EVALUATION OF MNB RESEARCH

A REVIEW OF THE RESEARCH FUNCTION AT THE NATIONAL BANK OF HUNGARY

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1. Introduction

The Research Department at the Magyar Nemzeti Bank (the central bank of Hungary; herafter MNB) was created in 2008. Five of the six economists in the Research Group within the Economic Analysis and Research Department (now called the Monetary Strategy and Economic Analysis Department; hereafter MSEA) moved into the new Research Department. The Research Department focuses on long-term research that meets the standards of international academic journals. Applied research, aimed at serving more directly the immediate needs of policy analyses, is primarily carried out in three other departments: Monetary Strategy and Economic Analysis, Financial Stability (FS), and Financial Analysis (FA). This re-organization amounted to recognizing the importance of the research function by the MNB. As a result, research was placed on an equal footing with the other policy units.

Before the new Research Department was fully in place, two external researchers, László Halpern (Institute of Economics, Hungarian Academy of Sciences) and Loretta Mester (Federal Reserve Bank of Philadelphia), were asked to evaluate the research activities of the MNB. Their report was delivered in March 2008.

In early 2010, the Supervisory Board of MNB ordered an informal overview of the bank's research activity. The research strategy was updated in 2011. In 2012 the MNB again invited two external experts, Pierre Siklós (Wilfrid Laurier University and Balsillie School of International Affairs, Canada) and Anders Vredin (Sveriges Riksbank, the central bank of Sweden) to conduct a follow-up evaluation. The evaluators were asked to assess the quality of the Bank's research output as well as the relevance of the research activities for the strategic goals of the Bank. The evaluation should cover all of the economic research activities of the MNB, irrespective of the department in which the activity takes place. That is, the evaluation should cover not only the long-term research undertaken by the Research Department, but also the applied research produced by other departments. The terms of reference are provided in the Appendix to this Report. Both evaluators appreciate the time, effort, and the willingness of the Research Department, and especially the Head of Research (Dr. Péter Benczúr), to fully cooperate with our numerous questions, various requests for

documents and meetings with a large number of the staff in all departments with a research function (see the appendix) as well as the two Deputy-Governors (Ferenc Karvalits and Júlia Király). In addition, we received very helpful feedback from a preliminary presentation of our findings. Nevertheless, the opinions expressed here are our own and were not in any way influenced by Heads of departments, staff, or the Deputy-Governors.

The evaluation which follows is based on interviews with MNB staff during two visits (December 11 – 12, 2012, and January, 10 – 11, 2013), on samples of published research (in English and Hungarian) and of internal documents (many in Hungarian). In preparation for the visits the external evaluators sent a series of questions to the Head of the Research Department, Dr. Péter Benczúr, regarding quantifiable and non-quantifiable aspects of research done in all departments at the MNB. The evaluators also presented a preliminary version of their findings on January 10, 2013 to Deputy-Governor Ferenc Karvalits, the Head of Research, the Heads of the Policy departments, as well as interested staff. Approximately 30 to 35 were in attendance at the presentation. The evaluators also spoke on the phone and exchanged e-mail correspondence throughout. Fairly early in the process the evaluators agreed to submit a single report even though the terms of reference allowed for the possibility of two separate reports being prepared. This reflects the strong consensus both evaluators felt about past and present research performance at the MNB, and agreement about recommended changes in the research function at the MNB going forward.

In this introductory section we devote considerable space to a discussion of general questions about research that are important for central banks. The reason is that we want to put our subsequent evaluation of the MNB's research activities, and our recommendations, in a wider perspective. Many of the difficult, but also stimulating, challenges that the MNB faces in the research area today are shared by researchers and policy makers at other central banks. The strategy followed by the MNB is, in our view, consistent with "international best practice". This means hiring and retaining talented individuals and creating the conditions where the MNB's research work can become influential in the community of central bankers and its quality recognized in academic

circles. As we argue below, the experiences and challenges faced by the research activities of the MNB resemble that of many other central banks. This has two important implications. First, the MNB can learn from other central banks' experiences. Second, and arguably more important, is that the MNB can contribute to better research and policy in the community of central banks (e.g., the euro system).

1.1 Objective and purpose of research in a central bank

The crises in financial markets and in economic policy that have hampered economic growth in Europe during the last five years have raised several difficult problems that central banks have to deal with in their policy formation. These problems were not unknown but were previously underestimated during the so called "Great Moderation" era that ended abruptly in 2007 when the 'global financial crisis' erupted. For instance, increased integration of trade in goods and services between countries and higher mobility of capital and labor have made the world's economies increasingly dependent on each other. Another feature characteristic of advanced economies is a high degree of innovation in financial markets and the level of sophistication of the instruments that were created in recent years. Experiences stemming from the recent crises have also demonstrated that the distinction between central banks' objectives of monetary policy and financial stability may not be so clear-cut as used to be commonly believed in a previous era. Nor does it seem possible to easily separate monetary policy from fiscal policy, a position policy makers and researchers used to take, in part because considerable academic research supported this kind of separation of policy tasks.

All these difficulties suggest that the economic and political environment surrounding central banks is more difficult to predict and understand than many of us believed during the period of the "Great Moderation". Nevertheless, structural changes often develop gradually, and serious economic analyses can help central banks and governments to be prepared to deal with their consequences.

Against this background, one can list several reasons why a central bank needs to devote resources to long-term research comparable to research conducted at academic institutions. First, a Research Department can support the applied research conducted by

policy departments by continuously evaluating the quality of the policy work, ensuring that the policy work is based on the best available scientific methods. Second, a Research Department can suggest new questions and methods that the central bank should pay attention to. Third, the Research Department can contribute to maintaining an intellectual climate inside the central bank which, in turn, can help the central bank attract and retain good economists. Fourth, the Research Department provides opportunities for the central bank to be part of the international network of researchers within the field of central banking (both researchers at universities and central banks). In principle, all these objectives can also be fulfilled by the policy departments in a central bank and need not require the establishment of a separate Research Department. After all, the ultimate purpose of hiring researchers at a central bank is to be able to implement better *policy*. However, unless academic research has a very strong tradition at the central bank (which is sometimes, but not often, the case) it will be more difficult to achieve these objectives without a separate Research Department whose primary objective is to conduct long-term research that meets high academic standards. Even when the economy is not in a crisis situation there will always be "excess demand" for short-term policy analyses within the central bank and there is a clear risk that the long-term analytical work - which can be very valuable in a crisis - is crowded out.

In their earlier evaluation, Halpern and Mester (2008) endorsed the formation of a separate Research Department that focuses on research that is publishable in international academic journals – basically for the same reasons as outlined in this Report. Halpern and Mester provide more detailed arguments about the objectives and purpose of research, but since we fully agree with their views on this subject, we do not feel the need to repeat their arguments here. Essentially, the main message is that: "it is the longer term, academic-style research that forms the basis for policy analysis" (Halpern and Mester, 2008, p. 2).

1.2 Challenges for research activities in a central bank

Even in a central bank where the value of longer term, academic-style, research is well understood and explicitly supported by the top management there will always be difficult questions to tackle (e.g., over how many resources should be devoted to the research

function and what topics research should tackle). Of course, such questions are also relevant for the applied research conducted by policy departments. One issue concerns how much time should be allocated to long-term research and applied research in relation to the daily and more operational work that is a necessary part of policy making. It is important to realize that, quite naturally, there are always risks that researchers (both academic and applied) become too little or too much involved in policy-making. Their involvement may be too slight because the economists who focus on policy work, for example, fear competition from researchers. In such a situation, if researchers are happy to focus on their research agenda, the equilibrium outcome may be one where there is very little integration of research and policy analysis, and hence very little influence from research on policy – despite the strong arguments for research presented above.

But there also exists a risk of researchers becoming too involved in short-term policy work. Such a situation may arise because the top management – often correctly – realizes that successful researchers can provide useful policy advice based on their general abilities to analyze difficult problems. Researchers, in turn, may be attracted by the possibility of direct access to the policy makers. As a result, they may also be happy to give lower priority to their research agenda, at least temporarily. This may, however, give rise to a situation where considerably fewer resources are devoted to longer term research than intended, with negative effects on the central bank's analytical methods over time. How much of the economists' time at the central bank that should be devoted to longer term and applied research is thus a difficult, but strategically important, issue.

