

**Evaluation Report of the
Center for Excellence in
Finance and Economic Research (CEFER)
at the Central Bank of Lithuania***

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Executive Summary

This report provides an external evaluation of the Bank of Lithuania's Center for Excellence in Finance and Economic Research (CEFER). The evaluation was conducted by the authors between October 2022 and February 2023. The evaluation period extends from the foundation of CEFER in 2015 until September 2022. The evaluation is based on data about CEFER's mandate, activities and outputs as provided by the Bank of Lithuania, on a series of interviews with multiple stakeholders, on the additional gathering of publicly available information about the Center and its staff, as well as some background analyses by the authors.

Part A of the report makes a backward-looking assessment of the performance of the Center against its mandate. Part B delivers the evaluators' ideas and recommendations on how the Center could be further developed going forward. This summary briefly lists the main findings and recommendations.

In **part A**, we find that CEFER has achieved remarkable success during its first seven years against the requirements of a large part of its mandate, especially considering the limited available resources. Its leaders and staff excelled in academic publications and research productivity, participation in international conferences and collaborations with universities and other research centers. It also advised a few Lithuanian government entities, which was highly appreciated by them. In so doing, it helped improve economic sciences in Lithuania, promoted high-level discussions of topical economic and financial issues and strengthened the image of the Bank of Lithuania, three key features of its mission.

Through courses, lectures, seminars, workshops, and presentations to the Board, CEFER made a significant effort to promote knowledge transfer of state-of-the-art research and analysis to the rest of the Bank of Lithuania. It also engaged in a few cross-departmental collaborations, thereby contributing to the applied research work of other units in the Bank. Nevertheless, we judge that the full potential of internal research collaborations is not yet exploited, and the focus on research work on central bank core functions could be sharpened. This would promise to further strengthen CEFER's contributions to quality decision-making by the Bank of Lithuania.

The recommendations made in **part B** derive from the assessment of part A and associated discussions with multiple stakeholders that CEFER should develop in two broad ways in the future: first, successes in academic research and teaching should be secured and, second, the way in which its mandate is implemented should be recalibrated toward somewhat more emphasis on research on the Bank's core policy functions, more contributions to the applied research needs of other departments and thereby more impact on its quality decision-making and better integration in the organization as a whole. The said recalibration would need to manage actively potential overlaps and underlaps with activities already performed in policy departments, whose research capacities seem quite diverse.

We believe that the suggested recalibration toward the Bank of Lithuania's core functions and internal research collaborations would require the following measures:

- further developing the Center's involvement with the Bank of Lithuania's Board, its interactions with top management and granting to its Director access to relevant policy discussions;
- developing economic models and research-based analytical tools and indicators that can be used by policy departments and some of which might be regularly published;
- setting priorities concerning the research orientation of CEFER's new hires toward central bank core functions; and
- gearing the format and style of internal communication by the Center about its findings more toward the broader economist community in the Bank.

To reconcile maintaining the current successes in research and teaching with a focus on central bank core functions and adequate integration of CEFER staff in the Bank, we recommend:

- hiring a new Director of CEFER with strong research credentials related to central banking and with skills for running internal projects for the development of research-based policy tools and models;
- rebalancing staff to increase the presence of more established researchers;
- completing the establishment of the nationwide Ph.D. program and maintaining the B.A. program with Vilnius University;
- the development of clearer and attractive career paths for CEFER (and other) researchers within the Bank to retain productive economists and appropriate representation of research skills and experience across different functions and hierarchy levels; and
- introducing a small number of targeted improvements in the research infrastructure, notably in the area of data and statistics.

The body of the report contains further details on these and a few more recommendations.

To achieve all this – in particular, the suggested recalibration of certain activities – reducing some existing activities and/or moderately increasing CEFER staff may be necessary (e.g. through reallocations within the Bank of Lithuania). The report outlines some ways how this could be done.

Introduction

The Center for Excellence in Finance and Economic Research (CEFER) is a research unit at the Central Bank of Lithuania founded in 2015. This report assesses CEFER's performance against its statutory objectives and functions during its first seven years (until September 2022) and provides recommendations for the Center's future development.

The particular design of CEFER by the Bank of Lithuania can be understood from two important developments in Lithuania, the adoption of the euro and challenges in modernizing the university system as part of the transition process toward a market economy. When the Bank of Lithuania joined the Eurosystem, most of its member central banks had already broadened, deepened and enhanced the quality of their research. Therefore, it seems natural for a new member to move in a similar direction, also integrate in this sense and establish an enhanced basis for policy discussions requiring analytical input.

