budget.

Session: Debt Sustainability

Presented by: Zuzana Múčka / Ľudovít Ódor
Chaired by: Juraj Kotian
Lead discussant: Jeromin Zettelmeyer

Zuzana Múčka and Ľudovít Ódor presented two papers in which they analyzed whether it makes sense for Slovakia to have a more restrictive fiscal framework than the Stability and Growth Pact. While the paper on sovereign default risk and debt limits provides a direct rationale for having a credible debt limit, the study on the optimal sovereign debt analyzes the consistency between the adopted constitutional debt brake and the theoretically implied optimal level of debt for Slovakia. Jeromin Zettelmeyer considered both papers excellent and well written, based on cutting edge techniques and carefully implemented.

Sovereign default risk and debt limits: Case of Slovakia

The paper on sovereign default risk and debt limits provides a domestic rational for fiscal rules that is distinct from the Euro area-level considerations and shows the consistency of the model-implied optimal debt limit with the actual one. Furthermore, it evaluates consumption-equivalent welfare gains resulting from the implementation of such a ceiling. A fiscal framework incorporating a debt ceiling solves the debt dilution problem: when a government issues new debt, it does not consider the loss it inflicts on existing creditors. Eventually it leads to over-borrowing and high-risk premiums on government bonds. But investors are aware of this negative externality and therefore are willing to buy sovereign debt only with a higher discount already in the current period (to cover higher losses in expectation). Credible fiscal anchors, which limit the borrowing of future governments might mitigate this problem and thus generate a welfare gain for the economy.

Calibration of a state-of-the art sovereign debt model with risky borrowing and long-term debt to Slovak data resulted in optimal debt ceiling at 48 percent of GDP. Introducing such a ceiling reduces average sovereign risk premiums compared to a no-rule economy by almost 50 basis points. Empirical estimates based on analyzing Slovak borrowing costs during the period of

2013-2016 suggest that the debt ceiling might have saved Slovakia 20-40 basis points in spreads. However, despite a significant drop in sovereign spreads, the corresponding welfare gain (and so the impact on private consumption and labor market) remains relatively small – only 1.36 percent attained approximately four years after the implementation.

Jeromin Zettelmeyer appreciated the authors' heroic effort to empirically validate the model despite serious data limitations. He pointed out that the empirical results may not be robust to the choice of the time window (as authors compare spreads during 2009-2011 with spreads during 2013-2016, ignoring the most turbulent period on markets). Whether one takes the results seriously or not depends on the assumption that it took a while for the implementation of the Fiscal Responsibility Act to be fully reflected in spreads.

Furthermore, Jeromin Zettelmeyer commented that the synthetic control method might be conducted on a wider international sample of countries and not just on euro area peers.

Optimal sovereign debt: Case of Slovakia

This study exploits the trade-off between government debt as an asset that can be used for self-insurance against idiosyncratic income shocks and the distortions on labor and capital supply created by taxes needed to finance debt. In deriving optimal debt level, the paper explicitly considers a trade-off between the pain of fiscal adjustment (assuming that the current debt ratio is above the steady state optimal one) and the gain from reaching the ideal steady state level. To determine the optimal quantity of public debt the study uses a heterogeneous agent closed-economy model with incomplete insurance markets and endogenous labour supply. Furthermore, the model is enriched by welfare-increasing government activity via by productive government investment and provision of public goods.

The modelling framework with uninsurable idiosyncratic productivity shocks, the degree of inequality implied by the model and restricted borrowing give rise to non-trivial effects of public debt on the economy. On the one hand, higher public debt can relax borrowing constraints of households by increasing liquidity and thus facilitating consumption-smoothing. On the other hand, rising public debt crowds out private investments and therefore lowers wages and consumption in equilibrium. Therefore, a priori it is not clear which effect is stronger. The optimal public debt is determined based on welfare comparison between stationary equilibria when transitional dynamics are either ignored or accounted for.