A related matter concerns whether the research agenda should be decided according to a "top-down" or "bottom-up" principle. The former is characterized by a large share of directed research where the agenda is largely set by the top management. The latter is characterized by a process where research projects undertaken largely reflect the researchers' own initiatives. The advantage of the former approach is that research, in principle, becomes focused on issues that are highly relevant for policy. The advantage of the "bottom-up" approach is that the research agenda is determined by the problems that can realistically be analyzed by the research staff employed by the central bank and by questions that are viewed as meaningful by the international community of researchers

(i.e., in the fields of economics, finance and statistics). In practice, the research agendas of central banks often seem to be the result of a combination of "top-down" and "bottom-up" procedures. The reasons may be that policy makers both understand the importance of researchers being able to influence the research agenda while researchers who work at a central bank naturally choose to work on issues that are viewed as primarily, though not exclusively, relevant to the central bank.

Halpern and Mester (2008) viewed the "top-down" approach as appropriate for the applied research projects and the "bottom-up" approach as the best model for the longer-term research. We agree, in principle, but return to this issue in more detail below because the distinction cannot easily be implemented in practice. For example, the choice of applied research projects can benefit from the input of staff especially when senior management comes from a variety of backgrounds. It is clearly desirable for researchers in a central bank to have the freedom to pursue the topics they are interested in. Consequently, incentives for publications that enhance the MNB's reputation, as well as for research that can address policy questions of interest to the Bank, require a mix of "top-down" and "bottom-up" strategies.

A third issue concerns how the results of research should be reported and disseminated. For the longer term, academic style, research it is natural to publish the first versions of the research reports in the central bank's Working Paper series and then to submit works to international academic journals. However, more applied and more directly policy-relevant research may also by published in Working Papers and academic journals. But given the nature of this type of research, other forms of publications may be more suitable. Some reports may be published as short "commentaries" of, say, around five pages or so on the central bank's web page, or longer (e.g., ten to fifteen pages) articles in some journal published by the central bank itself, or appear as "boxes" or "appendices" in regular reports (e.g., monetary policy or financial stability). Often, the applied research may be used in the policy process but not published externally at all. While the latter often may seem entirely sufficient for short-term policy purposes and appropriate, especially if the analyses involve sensitive information, this strategy may result in too low a return on the research efforts for society at large. Moreover, this outcome may deter sought after quality

of the policy work since the resulting research cannot be evaluated by people outside the central bank.

Halpern and Mester (2008) recommended that "the MNB might consider encouraging the applied researchers to submit some of these papers to journals for outside publication", as a "good strategy for recognition" (p. 5). But they also emphasized the importance of publishing applied research in formats other than Working Papers alone in order to make clear that a portion of the applied research is also published as "finished products and not working papers that did not achieve publication" (p. 18).

2. The MNB's Research Strategy

The decision to create a separate research department, and complement the policy work done in other departments inside the central bank, was motivated by the desire, as stated in an internal document, hereafter referred to as the Strategy document, to create a group "...known at the European level by means of publications in prestigious international academic journals." (MNB 2011).

As we argue in the section where we outline our recommendations the aim of a research department should also consist in supporting policy analysis that is of interest to the MNB. This is alluded to in section 1.2 of the Strategy document but the emphasis is on cooperation between the departments whereas the research function alone can also contribute to strengthening the quality of policy making. In the current economic environment pure research could be very influential by informing thinking about how best to examine the impact of policies. As the first Evaluation Report of MNB Research, published in 2008, also points out "..., it is the longer term academic-style research that forms the basis for policy analysis" (Halpern and Mester 2008). In addition to academic research the research considered in the present evaluation is, as noted above, conducted in three other departments: the Monetary Strategy and Economic Analysis Department, the Financial Analysis Department, and the Financial Stability Department.

Originally, the research strategy of the MNB was designed, in 2008, around the time the MNB asked for an Evaluation Report conducted by László Halpern and Loretta Mester (Halpern and Lester 2008).³ Based on our discussions with Senior Management, it appears that the decision to set-up a stand-alone research department had been taken and that the

¹ "Strategy of the Research Department: 2011 Update of the Original 2008 Document".

² The report is available from

http://english.mnb.hu/Root/Dokumentumtar/ENMNB/Kutatas/mnben research at the mnb/bank of hung ary review final 5-27-2008.pdf. The positive externality between research and policy analysis is a theme that pervades all such external evaluations of central bank research. See, for example, Freedman et. al. (2011) for the ECB, Caballero et.al. (2012) for the Bank of Spain, Meyer et.al. (2008) for the Bank of Canada, and Garrestsen et.al. (2012) for the Bundesbank.

³ As far as we are aware there was no official response to the original Evaluation Report conducted by Halpern and Mester. The report, dated March 28, 2008, was prepared shortly after the formation of a separate research department at the MNB. The first Head of the department was installed "...at the beginning of March 2008" (Halpern and Mester 2008, p.1).

Halpern-Mester Report might serve to assist with the actual organization and goals of such a department. At the time Dr. Ákos Valentinyi, an academic, was listed as incoming Head of the research department (Halpern and Mester 2008, p. 22). He left the MNB in 2010 to return to academia. Dr. Péter Benczúr, a researcher at the MNB since 2001, became the Head of the department in 2011 after serving as Acting Head following the departure of his predecessor.

The change in leadership in the research department led to an interim examination of the research strategy originally announced in 2008. While the mission of the research department was not modified perhaps the biggest change was a concerted attempt of the research department to better integrate its activities with the policy departments through enhanced cooperation. We were also given the impression by a few individuals that the value of research could be better communicated to the staff at the Bank by a more concerted attempt at raising the department's profile as a useful resource, whether directly or indirectly via the contribution to the quality of policy analysis, to the senior policy makers sitting on the Monetary Council (MC or 'Monetáris Tanács' in Hungarian).

The 2011 restatement to the original 2008 research strategy document effectively implied that, with some exceptions, staff would no longer be able to devote as much of their time to research since more cooperation and greater support of the policy work of the MNB, by definition, is time-consuming. However, there was no attempt to assign any non-research time across the department in a systematic fashion. This was done in keeping with the strategy of permitting as few "...interruptions of the time intended for research as possible." [MNB 2011] Staff of the affected departments was also encouraged to cooperate and discuss common research interests in response to several pressing issues that emerged

⁴ A December 2011 internal document entitled 'Cooperation activity of the Research Department' outlines a SWOT (Strengths-Weaknesses-Opportunities-Threats) type analysis for this activity as well as a variety of programs to enhance inter-departmental cooperation. All of the ones in operation at the time of our evaluation are considered.

⁵ MNB (2011) states, that the average amount of time spent by the research department "on the cooperation with other professional fields" is 50%. In practice, this kind of work is unevenly distributed for a variety of reasons, including differences in research interests and the career stage of the researcher in question. The data are meant to be indicative as they are based on a survey from the Statistical Agency intended to quantify the amount of 'Research & Development' taking place in various institutions in Hungary.

as a result of the global financial crisis followed by the ongoing sovereign debt crisis in Europe. A device adopted to accomplish this objective is the *Research Forum*. The intention is to provide, several times a year,⁶ an opportunity for staff from research and other departments to interact and sharpen the focus of their ongoing research activities and potentially create new avenues for joint research not only between members of the research department and the other research areas, but also between the various policy departments. It is our understanding that the forum is a second avenue for a discussion of near term research plans and objectives.

Individual departments generate their own internal research plans in parallel with joint research projects that may emerge from the research forum. In principle then, the *Forum* provides an element not only to promote cooperation and the development of joint projects but can also serve as a mentoring device. The 2008 MNB Research Evaluation Report (Halpern and Mester 2008, p. 7) also underscored the role of outsiders (e.g., Senior Visiting Researchers) as mentors. As the capacity and proven publication performance of the research staff improves they can also serve as mentors to potential researchers in the various policy departments.