CEFER was established as a relatively small and independent structural unit of the Bank, separate from other departments. While it is not unusual for central banks to create research departments separate from policy departments, CEFER is special because its mandate includes contributions to the development of economic and financial science in Lithuania, to other academic activities agreed upon with domestic universities, and even to educate the local public.

This broad mandate goes beyond the needs of central bank policymaking. It seems to reflect the desire to raise the level of economic and financial knowledge and discussions in the country. From a historical perspective, this would help overcome some long-standing issues faced by the Lithuanian university system, a legacy of the transition from a planned to a market economy (also present in other transition countries). In turn, the successful development of science and education in economics and finance would benefit the Bank of Lithuania by facilitating the communication of its policy objectives and actions. Over time, the Bank would also benefit in terms of its ability to recruit from a higher-quality workforce.

CEFER's activities are guided by a regulation issued by the Bank of Lithuania in 2015 (Order No V 2015/(1.7-260402)-02-), which defines (i) the mission, (ii) specific aims CEFER should pursue, and (iii) concrete functions and responsibilities.

The *mission statement* includes four long-term purposes:

- 1) to improve the quality of economic science in Lithuania;
- 2) to promote high-level discussions of topical academic issues in economics and finance;
- 3) to educate the public; and
- 4) to strengthen the image of the Bank of Lithuania as a centre of excellence in economics and finance.

In addition to the mission statement, there are four specific *aims* CEFER should pursue:

- 1) to become a centre of excellence in the production of high-quality applied analysis;
- 2) to carry out a wide range of economic and financial research;
- 3) to contribute to the quality decision-making necessary for the performance of the Bank of Lithuania's core functions; and
- 4) to publish in international research journals of the highest repute.

Finally, CEFER was assigned concrete *functions and responsibilities* regarding academic research and collaboration with domestic universities. Concerning academic research, it should:

- 1) seek to publish academic articles in top global journals in the fields of economics and finance;
- 2) collaborate with external research centers, universities and other institutions in joint research, participate in conferences and seminars, and present their work and published research papers;
- 3) contribute to the applied research work of other units of the Bank of Lithuania, and participate in discussions and joint projects related to economic and financial research.

Concerning the collaboration with domestic universities, CEFER should carry out academic activities based on bilateral agreements. Such agreements were initially signed with Vilnius University and later also with the Kaunas University of Technology.

Our report is structured as follows. Part A assesses how CEFER performed its functions and responsibilities and to what extent it achieved its aims and lived up to its mission. This part is structured along the functions and responsibilities outlined above. Part B presents our recommendations for the future development of CEFER. We divide them in three groups, one on contributions to central bank core functions and internal research collaborations, the second on securing existing successes in academic research and teaching and the third on activity trade-offs and resource implications. The Annex provides a summary of the evaluation terms established by the Bank of Lithuania.

To perform our review, we had access to several resources. First, we received detailed documentation about CEFER's mandate, activities, and output from the Bank of Lithuania. We complemented this information with additional details from the CEFER sub-pages on the Bank of Lithuania website and other online sources. Second, we interviewed key stakeholders – including representatives from Vilnius University, the Kaunas University of Technology, the Baltic Economic Association, the Government Strategic Analysis Center (STRATA), two policy departments at the Bank of Lithuania that are research active (Economics and Financial Stability), and CEFER staff. Third, we had an initial meeting with the Board of the Bank of Lithuania. Most meetings took place during a visit to the Bank of Lithuania in Vilnius in October 2022, but we also conducted selected follow-up interviews.¹

Before detailing our review, we note that other units in the Bank of Lithuania are active in research. For instance, staff in the Applied Macroeconomic Research Division of the Economics Department also produced some high-quality publications in the recent past. Other applied or more operational research is undertaken in the Systemic Risk Modelling Unit of the Financial Stability Department. Our mandate only includes assessing the activities of CEFER. However, we will make connections to activities performed in other units where applicable to the evaluation of the Center.

¹ We are grateful to all the people we met for their openness and for candid exchanges of views. We extend a special thanks to our contact person, Aurelija Proskute, for promptly and diligently procuring the information we requested.