The paper shows that public investments play an important role as they generate positive spillover effects in the private sector by boosting the productivity of labor and capital. This reduces the precautionary savings motives for households, as they can rely more on labor income. Transitionary welfare effects work differently. Reduction in public debt leads to a reduction of the tax rate in the long run. However, debt reduction requires an increase in the tax rate in the short run, which has a negative effect on welfare. Therefore, ignoring these adjustment costs, optimal debt levels would be very large and negative (government accumulates assets of 130 percent of GDP) accompanied with large welfare gains (more than 20 percent) which is fully consistent with the literature on optimal public debt (Chatterjee et al. (2017), Rohrs and Winter (2017), Aiyagari and McGrattan (1998)). However, with transitional dynamics considered, the optimal debt ratio remains positive but lower than the current level of debt (27-30 percent of GDP). The corresponding consumption-equivalent welfare gains are low, between 1.91 and 2.27 percent depending on the presence of public investment. Relatively low optimal debt level is due to low level of idiosyncratic labor income volatility as a result of low empirical wealth inequality. Hence self-insurance via private capital is more than enough and higher provision of government insurance via sovereign bonds is not necessary.

The only reason why Slovakia should have public debt at all in this model is that it is painful to get rid of the existing debt. The validity of results is supported by numerous robustness check exercises: change to model calibration, different policy rule, modified tax system, impact of public goods provision on household social welfare.

Jeromin Zettelmeyer remarked that the Slovak debt ceiling clearly passes a minimalistic test in the sense that a state-of the art model, realistically calibrated to Slovak data, implies optimal debt levels consistent with the ceiling. Furthermore, he pointed out that robustness checks produce a relatively wide variation in optimal debt levels, from 25 percent to 45 percent.

Furthermore, Jeromin Zettelmeyer suggested several potential extensions to the modelling framework that could make the estimations of the optimal debt level more robust. Firstly, accounting for open-economy framework might remove the main welfare argument for Slovak public debt, the public insurance function, and so possibly lead to lower optimal debt level. On the other hand, introducing aggregate shocks can increase the importance of the insurance function. However, in the open-economy framework the possible impact of this channel is mitigated. Unfortunately, although incorporating aggregate shocks to the model is not a problem technically, the credibility of the estimation procedure would suffer due to serious lack of data. Finally, Jeromin Zettelmeyer advised to perform various simulations of different fiscal policy reforms that would not be limited to a certain tax reform design. He mentioned that allowing the government to optimize might reduce adjustment (transitional) costs and the optimal debt level even more.

During the general discussion the issue of rapid population ageing in Slovakia was raised, which calls for more prudent levels of public debt.

Session: How could the Stability and Growth Pact be simplified?

Presented by: George Kopits
Chaired by: Juraj Kotian

George Kopits presented his recent paper discussing three options of Stability and Growth Pact simplification. The main weakness of the current rules is their complexity which justifies the reform proposals. Proposed changes focus on maintaining and regaining sustainability while keeping the Maastricht reference values for deficit and debt. Financial sanctions related to non-compliance with the rules should be repealed (due to pro-cyclicality and failure to impose them) and replaced with market-based incentives (risk premia, junior bonds). The no-bailout principle should be reaffirmed.

In the first option, George Kopits proposed partial consolidation of the current rules. Structural balance and the debt reductions targets should be replaced with a debt-stabilizing (reducing) primary surplus target. The expenditure benchmark should be kept and exemptions streamlined.

The second option involves replacing the existing rules (structural balance, expenditure benchmark, debt reduction requirement) with one operational debt rule. There would be a single rule setting a limit on the discretionary part of the budget derived from a debt reduction target (3 years in advance). The rule would allow flexibility via operation of automatic stabilizers. At the same time, by focusing on the discretionary budget the accountability of the government would be strengthened.

The third option is a market-based approach. The fiscal rules could be home-grown and financial markets would have disciplining effect. As a prerequisite, the no-bailout provision should be unequivocally applied. Fiscal compact and independent fiscal institutions might be helpful in this approach.