The positive spillovers from better relations with the other departments were thought to be greater than the loss in potential time devoted to research. It was also felt that new research projects, eventually publishable in academic journals, might result. In other words, fostering greater cooperation among departments, notably between the research and policy department(s), effectively amounts to a mentoring program wherein academically oriented researchers could provide advice and support to other colleagues in the central bank who are required to prepare policy papers or memos that are circulated to

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⁶ There are three meetings. A 'brainstorming' meeting takes place in December followed by a February meeting when the research plans are presented and made more concrete. Finally, a meeting in September reviews the work to date and adjustments to the work plans are made, as necessary. The senior administration (viz., Governor and Deputy-Governors) participates in the February meeting.

⁷ As far as we are aware the first meeting of the *Research Forum* took place in December 2011. At that meeting the purpose of the Forum was outlined and information was exchanged. Of the 11 themes of research listed in the minutes, 9 appear to involve more than one department and 5 of the 9 include the research department.

⁸ Assisting this development perhaps is the observation that staff in the research department is, on average, older than their counterparts in the policy departments. Over ³/₄ of the research department staff are in the 35-44 years age bracket. In contrast, 53% of FA are 25-34 years old, 62% are in the same age category in MSEA while 65% of FS is also in the same age group.

the MC. Moreover, the attempt to improve cooperation with the other research areas would enhance the quality of the policy recommendations presented to senior management.

As of this writing, the MNB's website lists eight members in the research department (http://english.mnb.hu/Kutatas/research-department/researchers-submenu). One is on leave at the European Central Bank (Dr. Péter Karádi). The notional capacity of the department is 10 researchers. Moreover, two of the researchers, Drs. Alessia Campolmi and Róbert Lieli, have joint appointments with the Central European University. Members of the department are free to pursue independent research on any topic. The MNB expects researchers to publish in high quality journals. Indeed, the MNB has developed a journal ranking classification that resembles many that have been published elsewhere⁹ but is somewhat tailored in recognition both of the central bank's research priorities as well as tendency of their researchers to publish in certain types of journals (e.g., macroeconomics, econometrics). The ranking (see Appendix) is updated on a regular basis (e.g., annually) in recognition that new journals have appeared in recent years (e.g., International Journal of Central Banking).¹⁰ While it is perhaps understandable that the 'output' of the research department is viewed through the lens of academic publications, and how highly these are ranked, there is no explicit recognition that publications emanating from the policy departments is similarly rewarded or recognized. Yet, high quality policy research, particularly if other central banks and policy makers are seen as benefitting from the policy experience of the MNB, should also be taken as evidence of achievement of a high level of skill and ought to further enhance the central bank's reputation in the EU and among euro zone central banks.

The size of the research department is dwarfed by staff numbers in the other departments previously mentioned. More importantly, the fraction of the time staff notionally devotes to research is considerably smaller than in the research department. According to internal MNB documents, the financial stability department has 21.66 full-

⁹ Among the better known attempts to rank journal quality are the <u>Handelsblatt</u> ranking, or the <u>CL index</u>. However, several other rankings exist.

¹⁰ The journal rankings provided does indeed recognize that there exist a variety of rankings and provides a comparison of three other journal rankings. The final ranking used consists of 259 journals. A total of 468 research outlets were considered for inclusion in the rankings.

time equivalent (FTE) staff, the monetary strategy department consists of 33.19 FTE individuals while the financial analysis department has 29.29 FTE staff members. All figures are for 2011. According to data for 2011 provided to us by the MNB the time allocated to research is 8.54% for the FS department, 11.16% for the MSEA section, and 17.81% for the FA department. ¹¹ An additional distinctive characteristic of staff in the various research areas, relative to the research department, is that members in the latter group all have PhDs. There are considerably fewer staff members in the other research areas (e.g., 1 PhD in FS, 4 PhDs in MSEA, and 2 PhDs in FA).

The research department's mandate is also supported by other resources. The Strategy document explicitly points out that the creation of the Budapest School of Central Banking Studies (BSCBS) is intended to "...develop the analytical skills and knowledge of the Bank". Nevertheless, the BSCBS also aims to satisfy an outreach function by providing an opportunity for staff at other central banks to participate in the course offerings of the School. Indeed, participants from around the world have attended courses (e.g., Korea, Tunisia, Malta, Jamaica). The School typically offers 4 to 5 courses per year. Two are ordinarily offered in the Spring and in the Summer two more (http://english.mnb.hu/Kutatas/budapest-school-for-central-bank-studies). Since its inception the Director is Professor Fabio Canova, from the University of Pompeu Fabra, Barcelona, Spain. Professor Canova has considerable international experience with short and intensive courses aimed at quickly improving the skills of central bank staff available online increasingly pressed for time. Course descriptions are (http://english.mnb.hu/Kutatas/budapest-school-for-central-bank-

At the time of writing the MNB's website claims that the course offerings range from intermediate level to frontier level courses. The former are offered in Spring while the latter type of courses are taught during the Summer. However, in separate correspondence

with the Director, demand for intermediate courses was deemed to be low. This outcome

studies/mnben courses) while the Appendix provides a list of course titles, instructors and

their affiliations, since 2009.

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¹¹ However, see note 4 for the source of the data.

partly reflects the relatively high level of technical competence of non-PhD staff at the MNB, and in neighboring central banks which send staff to attend BSCBS courses. Hence, the School now offers only advanced and frontier level courses. The courses are chosen in part based on the needs and requests of the staff as communicated through the Head of the MNB's research department. There is an understandable tension between the desire to use the BSCBS as a device to enhance the capacity of MNB staff to conduct high level research and as an instrument to promote 'outreach' and, in so doing, improve the reputation of the central bank among its peer institutions. Nevertheless, it remains unclear whether the senior administration has given serious thought about how to resolve this tension or, rather, exploit it to improve its internal research capacity. Moreover, other than for a close working relationship between the Head of Research and the Director of the School, there is little interaction between the Director of the School and the senior management.

There are three stated objectives in the selection of actual course offerings. They are: (1) to provide a wide range of topics that are currently debated in macroeconomics, applied econometrics, and finance; (2) to ensure that courses are taught by the leading experts in the field with established international reputations; (3) to guarantee that the content of the courses should provide a judicious mix of theory and policy analysis. The list of academics coming to the MNB to offer courses is impressive (see Appendix). Hence, in principle, the BSCBS does offer staff at the MNB a unique opportunity to develop essential skills that contributes to enhancing the quality of policy relevant research. Based on surveys of individuals who have attended courses in the past, the level of instruction, quality, and value of the lectures is high. Attendance is modest allowing for personal interactions between lecturers and staff taking the courses though the School apparently operates at below capacity estimated at approximately 30 participants. We address this state of affairs in our recommendations.

 $^{^{12}}$ We have created a spreadsheet that summarizes the scores for most of the courses offered since 2009 and which the MNB has provided us with the survey results. The spreadsheet was provided separately to the MNB with this report.

¹³ The number of respondents to course evaluations (a sample form is shown in the Appendix) ranges from 4 to 14. Of course, more students may have attended the courses than were willing to complete the evaluations (we were told that a typical course would attract 20 to 25 students).

Three other research related activities fulfill the goals of developing academic relations with other central banks and academic researchers elsewhere. First, research staff can avail themselves of the opportunity to visit other central banking and academic institutions for short periods of time, ranging from a week to a few months. At the present time the opportunity appears restricted to members of the research department only. Second, the MNB, in cooperation with the Centre for Economic Policy Research (CEPR) based in London, have organized an annual workshop on topics of current interest to central bankers and academics. The appendix provides the theme and the link to programs since 2008. The topics clearly demonstrate that the most up to date issues and controversies are the subject of papers presented. Moreover, the list of presenters is not only truly international but the papers are of the highest standards and the list of participants provided to us suggests that, in addition to participation by research department staff, many in the MNB policy research departments have attended these workshops over the years. The CEPR (http://www.cepr.org/home/ceprdoes.htm) is Europe's premier research network. Our impression is that workshops attract a reasonably large number of submissions (approximately 30 per year) of which 6-8 are selected for presentation. Third, the MNB, in concert with the Economics department at the Central European University (CEU), offers during the academic year a weekly seminar (Budapest Economic Seminar Series, BESS). Typically, outside researchers, visitors and, occasionally, staff of the MNB present their work in progress. The appendix provides the list of presenters, home institutions, and paper titles since 2008.