Part A – Assessment of CEFER’s Past Performance

CEFER was founded in 2015. The initial team of researchers comprised three people. The team gradually grew to seven researchers, including the Director of CEFER. The current team consists of the (Acting) Director, two Principal Economists, and four Senior Economists (state September 2022). (This does not include occasional visitors to the Center.) While this may be regarded as small for the rather broad and ambitious mandate assigned to CEFER, Lithuania is one of the smaller countries in the euro area. Moreover, as mentioned above, additional researchers work in other departments of the Bank of Lithuania.

Since 2015, the Center has established itself as the leading and most prominent research hub in the Baltic states. It has also received recognition in the international research community, well beyond the Baltic states.

Research Papers and Publications (Function 1)

Between 2016 and 2021, CEFER’s members have published twenty-five papers in academic journals. Four publications rate in the top category of the [Chartered Association of Business Schools \(ABS\) ranking](#), and nine in the second highest category. (The ABS ranking includes four categories overall.) Given the relatively small number of researchers and the gradual build-up of the Center over time, this is a very good publication outcome. High-quality publications that are particularly worth mentioning appeared in the *European Economic Review* and the *Journal of Money, Credit and Banking* (both by Povilas Lastauskas), in *Labor Economics* (by Linas Tarasonis) and in *Quantitative Economics* (by Swapnil Singh).

The pipeline of working papers further cements the publication potential of the research group. Between 2016 and 2021, CEFER members published 42 working papers (including discussion papers and occasional papers), showcasing the high productivity rate of researchers in the group (in particular for academic research papers but also for more applied or policy-oriented papers, which constitute about one seventh of the total).

Overall, the quantity and quality of CEFER’s research output are unrivalled within the Baltic states. The Bank of Lithuania should be congratulated for this leadership within the region.

Collaboration with External Research Centers and Participation in the International Conference Circuit (Function 2)

CEFER staff has attained high visibility in the international research community. Every year, there are 20-30 presentations in international seminars, workshops, and conferences by CEFER members. Given the relatively small size of the group, the figure is remarkable and shows a strong commitment to emerging within the international research community. The average per-capita number of external presentations each year confirms the research productivity of CEFER staff.

CEFER also started research collaborations with Vilnius University (VU), through the [Center for Economic Expertise](#), and with the Kaunas University of Technology. These activities allow

the participating universities to attract research grants and improve the quality of their research output, thereby contributing to developing a research community with critical mass (see also missions 1 and 2). For example, the collaboration with VU shows measurable results: it created important positive spillovers, helping VU attract new researchers with Ph.D. degrees from leading universities. Joint activities included research collaboration, seminars, and the organization of an annual research workshop.

Collaboration with the external research community involves the Baltic Economic Association through editor and associate-editor appointments at the *Baltic Journal of Economics*, and cooperation with STRATA, a government center for strategic analysis. Although quite different in nature, both collaborations have led to important outputs. The former contributed to developing the research landscape and collaboration in the Baltic region; the latter provided research inputs into important policy dossiers for Lithuania. The one with STRATA appears to be particularly promising for the rich Lithuanian data it has access to.

The number of outreach activities that CEFER members engaged in is impressive and contributed to successfully fulfilling a key part of its mission, namely “to improve the quality of economic science in Lithuania.” It also provided a solid basis for informing the Bank of Lithuania about the most important developments in economic research.

Contribution to Applied Research with Other Units of the Bank of Lithuania and Other Joint Projects (Function 3)

CEFER contributed to broad research activities and analytical underpinnings within the Bank of Lithuania through the organization of conferences, invited lectures, courses given to Bank’s staff, and internal research seminars.

CEFER staff also engaged in a few collaborations with other Bank of Lithuania departments, where their policy activities would benefit from analytical inputs. One example was the creation of a new version of the Household Financial Monitoring System – a project driven by the Financial Stability Department (see the [2020 CEFER Insights](#), p. 12). Another example was the provision of various inputs into a [study](#) – by the Financial Stability Department (in collaboration with the Lithuanian Competition Council) – about the financing of small and medium-sized enterprises. A positive feature in internal engagement also included presentations by CEFER staff to the Bank of Lithuania Board. This high-level exposure to policymakers took place about once or twice a year and in 2022 – jointly with the Applied Macroeconomic Research Division – even three times.