Session: **Expenditure Ceilings**

Presented by: Viktor Novysedlák
Chaired by: Juraj Kotian
Lead discussant: George Kopits

Viktor Novysedlak started his presentation by stating the Slovak budgeting practice would significantly benefit from implementation multiple-year binding expenditure ceilings. The ceiling would reinforce medium term budget planning, that being a belief supported by broader academic literature and international institutions.

He subsequently spoke of main features of expenditure ceilings proposed by the Ministry of Finance, to sum up, there were three of them.

First, numerical formulation and link to the fiscal targets (Main fiscal anchor, required trajectory towards fiscal anchor, planning horizon, etc.). Secondly, coverage by items and sectors and the level of detail, thirdly tools to absorb uncertainties in the medium-term planning/forecast (Contingency and planning margin, Carry-over allowances, Escape clauses).

Apart from setting the medium-term budgetary objective leading to long-term sustainability, preferably linked to national fiscal responsibility act (sustainability indicator), it is proper to establish also the minimum rules defining the trajectory of the structural balance. Viktor Novysedlák communicated that it is recommended to relate the minimum trajectory to European fiscal rules. The main drawback of this approach is that following the minimum requirements of the European fiscal rules might not be sufficient to achieve long-term fiscal sustainability.

The speaker told that 3 or 4-year horizon allows relatively precise estimation of basic tendencies in public finances, both revenues and expenditures.

Higher transparency is achieved, if expenditure ceilings are defined as the maximum public expenditure level in EUR (controllable, easier to communicate), however as such, defined in nominal terms, they are unresponsive to short-term inflation fluctuations, which could additionally strengthen transparency, stability and counter-cyclical nature of budget planning.

It was said that expenditure ceiling and its potential updates should stem from the forecast of structural revenues that abstract from temporary cyclical fluctuations in the economy and one-off and temporary factors.

Moreover, Viktor Novysedlák said that in order to strengthen prudent fiscal policy and prioritize expenditures, it is optimal to divide the aggregate expenditure ceiling into individual chapters at the ministerial level, ministerial ceilings improve stability, efficiency and responsibility.

In terms of contingency reserve as the main absorption tool for standard shocks, the speaker stressed that not all fiscal space under expenditure ceiling should be allocated ex-ante since there is need to provide fiscal space for uncertainties in forecast and planning. Contingency reserve (under ceilings) should be created to absorb forecast revisions whereas mainly real GDP and inflation forecast errors should form it. Another feature would be rising volume of the reserve to reflect rising uncertainty with time (from 1% of the exp. ceiling in T+1, up to 3 % in T+4). Unused contingency reserve becomes planning margin (e.g. financing of pending budgetary requests). Contingency reserve is continuously dissolved throughout the forecast period (in case the negative structural shocks do not materialize).

Access to reserve resources should follow transparent rules. The amount of unused reserve should always cover the risk level throughout the whole horizon, depending on the remaining duration of planned period.

Viktor Novysedlák said it was recommended to adopt prior decision regarding the purpose the reserve will be applied for, for the entire mandate, (funding of preconditioned / bound (saved) expenditures). The expenditure ceilings should enable transfers of expenditures within years, but only to a certain amount, e.g. maximum 1% of the total ceiling.

The speaker took the time to comment on escape clauses, too. In case of extreme and unexpected events, escape clauses are to be defined. These clauses should be listed exhaustively and would allow the modification of formerly determined ceilings. Extraordinary events related to public finance might occur once in a while and require quick reaction of the government.

The speaker introduced example of deep recessions, when expenditure limit can be changed during election term ad-hoc by government and approved by Parliament, however, subject to CBR's opinion. Further example, a bailout of banking sector or natural disasters which qualifies as one-off events, but subject to Parliament approval, however, also subject to CBR's opinion. It was clear, that the Council for Budget Responsibility could supervise the escape clauses and identification of one-off measures.

Regarding expenditure ceiling update, the speaker stated it would be appropriate to implement correction mechanism into set up of the expenditure ceilings. This mechanism should compensate positive and negative deviations observed when evaluating compliance with the expenditure ceilings. He firstly spoke of not automatic correction factors, update of expenditure ceilings should be based on recommendation by CBR. They cover cases as if the ceiling is not met or if the sustainability indicator changes due to reasons outside the scope of the government.