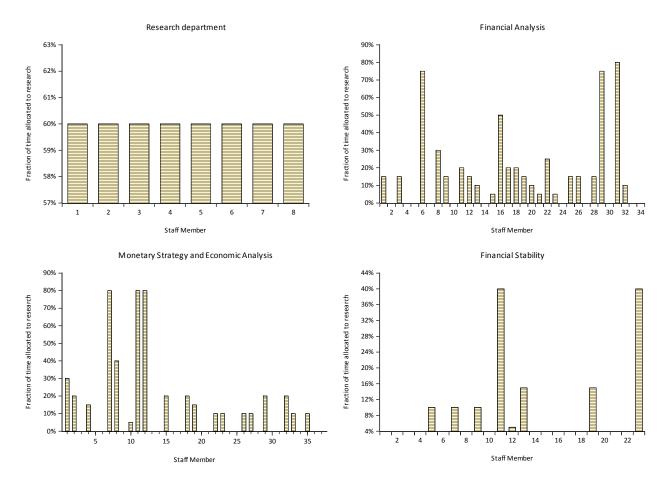
Finally, the research department's strategy also operates a visitors program. The program functions along two streams. Senior academics from around the world are invited for short periods (i.e., one to two weeks) to discuss current research topics with staff, and present their current research in an MNB seminar (and/or at the Central European University, with whom the MNB cooperates, depending on the time of year,). Staff can also recommend, through the research department, that certain distinguished visitors be invited. Alternatively, staff in the research department may arrange invitations. The pursuit of joint research is also a potential aim of the senior visitor program though no such

projects, so far, have emerged. To date, the quantitative objective of the visitor program (three visitor weeks per year) has not been consistently reached.

The MNB has also offered "...6 to 10 Summer Visiting Researcher Positions to young researchers, advanced PhD students and ESCB [European System of Central Banks] researchers". In principle, the goal of the program is to enhance interest in the academic community about the problems and challenges faced by central banks. There is an expectation that the junior visitors will collaborate with MNB research staff and publish a working paper in an area relevant to the 'listed topics' announced annually (e.g., see http://english.mnb.hu/Kutatas/visitors-submenu). However, a perfect matching of the ongoing work of the junior visitors and the staff is not always possible and the program apparently is sufficiently flexible to permit some exceptions to the rule that the research must be "...relevant for the general interests of MNB,...". The prominence of the visitor's program was raised after the 2011 re-examination of the original 2008 Strategy document, in part as a response to a desire for potentially identifying and attracting future research staff to the MNB. The list of such visitors, their home institutions, and the topic of research is also provided in the appendix. The list reveals a steady stream of both domestic and international students. Moreover, while it is understandable that a little over half of the visitors were assigned to the research department, a significant number were also slotted in the MSEA department. Surprisingly, only one of the visitors was assigned to the FS department.

It is important to highlight that, other than recognizing the role of good institutional research as essential for the maintenance of central bank reputation and credibility a point also made in the Introduction to this Report, the strategy of the research activities operates in a largely 'bottom-up' environment. That is, individual department Heads, and their staff, have considerable latitude to propose and generate research projects. To be sure, senior management requests memos and reports that address pressing issues on the minds of the MC. Research topics are, by and large, decided by the staff but are clearly driven, to a greater or lesser extent, by the ongoing sovereign debt crisis and the particular economic concerns of Hungary, notably the role and impact of fiscal policy and the determinants of financial system stability. Nevertheless, there is an 'allocation' of research time, as shown in

the Figure below, so there is a 'top-down' element though it is our understanding that these figures are notional and that there exists scope for flexibility around the targets.



Note: Based on data provided by the MNB. The bars show which staff members are deemed to have some time allocated to research. When no data are shown, it is assumed that the notional research time is 0%. See also footnote 5 for additional details about the data source.

Interestingly, the present evaluation of the overall research strategy comes at a time when resource allocation in the research area have remained stable while the demand for research output in other areas (viz., financial system stability) have grown rapidly. Moreover, time pressures have led the forecasters and modelers at the Bank to devote fewer resources than might be advisable to maintain a 'suite' of models that is the essential for all central banks to operate. This has meant, for example, heavy reliance on a modeling framework adapted from the IMF. At the same time development of DSGE models, adapted

to Hungarian circumstances, has suffered. ¹⁴ This is unfortunate since such modeling efforts can not only provide useful analyses of monetary policy and financial stability, but also contribute to the MNB research function's mission of fostering "... international academic and central bank research relations..." and strengthen the "... international presence of the Research Department...". Both are mentioned in the Strategy document (op.cit., section 2.3).

In light of the potential positive spillovers from the existence of the BSCBS, and the potential it offers to provide additional tools for policy analysis, the modeling strategy of the MNB is unfortunate. As we remark below, the staff in the policy departments is highly skilled and the fact that several different models are in development or use suggests that there is an opportunity to further enhance the MNB's reputation in policy research. We return to the implications of this, and other developments discussed above, in the section that outlines our recommendations.

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¹⁴ We were told that there was some dissatisfaction with the performance of such models, e.g., regarding forecasting. This is a conclusion drawn in some other central banks as well. Nevertheless, central banks around the world continue to invest in this modeling approach alongside other models. First, because these models clearly underscore the general equilibrium nature of various economic shocks. Second, DSGE models provide a common framework that central banks can use to simulate and investigate the potential impact of various types of policy changes and other shocks. Finally, since DSGE modelling is widespread among central banks a contribution by the MNB in this area would assist in its mission to fostering "... international academic and central bank research relations..." and strengthen the "... international presence of the Research Department...".

¹⁵ We were told that the portfolio of models at the MNB include a version of the short-term forecasting model used by the Norges Bank, various types of VAR (vector autoregressions) and BVAR (Bayesian VAR) models. Of course, the terms of reference did not permit an extensive review of the forecasting exercise conducted at the MNB but it appears to be conducted broadly like that at other central banks (e.g., Sweden's Riksbank).

3. Research Output and Performance

We found, as did the external evaluators of the Bank of Canada's research activities (Meyer et. al. 2008), that the term 'research' had a different meaning depending on the department Head or Deputy-Governors we spoke to. Outside the research department, which had clear a set of metrics to evaluate research activity and output, other senior management often equated research with output that is eventually published in academic journals. Alternatively, many felt that publication in the MNB's working paper series (MNB-WP), Occasional Paper series (MNB-OP), or the MNB Bulletin (MNB-B), represents evidence of successful research. Still others were concerned that research was unlikely to demonstrate policy relevance. Staff, especially in the policy departments, struggled at times to complete a research project, defined as a publication in one of the aforementioned outlets, but frequently expressed a view that an outside publication in some form was desirable not only because of the personal satisfaction such a publication could bring but also as a demonstration to their peers in central banks in Europe, and elsewhere, that valuable policy advice and interesting empirical investigations are being carried out at the MNB.

Accordingly, we follow the Meyer et.al. (2008) view that 'research' is "...any project aimed at expanding the general state of knowledge" (op.cit., p. 2). Moreover,"... 'high-quality' denotes a project with a ... significant impact on the work of economists at other central banks and academic institutions" (op. cit., p. 2). Needless to say, not all research can meet this standard nor should we lose sight of the fact that the MNB has a mandate and that some 'research' must also be directed to assist with meeting its mandate. In what follows then we focus on the output published in the outlets shown in the Table below that is not rank ordered. Clearly, as currently constituted, journal publications rank highest at the research department level while MNB-WP and MNB-OP papers rank equally in the opinion of department Heads (Background Studies have been discontinued). MNB Bulletin rank lowest in purely academic terms but are seen by everyone at the MNB as an important

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¹⁶ The Bank of Canada's <u>response</u> to the Meyer et.al. (2008) points out that "...applied work is critical to the successful pursuit of the Bank's policy mandates, and highly complementary to basic research, [but] it is difficult for an external body to assess its value." Like the Bank of Canada the MNB has a price stability objective.

communication and 'outreach' device intended for public consumption. Links to the first four outlets are also provided. Details about our evaluation of academic output are also provided.¹⁷

| Select Research Outlets of the MNB | | | | | |
|------------------------------------|--|--|--|--|--|
| MNB working paper series | | | | | |
| Occasional paper series* | | | | | |
| Background studies** | | | | | |
| MNB Bulletin articles | | | | | |
| Journal publications | | | | | |

Note: * There are also separate Occasional papers in Hungarian. These are found at http://www.mnb.hu/Kiadvanyok/mnbhu mnbtanulmanyok; ** Discontinued in RePEc after 2005. See http://edirc.repec.org/data/mnbgvhu.html.