At the level of the Eurosystem, CEFER made various contributions to the recent [Monetary Policy Strategy Review](#) and represented the Bank of Lithuania in the Monetary Policy Expert Group on Central Bank Digital Currency. Some outside stakeholders are particularly complimentary about CEFER inputs into and advice for a few Lithuanian policy dossiers beyond the strict realm of central banking. These include, for example, a joint project with STRATA on school consolidation policy (see [2020 CEFER Insights](#), p. 7), involvement in the establishment of the Independent Fiscal Institution (IFI, the Lithuanian “fiscal council”) and in

the preparation of some of its reports, and contributions to the [follow-up to the OECD-led evaluation of evidence-based policymaking](#) in Lithuania.

While the examples illustrate that CEFER performed applied research activities relevant to Bank of Lithuania policies, input to the applied research activities undertaken by the rest of the Bank of Lithuania could be made more systematic and communications about research results more designed for general economist staff. Without doing so, the full potential of achieving CEFER's aim number 3 – “to contribute to the quality decision-making necessary for the performance of the Bank of Lithuania's core function” – might not be reached.

Our conversations with different stakeholders suggest that various obstacles, some two-sided, may have limited such internal research collaborations or their contributions to the Bank's policies. Examples include management turnover, problems with joint planning, challenges with effective communication between CEFER and other departments, skill mismatch, resource shortages or rivalry under multiple pressures, lack of appreciation/usefulness of the newly acquired skills in the home department after the project, and incoherent performance evaluations between the sending and receiving sides.

Such obstacles are quite common in cross-departmental collaborations in policy institutions, and they are not necessarily specific to research collaborations. While they tend to be more pronounced in organizational models where research and policy units are separated, merging research and policy units presents its own challenges (e.g., maintaining research culture and high-quality standards, preserving the necessary research time etc.).

Academic Activities with Local Universities (Function 2)

Via its academic activities through agreements with domestic universities, CEFER contributed in a major way to raising the level of economic and financial education in Lithuania. It contributed to creating modern university degrees in economics and finance and made significant teaching contributions to these degree programs.

In 2018, CEFER created, together with Vilnius University, a bachelor's program in “Quantitative Economics”. Every year, CEFER members teach about ten courses in this selective three-year degree program. They also provide one-on-one mentoring and head the study program committee. This is a precious contribution, giving students a head-start on state-of-the-art economics education.

CEFER members also teach Ph.D. courses to doctoral students at Vilnius University and the Kaunas University of Technology, which represents another important activity. In addition, CEFER is in the process of creating a national Ph.D. program in Economics, which would involve the four largest public universities in Lithuania, following the Dutch Tinbergen model. This program's successful implementation will further enhance CEFER's contribution “to improve the quality of economics sciences in Lithuania” (mission 1).

Interim Conclusions

CEFER's achievements during its first seven years are remarkable, especially considering the available resources. Its leaders and staff excelled in fulfilling functions related to academic publications and research productivity, visibility in the international conference circuit, collaborations with universities (including teaching) and other research centers, and advising various government entities in Lithuania. In so doing, and in line with its mission and long-term aims, CEFER contributed to improving the quality of economic sciences in Lithuania and generated positive spillovers to the other Baltic countries. CEFER strengthened the image of the Bank of Lithuania as a centre of excellence for economic research and as a promoter of high-level discussions of topical academic issues in macroeconomics and financial economics.

Through courses, lectures, seminars, workshops, and presentations to the Board, CEFER made a significant effort to promote knowledge transfer of state-of-the-art research and analysis to the rest of the Bank of Lithuania. At the same time, the internal communication of research results could incorporate a stronger component designed for the broader economist community in the Bank of Lithuania. Moreover, our interviews with different internal stakeholders suggest that CEFER's analytical contributions to the Bank of Lithuania's core functions through collaborations and applied research could be further enhanced. While there are two sides to why the full potential for joint analytical projects and internal policy contributions may not have been exploited, we shall dedicate some of our recommendations in the next part to this issue. However, bringing CEFER to fulfil this aim at the next level may prove to be difficult with unchanged human resources in the Center, unless other CEFER activities are cut. Any resource implications would also need to be looked at from an overall perspective across the Bank of Lithuania, which is beyond the mandate for this report.