Viktor Novysedlák spoke, on the other hand, of the automatic updates, namely in-year (during the government term) updates could be related to adoption of new discretionary revenue measures, or to change in efficiency of tax collection (only ex-post) or to impact of measures affecting long-term sustainability or to change in definition of the GG and other statistical revisions.

The implementation of expenditure ceilings within management of the budget will require several procedural changes which probably cannot be performed within a rather short time horizon.

Viktor Novysedlák briefly commented on most significant implementation challenges, legislation being the first one. Relevant laws can be amended, for example: definition of expenditure limits, balanced budget objective, escape clauses, carry-overs. Even definition of specific roles for the Government (path towards MTO [in government´s manifesto]), the

Parliament (expenditure ceilings approval process [including updates]), the Council for Budget Responsibility (monitoring, assessment of compliance), the independent authority (items excluded from the ceilings, longer forecasts horizon, tax and non-tax revenues)

Second challenge might be macroeconomics, due to volatile economic cycle (real GDP, inflation) and reserve allocation (distinguishing between cyclical and structural shocks).

Thirdly, budget management can be challenging, given several facts. First being amendment of budgetary negotiation process (two-round process at ministerial level). Existing policies negotiations can interfere with new priorities negotiations. Another challenge might be strengthening of budgetary control over health insurance, infrastructure providers, etc. and last but not least, required real-time monitoring of relevant budget data.

Lastly, communication needs to finetune the explanation of the expenditure ceiling features.

Given the limited time frame, the advisors were kindly asked to send their comments ex post. George Kopits gave the following comments:

- Expenditure limits are the most amenable to control by decision-makers in real time. Hence, the usefulness of an annual nominal expenditure limit as a *binding* rule, in comparison to all other rules usually specified in structural terms and/or as a proportion of a macroeconomic variable, such as GDP, which may be treated rather as *indicative*. While in line with this principle, the definition and derivation of the expenditure limit for operational purposes seem broadly appropriate.

- The derivation of the expenditure ceiling from the public debt sustainability objective could be simplified and clarified. As a first step, a target annual primary surplus-GDP ratio can be derived from the difference between the average effective interest rate on government debt and potential or trend GDP growth rate, plus the required annual reduction in the debt ratio to reach the target debt ratio over a specified period of years. The actual target debt ratio is inevitably set at a rather arbitrary value, on the basis of (a) international experience on tolerance by financial markets (as reflected in sovereign risk premia), (b) long-term projection of factor productivity and population aging, and (c) reserves/adjustment for foreseeable and unforeseen natural, legal, financial risks. As a second step, the structural primary surplus ratio thus derived yields the desired limit on primary expenditure ratio; in turn, the nominal expenditure limit can be set by applying the official inflation target for each year over the medium term.

- The definition of the expenditure limit could be revised in several respects. First, the limit should be based on the expenditure level determined from a standard expenditure review preferably at the outset of each government cycle. Second, prior to setting the limit in nominal terms, the medium-term path of the limit should be specified as a ratio of the projected potential or trend GDP anchored to the expenditure level set at the beginning of the government cycle. Third, the exclusions from the expenditure limit are appropriate; however, capital expenditures should be included under the limit by creating a sufficient margin (besides the reserves for unusual large shocks) to accommodate such lumpy outlays, as anticipated in the medium-term projection. Fourth, the expenditure limit should include tax expenditures as well, so as to prevent granting for instance subsidies via tax relief instead of budgetary expenditures. Fifth, the institutional coverage should be as broad as possible, encompassing the entire general government, including local governments, insofar as debt sustainability is an overarching objective – ultimately the central government guarantees (whether implicitly or explicitly) all public sector liabilities.