Evaluation of research, however, cannot be restricted uniquely to an analysis of published research in the forms listed above. There is another important 'outreach' element that needs to be considered since central banks are public institutions and the impact of research should also be seen in how staff communicate with other researchers, whether they are central bank staff members or academics, via conference presentations, seminars, refereeing for peer reviewed journals and central bank publications (whether at the MNB or elsewhere), membership in scientific committees or conference organization and planning. In addition, there needs to be recognition that the MNB must also communicate its research in Hungarian and not only in English. Regarding the evaluation of research, the Strategy document (MNB 2011) explicitly states that "...publication in prestigious international academic journals is the most important measure of the scientific performance of researchers and research groups." Finally, our evaluation considers the fact that the Strategy document also highlights that the aim for the research department proper is to "...become an academic group known at European level by means of publications in prestigious international academic journals."

¹⁷ The English version of the MNB website also contains 'Statistical Publications' and 'Other Publications'. The former provide details about some of the data used by the central bank (e.g., National Accounts) while the latter are meant as intended as general publications of the MNB (e.g., "Monetary Policy in Hungary"). We did not evaluate these research documents.

In addition to the usual benchmarks, such as the quality of research publications, the evaluation also considers other benchmarks such as the output of research departments in central banks in Europe, and elsewhere, of comparable size and openness such as the Riksbank, the Czech National Bank, and the National Bank of Poland. In addition, the research department has developed a sophisticated point scheme used to rank the 'output' of members of the research department (see Appendix). Nevertheless, it is our understanding that the point system is meant to serve as a guideline only. There is relatively little relevant data so far. Hence, we are unable to provide an assessment about whether the MNB's own internal ranking correlates with standard measures of research output used mainly by academic researchers. Nevertheless, casual inspection of the data for 2010 to 2012 does appear to suggest a positive correlation between journal rankings and the MNB internal research output score.

Finally, there is the question of how to treat the memos and other submissions made to Heads of department and the MC. Most of these are, understandably, in Hungarian¹⁹ but are not intended for public use nor are they written in the form that would make them easily amenable to publication in academic type journals. Nevertheless, samples consulted suggest a high level of skill on the part of the staff preparing these documents with the latest techniques (viz., econometric methods) utilized. The topics covered also point to a growing interest over time in financial stability, finance, and fiscal issues. We assume that the choice of topics stems out of a demand stemming from members of the MC as well as Heads of department who are required to communicate with senior management on a more regular basis. In spite of the foregoing considerations an indication of the research capacity and quality of the research that goes into these types of documents does emerge, for example, in the form of 'Boxes' in the MNB Quarterly Report on Inflation and its Report of Financial Stability. We examined a small sample of these. Both publications are available

¹⁸ Detailed data showing the breakdown by individual members or the research department were made available to us for the years 2010 to 2012. It is difficult, beyond for internal purposes, to draw inferences from this data in part owing to staff changes in the research department.

¹⁹ One of the members of the outside evaluation team, Pierre Siklós, was assigned the task of reading materials in Hungarian.

in English and in Hungarian.²⁰ The evaluation team examined the English language version since one member of the team could not evaluate the Hungarian language version of these publications. Whereas the typical box found in the Quarterly Inflation Report tended to provide a brief overview about a specialized topic of interest (e.g., the pass-through effects of food price change into headline inflation) generally without reference to any of the relevant academic literature, the same boxes that appear in the Report on Financial Stability tend to explore fairly sophisticated financial questions (e.g., the decomposition of default risk on corporate loans) as well as referring readers to a broader literature on similar topics often published by other central banks in the EU, or the euro zone. In both cases, however, the standards appear broadly similar to Inflation and Financial Stability reports published by some central banks (e.g., the Riksbank or the Bank of Canada).²¹

The Table below provides a listing of the international academic journals where MNB research staff has published articles.²² Recall that the MNB Strategy document specifically expects these researchers to publish in internationally recognized journals. As seen in the Table below there has been a steady flow of publications in increasingly highly ranked journals.²³ Nevertheless, one might ask whether the output shown below, taken together with the complete list of publications (see Appendix)²⁴, suggests that the

²⁰ Both publications are available in Hungarian, of course, but also in English. The Quarterly Report on Inflation is found at http://english.mnb.hu/Kiadvanyok/mnben_infrep_en, while the semi-annual Report on Financial Stability is found at http://english.mnb.hu/Kiadvanyok/mnben_stabil.

²¹ It should be noted that the roles and contents of the Inflation Reports vary considerably across the central banks. Some central banks, e.g. the Riksbank, publish interest rate forecasts, others (including MNB) do not. The Inflation Report published by the MNB presents the staff's forecasts and views, while the Monetary Policy Report published by the Riksbank presents the Executive Board's assessments. Such differences of course also affect the analytical approaches chosen for inclusion in the reports.

²² At the time of writing research department members' publications only go up to 2008 on the English version of the MNB's website. See http://english.mnb.hu/Kutatas/research-department/publications-submenu. The Hungarian version does not appear to display the same information and instead provides links to Hungarian language journal publications. See http://www.mnb.hu/Kutatas/a-kutatas-szakterulet/mnbhu_cikkek.

²³ We also examined the CVs of the members of the research department and found several papers in the revise and resubmit stage of publication in journals such as the *Journal of International Economics, the Journal of Business and Economic Statistics, the Journal of Econometrics and the Journal of Finance.* If these papers eventually get published in these journals this would represent additional confirmation of a steady flow of published research in internationally recognized high quality refereed outlets.

²⁴ Data are available from the individual research department staff curriculum vitae. The difficulty is that it is likely inaccurate to credit the MNB with publications that may have been submitted prior to a researcher's employment in the Bank. Given long publication lags in economics it is reasonable to examine the output for

department may, overall, be under-performing in relation to one of the objectives in the research strategy. In the recommendations we suggest some adjustment to the current standard (MNB 2011) of "...two publications in every three years on average..." for senior researchers whereas junior researchers are expected to "...get their first publication within three years from the date of their PhD." First, our recommendation is motivated by the lack of clarity about the distinction between junior and senior researchers. Second, research output is perhaps too narrowly focused on journal publication. Third, one could argue that numerical objectives of this kind, without due attention to the quality of publication might provide the wrong incentives. Additional attention should also be given to the publication of working papers on a more regular basis, partly because a steady flow of Working Papers is necessary to achieve publications in international journals. In addition, central bank researchers have a relatively large in-house group of potential referees that can boost the quality of the Working Papers and thus increase the chances of a subsequent journal publication.²⁵ Fourth, with the exception of the top 10 or 20 journals that consistently remain in the rankings over long periods of time, there is likely to be some variation in what is considered "prestigious or highly influential". Besides, some consideration also ought to be given to the fact that mere publication in such journals does not always translate into citations. The credibility and reputation of MNB researchers is also likely to be affected by whether their peers rely on their 'published' research in their own work.

| SELECTED JOURNALS WHERE RESEARCH STAFF HAVE PUBLISHED Journal Ra | | | | | |
|--|--|---|--|--|--|
| YEAR | Journal Name | | | | |
| 2008 | Applied Economics | 2 | | | |
| | Managerial and Decision Economics | 2 | | | |
| | Review of Economic Dynamics | 4 | | | |
| 2009 | Journal of Economic Dynamics and Control | 3 | | | |
| 2010 | Journal of Monetary Economics | 4 | | | |
| | Journal of the European Economic Association | 4 | | | |
| | Journal of Derivatives and Hedge Funds | 2 | | | |

the years 2010 and 2011 alone. There is evidence that publications lags have lengthened in recent years and can be in the vicinity of almost 2 years. See Conley et. al (2011) and references therein.