Finally, the establishment of the new national Ph.D. program is the last step in completing the early phase of the Center. Once the program is up and running and the first graduates leave the program, it will become easier for the Bank of Lithuania to hire highly qualified economists from the domestic universities involved. At the same time, the resources that CEFER can provide to economic education in Lithuania will likely reach its capacity limit, at least with the present staffing.

Part B – Recommendations for CEFER's Future Development

Against the background of its broad mandate, the first seven years of CEFER have been a considerable success. Considering Lithuania's situation at the time when CEFER was founded (see introduction) and given the spirit of its statutory mission and aims, it was natural to prioritize high academic research standards and international visibility, improving university education in economics and finance in Lithuania, further familiarising Bank of Lithuania staff with research of international standards and with new developments as well as to also assume a few policy contributions visible in the country at a broader political level (even beyond the central bank circles). These efforts quickly established a broad enough reputation for CEFER.

With the completion of the new national Ph.D. program, the deep foundations necessary for improving economic science and for inducing the related benefits for economic and financial policy discussions in Lithuania will have been laid. The full benefits of this major investment will gradually materialize over time. Hence, it is crucial to preserve and further consolidate the progress that has been made.

At the same time, the longer-term viability of CEFER as a central bank research entity will also depend on a strong enough integration with the Bank of Lithuania's core business. Fostering CEFER's applied research collaborations with other departments and its engagement in research-based policy advice appears to be a central ingredient for CEFER's future development. We thus recommend increasing the focus on academic and applied research that directly informs the Bank of Lithuania's statutory functions and medium-to-long-term priorities, particularly in the fields of monetary policy and financial stability. Such a recalibration of activities would improve CEFER's ability to collaborate with other units in the Bank (function 3 in the current mandate). It would also enhance CEFER's contribution to "the quality decision-making necessary for the performance of the Bank of Lithuania's core functions" (aim 3 in the mandate). The recalibration can be achieved without a change in the current mandate of the Center.

An important challenge for the suggested recalibration of activities and priorities is the rather small number of CEFER research economists (seven full-time equivalents, including the Director). Should the current staff level remain unchanged, such a recalibration would only be possible by reducing other activities. Alternatively, a moderate increase in CEFER headcount could be considered and/or various types of sharing agreements or collaborations with research units of other departments, even though one would have to be careful that this does not limit the intended integration effect for the Center. The overall human resource perspective for the Bank of Lithuania, which may require budget neutrality, is beyond the mandate of this report.

A second matter to be actively managed are potential overlaps and underlaps with research activities performed by policy departments. In fact, research resources seem to be rather diverse across departments in the Bank of Lithuania. For example, the Economics Department possesses with the Applied Macroeconomic Research Division a relatively sizeable research group, but the Financial Stability Department less so and other departments seem to have hardly any (academic) researchers (for example, the Banking and Insurance Supervision, the Financial Services and Markets Supervision, the Market Operations or the Market Infrastructure Department).

We describe our recommendations in detail below. We first discuss measures to enhance CEFER's contributions to the Bank of Lithuania's core business. In a second step, we suggest ways to preserve and consolidate the Center's past successes in academic research and university teaching. Finally, we turn to the issue of resource allocation and trade-offs.

Research on Central Bank Core Functions, Collaborations with Other Departments and the Eurosystem

- 1) Engagement with the Bank of Lithuania's Board, top management and in policy discussions

For the recalibrated orientation, it is even more important that the meetings between the Bank of Lithuania Board and the CEFER Director on the Center's priorities continue, at least on an annual basis. Apart from backward reporting and general planning, one key focus should be on identifying how the Center can most effectively contribute with research and research-based advice to "the quality decision-making necessary for the performance of the Bank of Lithuania's core functions", in line with CEFER's mandate (e.g. aim 3). This focus may also make the involvement of top managers from other departments useful, which we understand was (sometimes) also the case in the past. A key ingredient for the success of research units in central banks is that policymakers consistently demand and value that their deliberations are informed by the available state-of-the-art economic research on the topics on their agenda.²

We also recommend developing an approach to let CEFER's Director participate in the most relevant policy discussions. Such an approach would further enhance awareness about the Bank's needs and allow her or him to better feed relevant research results by the Center into the policy process. Over time, we would also expect material feedback from this measure on the relevance of CEFER's research output for the Bank.