- The oversight role of the CBR as regards government compliance with the expenditure ceilings could be strengthened on multiple fronts. First, the CBR should anticipate, alert, and prevent noncompliance with the expenditure limit on the basis of medium-term baseline (no-policy-change) projections, and encourage correction through timely fiscal adjustment measures. Second, the CBR should be able to call for activation of escape clauses in the event of unanticipated shocks, as specified, while preventing the proliferation of such clauses. In this regard, for suspension of the limit, a 12-percent point GDP contraction over a two-year period seems excessive, especially for Slovakia where potential GDP growth is significantly higher than for most Western European EU member countries; instead, a smaller contraction, of, say, 6 points should be sufficient to trigger the escape clause. Third, by the same token, the CBR could have an advisory/management function on the appropriate buildup or drawdown of budget reserves under the expenditure limit for the adoption of an active countercyclical stance. It would include real-time assessment of the cyclical position and determining the appropriate countercyclical stance beyond the effect of automatic stabilizers. In practice, the CBR would decide on the timing and the dimension of the reserves to be accumulated in case of a surge in economic activity or to be utilized during a severe recession. Fourth, any merit of sectoral or program-specific limits is far outweighed by the simplicity criterion of good practice which calls for an aggregate ceiling. And fifth, instead of focusing on the imposition of numerically graduated sanctions for noncompliance, the CBR should play an effective role in enforcing government accountability (namely, public explanation) for deviations from the limits and in helping implement a corrective path to return to the preassigned expenditure limits, when warranted.

Session: Work Programme for 2019/2020

Presented by: Juraj Kotian

Juraj Kotian set the goals of *governance, transparency* and of *communication*. Firstly, in terms of governance and transparency, the CBR aims to achieve OECD review of CBR (2019) and secondly to obtain documentations of models and assumptions underlying the CBR's outputs

He proposed to focus on projects:

1. Fiscal Space Review
2. Welfare Report
3. Macro-fiscal Policy
4. Costing

To elaborate each:

1. *Fiscal Space Review* is a key material that significantly broadens the view of long-term sustainability of public finances. Relatively extensive and analytically challenging even at the frequency once every 4 years. The publication itself must be preceded by the preparation of documents.

2. *Welfare Report*. Distributional effects of tax-benefit system, new material, the results of which would also be part of the Fiscal Space Review, at least partially. In particular, it would be a qualitative assessment of the level of social and health security provided so far and the identification of trends and potential risks for the future. Due to frequent legislative changes in this area and the lack of analysis, it is proposed to publish this material every two years.

3. *Macro-fiscal Policy*

    - Expenditure ceiling - discussion with Ministry of Finance is expected, a need to prepare an official opinion of the CBR, ceiling testing
    - Adequacy of MTO (EU Directive, expenditure ceiling) - important for the further direction of fiscal policy and setting the budget targets after having reached a balanced budget
    - Desirable fiscal stance reflecting economic cycle - creating opinion / recommendations what a fiscal policy should look like in relation to the current cyclical development of the economy
    - Windfall revenues (incl. effects of tax collection efficiency) - methodical material

- Change in GG balance versus Net worth - Net wealth played a very small role in the CBR´s analysis, which needs to be fundamentally changed. At the same time it is necessary to force the data acquirement from Ministry of Finance.

4. The quantification of legislative measures (costing) might deploy 1/3 of the capacities for 2-3 months in case of more complex tasks, which automatically has a direct impact on the fulfillment of the work plan and the preparation of the official outputs of the CBR, or the quantification of the measure itself is very prolonged. CBR need more staff in order to prevent both negative scenarios. However, costing should be done proactively, while carefully choosing what upon, selection based on arrangements being discussed.

Regarding communication, Juraj Kotian pinpointed approval of communication strategy and redesign of website which should be the main communication tool. He suggested new CBR´s outputs, new regular reports:

- Local governments (short and medium-term risk analysis)
- Health care system (short and medium-term risk analysis)
- Ex-post evaluation of tax revenue forecasts
- Ex-post evaluation of budget nowcasting

To conclude, the Advisors found CBR´s agenda rather challenging given the staff number and tasks´ variety. They advised to increase staff number. Alternatively, they suggested to determine only one focus project, e.g. Fiscal Space Review.

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