²⁵ Of course, the quality and motivation of in-house referees versus ones chosen by academic journals might differ. Nevertheless, the availability of a large pool of interested colleagues could be a source that contributes to enhancing the quality of research. Alternatively, the central bank, as many now do, could turn to external referees (and not exclusively from international central banking circles).

| 2011 | Journal of International Money and Finance | 3 | | | | |
|------|--|---|--|--|--|--|
| | Review of Economics and Statistics | | | | | |
| | BE Journal of Macroeconomics, Contributions tier | | | | | |
| | Journal of Money, Credit and Banking | 4 | | | | |
| | International Journal of Central Banking | 2 | | | | |
| 2012 | Macroeconomic Dynamics | 2 | | | | |
| | Econometric Theory | 3 | | | | |
| | Emerging Markets Finance and Trade | 2 | | | | |

Note: The MNB Journal ranking is used. 5= top-rated, 1= lowest-rated journal.

In addition to journal publications the research department is also evaluated according to its 'outreach' activities, that is, conference presentations, seminars, and refereeing both for the internal seminar series as well as in support of the essential peer review function carried out on behalf of academic journals.²⁶ Well over half of the conferences attended and other types of presentations given in 2010 and 2011 took place outside of Hungary, principally on the European continent. An even larger fraction of refereeing was in support of international journals or publications (e.g., special issues or volumes). The foregoing translates approximately to almost 2 conferences/seminars attended per year by each staff member and almost 6 papers refereed per year per staff member.²⁷

While publication in academic journals is, of course, a useful metric to evaluate research output, as noted earlier recognition of the value of the MNB's research output should also be interpreted through the frequency with which staff publishes their research in the MNB-WP series and how frequently the profession cites MNB research.

The Table below suggests that relatively little of the research output appearing in the MNB's WP series is the result of inter-departmental collaborations. In addition, other than the MSEA department, the publication effort of the FA and FS departments seems woefully inadequate. The latter is somewhat surprising given the increasing prominent of

²⁶ Details of presentations, refereeing work, and publication output made available to use before the January 2013 visit to the MNB are relegated to the Appendix.

²⁷ The calculations assume 7 research staff in 2010 and 2011. A total of 20 conferences/seminars were attended in 2010, 31 in 2011. A total of 41 papers were refereed in 2010 and 29 in 2011. Refereeing includes reports written in support of the MNB working paper series which are peer reviewed.

financial stability issues. Overall, WP output is comparable to that of the Riksbank but the MNB underperforms relative to the Czech National Bank or the National Bank of Poland. We make some suggestions intended to raise the level of output in the form of WP in our recommendations. In doing so we also recognize that care must be taken in basing recommendations on comparisons based on data in the Table below.²⁸

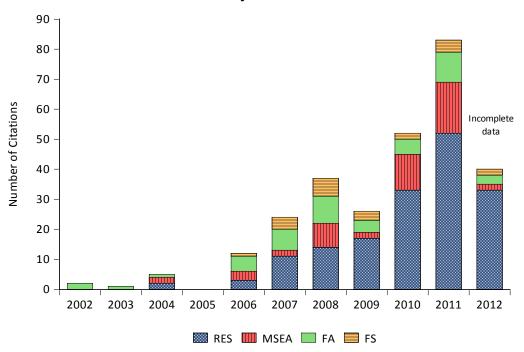
| YEAR | Total Number of working | | | MNB: source department for WP | | | | | | |
|------|-------------------------|-----|----------|-------------------------------|-----|------|----|----|-------|-------|
| | papers | | | | | | | | | |
| | CNB | NBP | Riksbank | MNB | RES | MSEA | FA | FS | Other | JOINT |
| 2012 | 10 | 30 | 8 | 8 | 1 | 5 | 1 | | 1 | |
| 2011 | 15 | 27 | 9 | 12 | 5 | 5 | | 1 | 1 | |
| 2010 | 15 | 8 | 12 | 12 | 5* | 6 | | | 2 | 1 |
| 2009 | 15 | 17 | 8 | 5 | 1 | 1 | 2 | | 1 | |
| 2008 | 14 | 9 | 9 | 9 | 4 | 4* | 1 | 1 | | 1 |

Note: Data on the number of working papers from respective central bank websites. CNB is the Czech National Bank; NBP is the National Bank of Poland, Riksbank is Sweden's Riksbank, MNB is Magyar Nemzeti Bank. RES is the research department and the other departments were previously defined. Other refers to external authors not on staff at the MNB. JOINT refers to working papers written by staff in more than one department, usually RES jointly with a staff member from another department. * Hence, the rows under the heading "MNB: source..." need not add up to the total number of WP for the MNB.

As shown in the bar chart below there has been an impressive increase in the number of citations of the MNB's work. Indeed, the chart points not only to a steady rise in citations since 2002 but that the creation of a separate research department, in 2008, has contributed the lion's share of the increase in citations. It is also worth noting that the research of the policy departments has also shown a tendency to rise alongside the increase in citations of the MNB research department. This is broadly suggestive of the positive spillover effects from research to policy analysis, and possibly vice-versa.

²⁸ This is double-edged sword. For example, some of the data for the NBP is influenced by the publication of working papers by outside visitors, or presenters at locally organized workshops. Nevertheless, this is an option that the MNB might also consider as a demonstration of its ability to attract research from external sources and possibly as a device to promote joint research with outsiders.

Citation Analysis of MNB Publications



Note: Based on data from RePEc for those MNB authors listed in their database. RES, MSEA, FA, and FS refer to the research areas in the MNB. The above data are based information available in October 2012. Hence, 2012 data are incomplete. See http://repec.org/.

Next, we examined the ranking of MNB research.²⁹ According to RePEc the MNB's research is ranked 4th in Hungary. This partly reflects the number of authors registered with the service (likely the most widely used of its kind).³⁰ Given the potential number of authors the MNB should encourage as many of its staff who engage in research to subscribe to this service (or the service listed in footnote 28) as this is a very effective way of disseminating MNB research.

Alternatively, one may want to measure research output by examining the ranking of authors according to a formula devised by the RePEc service that is dependent, among other metrics, on the number of downloads and citations of individual authors registered with the service (see Appendix). According to this metric only 3 of the researchers in the research department are among the top 25% of Hungarian authors. Some of this is due, of course, to recent hiring as it takes time for citations or other output measures to take effect.

²⁹ This includes both the research department as well as the policy departments.

³⁰ A similar service is the Social Science Research Network (<u>www.wwrn.com</u>).

Nevertheless, it is also the case, in recent years, four Senior Economists have left the Bank, three of whom are among the top 25% of Hungarian authors. The resulting loss of human capital is notable especially at a time when mature and highly relevant policy experience is most required.