- 2) Models, research-based tools, and indicators

To further ascertain the proposed recalibration, we envision selective inputs for policy processes by CEFER researchers, which leverage their expertise to develop and maintain research tools. The tools that they develop (potentially in collaboration or coordination with the main recipient departments) can then be used to provide answers to policy questions and regular inputs into policy discussions. It is important to note that this does not mean the regular involvement of CEFER researchers in briefings and policy preparations, which we do not propose. Such tools can take a variety of forms.

One possibility is that CEFER creates a state-of-the-art (macro or financial stability) model or certain indicators that other departments can regularly use as analytical input into policy work. CEFER could, for instance, focus on developing a business cycle model to address monetary-fiscal interactions in the Lithuanian economy, perhaps in liaison with the Economics Department. Alternatively, it could develop a model to assess the effectiveness and the macroeconomic implications of macroprudential policies in Lithuania, perhaps in liaison with the Financial Stability Department. (The relative balance between CEFER and the recipient department for post-development maintenance and running the model for policy purposes would have to be discussed between the two parties.) Such a model may also be publishable, bringing reputation gains to the Bank and the developing researchers.

CEFER might also develop and maintain a few research-based macroeconomic and financial stability indicators, some or all of which the Bank of Lithuania could also make

² Hartmann, P., and M. Kwast (2005), Managing financial research in central banks, [Central Banking](#), no. 15(4), pp. 73-79.

publicly available. This approach would bring additional visibility to the Center and may induce regular media coverage for the Bank of Lithuania at release times. One natural candidate could be a business cycle indicator that dates economic recessions in Lithuania. Another could be a novel indicator of systemic stress in the Lithuanian financial system.

We regard such steps as preferable to involving CEFER staff regularly in briefings and the internal policy process, as they are better aligned with research profiles and skills. Being fully aligned with the CEFER mandate, they also do not require a more problematic change in CEFER staffing away from high research standards toward generalist economics profiles. At the same time, these measures can significantly enhance the Center's internal involvement and visibility.

3) Research orientations of new hires

Given the relatively small size of CEFER in terms of headcount and the fact that the Center successfully managed to establish itself as a center of research excellence, it appears important that new hires possess research expertise that aligns well with central bank core functions. Such an alignment allows for channelling research expertise toward the Bank of Lithuania's core objectives and needs. Relevant profiles include particularly monetary policy research, business cycle analysis, and financial stability research. In line with the suggested recalibration, research output would then increasingly speak to issues that are central to the Bank of Lithuania's mandate, as opposed to wider economic policy issues in Lithuania.

4) Internal communication

To increase internal awareness about CEFER's research activities and its further uses within the Bank of Lithuania, we also recommend recalibrating internal communication about the Center's output and its policy implications. This can be achieved through various means, such as scheduling short non-technical presentations (e.g., over lunch) or circulating brief (e.g. 1-page) research insights or "flashes" via email or the intranet. It is important that these concise communication products focus on the most relevant research and are geared toward a broad audience of economists across the Bank and the time that staff in policy areas has available. We do not have a high frequency in mind; the products could rather be made dependent on the availability of particularly relevant papers or results.

5) Integration with Eurosystem/ESCB research

We further recommend that the Director of CEFER joins the Economics Department at the Eurosystem/European System of Central Banks (ESCB) Heads of Research meeting. This forum coordinates the research activities across euro area/EU central banks. Currently, the Bank of Lithuania is represented in this group by two managers from the Economics Department. Shared responsibility with Economics can further strengthen CEFER's integration within the Bank and the Eurosystem/ESCB.

Securing Existing Successes in Academic Research and Teaching for the Future

1) CEFER leadership and balance between junior and senior staff

To ensure that CEFER continues to thrive, it will be important to fill the currently vacant Director position with an established senior researcher with a strong scientific publication record, including in relevant central bank research areas. This seems paramount since the Director needs to provide guidance to the relatively young research team presently working at the Center. Moreover, the presence of such a personality would make the recruitment of high-calibre young economists with the right profiles easier. In addition, the new Director should have skills and experience in managing cross-departmental projects and be able to lead and guide the development of research-based tools in a policy institution.

If hiring an established researcher as the Director of CEFER proves difficult, the creation of regular senior visiting appointments, possibly on a long-term basis, and establishing senior scholar professorships in collaboration with local universities may provide an alternative for ensuring the presence of senior research experience in the Center.