In any event, we also found 4 members of policy departments among the top 25% ranking. Put differently, a total of 7 MNB researchers, out of a potential of 103 economists employed in 2011, or approximately 7% of potential researchers managed to make the top 25% list of authors.³¹

MNB Research Ranking in Hungary

| Rank | W.Rank | Institution | Score | Authors | Author shares |
|------|--------|--|-------|---------|------------------|
| 1 | [1] | Budapesti Corvinus Egyetem | 1.5 | 32 | 25.6 |
| 2 | [2] | Department of Economics, Central European University | 1.84 | 24 | 13.89 |
| 3 | [3] | Közgazdaság-tudományi Intézet, Közgazdaság- és Regionális Tudományi Kutatóközpont, Magyar Tudományos Akadémia | 2.33 | 40 | 29.55 |
| 4 | [4] | Összehasonlító Gazdaságtan Tanszék, Budapesti Corvinus Egyetem | 3.75 | 2 | 1.58 |
| 4 | [4] | Magyar Nemzeti Bank (MNB) | 5.71 | 31 | 26.02 |
| 5 | [5] | Matematikai Közgazdaságtan és Gazdaságelemzés, Budapesti Corvinus Egyetem | 6.38 | 2 | 1.92 |
| 5 | [5] | Közgazdaságtudományi Kar, Pécsi Tudományegyetem | 6.51 | 6 | 6 |
| 6 | [6] | Közgazdasági és Regionális Tudományok Intézete, Közgazdaságtudományi Kar, Pécsi Tudományegyetem | 7.06 | 2 | 2 |
| 6 | [6] | Agrárközgazdasági és Vidékfejlesztési Tanszék, Budapesti Corvinus Egyetem | 8.6 | 6 | 5.43 |
| 6 | [6] | Befektetések és Vállalati Pénzügy Tanszék, Budapesti Corvinus Egyetem | 11.21 | 4 | 2.89 |
| 6 | [6] | Költségvetési Tanács Titkársága | 11.49 | 1 | 0.95 |
| 7 | [8] | Labor Project, Central European University | | 1 | 0.48 |
| 8 | [7] | Keleti Károly Gazdasági Kar, Óbudai Egyetem | | 11 | 10.33 |
| 9 | [9] | Pénzügyminisztérium, Government of Hungary | 13.02 | 2 | 1.4 |
| 10 | [10] | Department of Public Policy, Central European University | 14.81 | 3 | 2.5 |

Note: Data from RePEc (http://repec.org/). W. Rank refers to a weighted ranking. Note also that CEU and MNB share some authors. Data as of October 2012.

³¹ Technically, the figures shown are biased downward since not all staff members are able to devote 100% of their time in research while not all listed staff work full-time (i.e., FTE or full-time equivalent). If we instead use the FTE weighted by research time then the total number of 'research staff' falls to 15.54, in 2011. This is likely an underestimate of the amount of FTE devoted to research. Hence, the figures used here should be considered only as illustrative. The MNB provide us with alternative calculations of research impact. We have included these in the appendix. Regardless of the sophistication of the calculations the broad conclusions drawn from the above data remain largely unaffected.

A final perspective on research at the MNB is supplied by the Table below, obtained from the same source as above. The table suggests, for example, that while the Riksbank, an institution explicitly mentioned in the MNB's research Strategy document that the MNB wishes to emulate, is third in the national ranking its international ranking is far higher than that of other central banks in Central and Southern Europe. If the MNB aspires to conduct research at the level of the Riksbank then it still has some way to go. Indeed, in the interim the MNB might aim to catch-up with other central banks in the region.³²

A Selection of Top Central Banks in Research

| | Top 25% Central Banks | Top %5 Top Level Institutions | Top 12.5% European Union | National Ranking |
|--|--------------------------|----------------------------------|-----------------------------|---------------------|
| ECB | 4 | 39 | 6 | n/a |
| Riksbank | 11 | 132 | 45 | 3 |
| Banca d'Italia | 9 | 97 | 33 | 2 |
| Bank of Canada | 15 | 143 | n/a | 9 |
| Bank of England | 18 | not ranked | 63 | 15 |
| Bank of Finland (Suomen Pankki) | not ranked | not ranked | 160 | 1 |
| Austrian National Bank (Oesterreichische Nationalbank) | not ranked | not ranked | 177 | 6 |
| Czech National Bank (Česká Národní Banka) | not ranked | not ranked | 145 | 1 |
| National Bank of Poland (Narodowy Bank Polski) | not ranked | not ranked | not ranked | 3 |
| Bank of Greece | not ranked | not ranked | 242 | 3 |
| National Bank of Romania (Banca Nationala a Romaniei) | not ranked | not ranked | not ranked | 9 |

Note: Data from RePEC. See Top 25% Central Banks:

http://ideas.repec.org/top/top.central.html, Top %5 Top Level Institutions:

http://ideas.repec.org/top/top.toplevel.html, Top 12.5% European Union:

http://ideas.repec.org/top/top.eu.html.

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³² It was pointed out to us that data that compare central bank research performance in the manner done above mixes 'stock' and flow' effects because the performance of one central bank today is likely to be history dependent. This is true. However, since all central banks, no matter how long a research department has been in existence, suffer from turnover, changes in emphasis and strategy, there seems to be no obvious or compelling way to identify one type of influence on the rankings over another.

4. Resources

In the previous evaluation by Halpern and Mester (2008), it was noted that the MNB's aim was to expand the Research Department to about 10 PhD economists (from 5) over the next five years. They regarded this plan as both "ambitious" (given the difficulties facing MNB in hiring) and "necessary" (to get the staff size up to a critical mass).

Currently, the Research Department has 8 members and there are 2 vacancies. We regard a group of around 10 PhDs who spend most of their time on longer term academic-style research as a reasonable target for the MNB, given the requirements implied to get a critical mass, and in relation to the size of the policy departments (around 85 economists).³³ However, whether a Research Department staffed by 10 PhDs is sufficient to meet the objectives of the research strategy or not crucially depends on how much time they can devote to research, whether the topics and methods of their research projects are similar or very different, and on the research activities of other departments.

Although the targeted size of the Research Department seems reasonable, we think there are a number of reasons for concern.

- Hiring researchers is a complicated process, for all central banks. Often the outcome is a smaller number of new recruitments than planned. The Research Department at MNB seems to have around 2 vacancies on average. This suggests that the department now and then should try to hire *more* researchers than their budget seems to allow; since the probability that the efforts will be completely successful is fairly low. It is typical for academic departments in North America, for example, to caution applicants that hiring is subject to 'budget approval'. A similar caveat could be used by the MNB.
- The Research Department is expected to devote a considerable part of its time to policy-oriented work (40% 60%, we get somewhat different estimates from

³³ At the Swedish Riksbank, the Research Department is about 50% larger than at the MNB, but so is also the total amount of economists employed by the policy departments.

different sources).³⁴ This means that only around 4 FTEs (50% of 8 PhDs) are devoted to longer term research, which is too little to establish a critical mass. We, therefore, suggest that the Research Department obtain more resources, or that the share of their time that is expected to be devoted to policy work be reduced, or both. The Research Department's recent efforts to increase their support to and cooperation with the policy departments should be complimented and may have been necessary to establish internal credibility for the Research Department. But the current allocation of time to other activities than longer term research is probably not sustainable in the long-run. We fully understand that the resource constraint for the MNB is binding, but think that the resources allocated to longer term research should increase in relation to the volume of resources devoted to policy work – particularly if the MNB wants to achieve its goal to become an influential central bank in Europe for the quality of its research and policy advice.

- Apart from the *size* of the Research Department, there is also a question about its composition. The department has recently lost three researchers with high capacity to publish research in good academic journals.³⁵ Although a certain turnover must be expected, the loss of good researchers suggests that the MNB should try to hire one or two well established researchers and not only fresh PhDs.
- The productivity of the Research Department could be raised by recruiting one or two research assistants. This was a suggestion made also by Halpern and Mester (2008). In the short run, this may be more important than hiring more PhDs than the target of 10 (i.e., a counter-argument to what we presented above).³⁶
- The number of researchers at the MNB is small in relation to the research strategy and a critical mass not only because the absolute size of the Research Department is small, but also because there are few PhDs producing applied research at the other departments. As pointed out in section 3 above, our impression is that the level of technical competence of non-PhD staff at the MNB is high. But we still recommend

³⁴ When we write about "policy-oriented work" at the *Research* Department, we mean all work that is not related to a report intended for publication in an international academic journal.

³⁵ Ákos Valentinyi, Péter Karádi and Katrin Rabitsch.