Ensuring a good balance between junior staff, which is at the frontier of research, and more senior staff, who can serve as mentors and as a bridge to policymaking, is another key success factor for the CEFER's future development. While hiring should continue to be done predominantly on the junior market, CEFER could also envision attracting a few senior researchers who have positions abroad, perhaps through the creation of research advisory positions.

2) Career paths

The career path for CEFER researchers is, at present, somewhat limited, both within the Bank of Lithuania and within the university system. It appears important to spell out the long-term vision for the career development of CEFER researchers. This vision could be integrated into the general HR policies on managerial and expert career paths. Ultimately, it is in a central bank's interest that a certain percentage of researchers are represented in its core functions and at various hierarchy levels.

One possibility is to establish a career track system within CEFER that allows the most productive researchers to obtain teaching reductions while taking advisory roles in other departments of the Bank. This would further contribute to CEFER's integration (see the previous sub-section). Another possibility is to create career options in other departments of the Bank of Lithuania for CEFER members who do not fulfill the Center's high academic standards but are nevertheless productive policy economists.

To date, economists who left CEFER – both very successful researchers and less successful ones – did not integrate elsewhere in the Bank, resulting in an unfortunate “brain drain.” In other words, valuable talent has left the Bank of Lithuania and the country instead of finding attractive career options in the Bank or at local universities.

One option for reducing the hurdles of cross-departmental moves might be the introduction of a mobility program in which CEFER researchers have the option to spend a limited amount of time in a policy department and research-oriented economists from policy departments come for some time to CEFER. A six-month visit every three or four years could be helpful in this regard. It would also be important for CEFER economists to gain experience in a policy environment, while they should not be involved in regular briefings or policy preparations while staying at the Center, as we suggested above. Clearly, this initiative would need to be reconciled with the required teaching capacity that has to be present at the Center to meet the commitments in the B.A. and Ph.D. programs.

Finally, we suggest complementing the current monitoring and assessment of CEFER research output for performance management based on the ABS journal ranking and recording projects, papers, conference participations, seminars and teaching with citations and downloads. This would deepen assessments of research impact, both from a scientific and a broader perspective.

3) Education programs under agreements with local universities

CEFER's contribution to the B.A. program with Vilnius University and the national Ph.D. program that is about to be established should be preserved. The contribution to these programs is an important catalyst for developing an internationally competitive economics education in Lithuania. Notably, the Ph.D. program would broaden hiring options for the Bank of Lithuania over time.

4) Enhanced focus on central banking issues at the Baltic Economic Association Annual Meetings

It would be desirable and beneficial for the Bank of Lithuania and CEFER to introduce finance and macro-financial sessions in the program of the annual meetings of the Baltic Economic Association. This would further enhance the relevance of that meeting for central banks and extend the regional exposure of CEFER's staff working on central-bank-related research. The Center could leverage its role in the organization of the meetings to achieve this change.

5) Research infrastructures

Our interviews suggest that researchers in the Bank of Lithuania have access to adequate hardware and software equipment. The only issue seems to be the occasional server capacity bottlenecks for high-speed computing tasks.

We have also received feedback from researchers that the design of some Bank of Lithuania data and statistics is not always in a format that is easy to use in research projects. This can impact research productivity and limit the scope of work on domestic data and issues relevant to the Bank. Therefore, we suggest a structured effort between the CEFER leadership, the other research-active units in the Bank, the statistics department, and potentially other data-providing units in the Bank to find a cost-effective solution that

ensures easy use of data and statistics by the most relevant stakeholders, including researchers.

High-quality data from external sources are available at the Government Strategic Analysis Center (STRATA). Since past collaborations between CEFER and STRATA were valued highly on both sides, we suggest a structured effort to create systematic data-sharing arrangements in areas of mutual needs and interests. Such arrangements could extend beyond the specific research needs of CEFER, although this issue is not part of the scope of this report. This effort should ideally include the formatting and usability of data and statistics for research purposes.

Activity Trade-offs and Resource Implications

The increased focus on research related to central bank functions and policy priorities will absorb resources in CEFER. The question that needs to be answered is where these resources should come from.

While staff turnover can be used to achieve a certain recalibration of the research orientation within the Center over time, it appears less desirable to ask existing staff to change research topics away from their main area of expertise. This would give rise to a significant productivity loss and perhaps staff dissatisfaction.

Given the current staff size, CEFER will reach its capacity limit once the new Ph.D. program is set up. Implementing our recommendations thus requires cutting back on some of the existing activities and/or increasing staffing levels at CEFER. We now briefly discuss some possible avenues to implement our recommendations.

1) Reduction or removal of previous activities

If it is planned to keep existing staff levels constant, then we see options for re-optimizing the university collaborations, based on relative output. For example, the researchers currently collaborating with the Kaunas University of Technology (KTU) could be assigned to sustaining the national Ph.D. program.

We also recommend reducing research and policy contributions not directly related to the Bank of Lithuania's policy functions. We suggest that major research undertakings with authorities other than the Bank of Lithuania be limited to situations in which the Board judges such involvement to be in the strategic interest of the Bank. We do not propose this measure lightly, as some external engagements have been very successful in the past.³ Of course, this should not suppress research collaborations with other authorities involving only limited resources.

³ See part A, "Contribution to Applied Research with Other Units of the Bank of Lithuania and Other Joint Projects (Function 3)" for a list of examples.

Finally, we do not recommend reducing or removing teaching and research collaborations with the academic sector more generally and would advise against cutting back on the planned contributions to the new nationwide Ph.D. program.

2) Additional resources

The suggested cutbacks on activities alone may not be enough to free up sufficient resources for a successful implementation of the proposed recalibration. To significantly increase research in core areas and internal collaboration and communication with other departments, and thereby a stronger integration of the Center in the Bank of Lithuania, we also recommend to consider a moderate CEFER staff increase. This could be achieved by hiring additional staff working in CEFER or by establishing a shared arrangement with the main recipient department(s) or with another department (with research resources, such as the Applied Macroeconomic Research Division in the Economics Department). In other words, overall headcount of the Bank of Lithuania does not need to be affected. In whatever way this is done (Bank-wide resource allocations are beyond the mandate for this report), the benefits of better integration of CEFER in the Bank of Lithuania should be preserved.

For example, for the state-of-the-art applied models and research-based indicators suggested in the section “Research on Central Bank Core Functions, Collaborations with Other Departments and the Eurosystem” above, point 2), one would need a researcher with expertise in monetary policy and another one in the domain of financial stability. Alternatively, it may be necessary to identify sufficiently qualified or to hire the new employees in the Economics and Financial Stability Departments. The relative balance of resources assigned in/hired by CEFER or the main recipient department will depend on the mode of collaboration chosen. The first option above may be appropriate if CEFER mainly develops the model/indicators, subject to comments and requests by the main recipient department. The second option may be more appropriate for an even-handed joint effort in developing these tools. But again, the second option is outside the mandate given for the preparation of this report, which only covers CEFER.

Finally, we stress that CEFER must maintain an attractive and internationally competitive research environment to successfully hire (and retain) researchers with the required skills and qualifications – regardless of whether the proposed recalibration of activities is implemented via staff turnover or via additional human resources.

Annex: Terms of the Evaluation

I. Scope

The [authors] shall conduct an external evaluation [...] of the activities of the CEFER of the Bank of Lithuania [...]. The evaluation shall cover all aspects and processes of the CEFER research and research-related activities. The evaluation shall include the following tasks:

1. To assess compliance of the CEFER activities with the Bank of Lithuania CEFER statute.
2. To assess the quantity, quality, effectiveness and relevance of the CEFER activities.
3. To assess the value created by the CEFER activities and their impact on the Bank of Lithuania, the CEFER partners and other beneficiaries.
4. To provide the key findings, suggestions for development possibilities for the CEFER activities and recommendations for the future.
5. To prepare and present the report on the external evaluation of the Bank of Lithuania CEFER research and research-related activities in accordance with the requirements laid down in Part II [below].

[...]

II. Requirements for the Evaluation Report

The evaluation report shall include:

1. A part specifying the purpose, scope and date of the evaluation and the period subject of evaluation. This part should contain also other related aspects explaining the basis and criteria of the evaluation and the methods used.
2. A part providing the general evaluation of the quantity, quality, effectiveness and relevance of the CEFER activities, compliance of the CEFER activities with the Bank of Lithuania CEFER statute and the impact of the CEFER activities on the activities of the Bank, CEFER partners and key beneficiaries.
3. The key findings, suggestions and recommendations for the future.
4. The Evaluation Report shall be drawn up in English, and the executive summary of the report covering items 1 to 3 of this part shall be prepared in English.
5. The evaluation report will be submitted and presented to CEFER, the Board of the Bank of Lithuania.