³⁶ We were informed by Dr. Péter Benczúr, Head of Research, during our second visit, that an advertisement for an R.A. position was imminent.

that the shares of PhD economists be raised at the policy departments, both in order to raise the technical capacity even further at those departments, and as a step to promote better integration of research and policy work. First, because the hiring of Ph.Ds in central banks in policy areas is the norm. Second, the research required to underscore good policy advice requires more than just good technical skills. It must also consist of a certain level of maturity, a capacity for innovative thinking particularly useful in times of crisis, and a broader understanding of the interaction of economic analysis and quantitative skills that are the hallmark of a Ph.D. education.³⁷

- departments is desired (and we think it is), it is not sufficient to increase the supply of initiatives from the Research Department. The demand for co-operation from the policy departments must also increase and be encouraged. A larger share of PhDs at the policy departments could be an important step in that direction. We understand that the MNB is currently making efforts to support some economists with a Master's degree who want to enter a Ph.D. program at a domestic or foreign university. But there is also an outflow of good MAs and PhDs, so more should be done to ensure that the MNB has enough human capital for both short term policy work and longer term research.
- The amount of resources allocated to longer term academic-style research in relation to applied research and policy work should be increased, not only at the Research Department (as suggested above), but also at the level of policy departments. Such a re-allocation in the direction of "fewer but higher quality work" was previously suggested by Halpern and Mester (2008; their recommendation no. 5). The total volume of output from the economists at the MNB is truly impressive: unpublished internal policy material, reports published in the Bulletin, Occasional

³⁷ It may be useful to point out that the MNB is not alone in facing such problems. The external review of the Bank of Canada's research activities (Meyer et.al. (2008)) raises the same issue and suggests that MAs be teamed up with PhDs. Of course, this can only work if the pool of PhDs is sufficiently large. The Bank's response in this connection is worth quoting: "The Bank ...believes that the high calibre of its MAs has been one of its great strengths....many of the Bank's best researchers come from the MA ranks,...".

Papers, Working Papers, teaching, etc. But we also share the worry expressed by Halpern and Mester that quantity has been given priority over quality.

We believe that many of our suggestions on how the amount of resources allocated to longer term research can be increased could be implemented by the Heads of the different departments, preferably relying on a coordinated strategy. Support for this strategy from the governors and, perhaps, the MC would be needed. Many of our recommendations do not require that the total amount of resources spent by the MNB be increased. This means that the implementation of such a research strategy could be the responsibility of the department Heads. Still, it is the responsibility of the top management to provide the right incentives for good analysis and co-operation.

During our interviews, we received comments suggesting that resources for both applied and more long-term research at the policy departments are limited because the policy makers give higher priority to material that can provide more direct input to the policy makers. Our discussions with the deputy governors, on the other hand, suggested that they would have welcomed a smaller volume of policy analysis if this would have made it possible to evaluate new methods more carefully before they were included in the policy documents. One may interpret this as consistent with our suggestion about "less quantity, more quality". In any case, our findings support the view expressed in this Report that the decision about how many resources to allocate to research is essentially the responsibility of the Heads of department, but also that the Board and the MC have to send clear signals to the department Heads about the importance of quality in the bank's analyses in relation to quantity.

5. Governance

Our description and evaluation of the research activities at MNB so far suggest that the output from the researchers (and the economists in general) is high in relation to the size of the staff, if output is measured, e.g., in terms of the total number of written reports. The total resources in terms of person hours devoted to applied and more academic-style research also seem appropriate. But we advocate, in line with a recommendation given previously by Halpern and Mester (2008), that the MNB in the future put more emphasis on quality rather than quantity: more resources should be devoted to long-term, academic-style research. Fewer applied research projects would allow deeper analyses in some of the projects.³⁸ This would make it possible for the MNB staff to make more innovative contributions to the methodological development or to policy analyses. This would be beneficial both for MNB's policy-making and strengthen MNB's role within the European central banking community – in line with the research strategy.

At the same time, we support the efforts in recent years to increase the support from research to policy. In order to produce both better research and better policy advice with given resources, the efficiency of the research activities has to increase. This makes it important to discuss alternative principles for the governance of research efforts at MNB.

Top-down vs bottom-up. We agree with Halpern and Mester (2008) that high-quality research requires an environment where "researchers are expected to develop and progress on their own agendas", i.e., a so-called bottom-up approach. A top-down approach, where senior management assigns research projects to staff, is more appropriate for the applied research intended to support policy analyses than for longer term academic-style research. But since we (like Halpern and Mester) suggest that the ambition should be to increase the share of high-quality (and therefore more academic-style) research, the top-down and bottom-up approaches to some extent have to be combined, in order to increase the probability that the objectives of the research strategy will be fulfilled. Currently, the research agenda for the longer term research carried out at the

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³⁸ Note that we are not suggesting that research necessarily should get more resources, at the cost of less policy work. We are advocating a different use of the resources allocated to research today: a stronger focus on high-quality research at the cost of fewer research projects.

Research Department is entirely determined by a bottom-up approach while the agenda for the applied research is determined through a rather complicated and drawn-out process involving a Research Forum that meets three times per year. Although the Forum offers good opportunities for exchanges of ideas and views across departments, we think that it should be possible to better integrate the processes for determining the research agendas, and to make the decision processes (especially regarding applied research) more efficiently.

Management and research staff could meet just once a year to discuss and decide what projects that should be given the highest priority and also set out explicit targets for each project: should it be reported as a Working Paper intended for publication in an international journal? Alternatively, in the form of an article in the Bulletin, in the Inflation or Financial Stability Reports, or in some other form? Is the list of planned publications short enough to be realistic and to ensure high quality of the projects? It should be noted that the purpose of a new process should be to *increase* the share of high-quality research, so it is important that the bottom-up approach for the academic-style research is not replaced by routines that make research more oriented towards short-term policy analyses.

Co-operation across departments: need for stronger focus, explicit targets and incentives. Before the discussions about the research agenda focus on individual projects, we suggest that there ought to be more discussions (than now) about research direction. More specifically, and in relation to the research done at other European central banks, what are the questions where MNB staff seems to have a comparative advantage? And, given the economic situation in Hungary, what are the questions that would be most interesting to focus research on from a policy perspective? Answering these questions would be useful before the list of individual research projects is determined. Again, we do not consider such discussions about the research direction as necessarily being in conflict with the need for a bottom-up approach for longer term, academic-style research (although it could be; depending on how well top and middle management understand the nature of research). It is likely that the researchers can produce a larger set of ideas about possible research projects through the bottom-up approach than they will eventually be able to realize in the

form of publishable papers. The selection of projects from that list will partly be a gradual process that depends on unexpected results and difficulties in the research projects, as with all research. But the selection *ex ante* should also be influenced by more strategic considerations about the research policy.

We have suggested above that the quantity of applied researched should be decreased, to allow more focus on high-quality research. We have also noted that resources actually devoted to longer term research at the Research Department may have to increase (given the difficulties to fill all the vacancies continuously and the need for a critical mass). Changes in these directions may seem to be in conflict with the objective of increased cooperation between the Research Department and the policy departments. But we think that the conflict may seem more troublesome than it is. It should be possible to formulate more explicit goals for the applied research at the policy departments, and for the policy support from the Research Department, so that the co-operation becomes more fruitful than it is today. If so, the value of both the longer term, academic-style research, and the contributions to policy from the researchers (at all departments) could increase.

One way of formulating more explicit goals for the applied research and for the cooperation between the Research Department and the policy departments could be to give clear priority to a few joint applied research projects that are believed to be especially relevant for policy. Such projects could contribute to the MNB's understanding of, for instance, macroprudential policy, implications of changes in financial markets regulation for monetary policy, short-term forecasting of both macroeconomic variables and indicators of financial stability, methods for analyzing the consequences of structural breaks, to mention just a few policy-relevant questions that need to be analyzed with the best available scientific methods.

It is also important that the Governor and the Deputy Governors provide clear incentives for department Heads and the researchers (at all departments) to co-operate. Incentives could take the form of wage bonuses, but also of special attention paid to the joint projects at meetings with the Executive Board and the MC.

We get the impression that the economists in the policy departments feel that they do not have enough time for long-term projects and methodological work, while members of the Research Department feel that they are under-utilized by the policy departments. This suggests there is room for more cooperation, for the formulation of more explicit goals, and that successful cooperation should be rewarded.

Modeling strategy. Given the many different kinds of policy questions that a central bank has to deal with, the analytical tool box must consist of a "suite of models"; no single model or methodological approach will be able to shed light on all relevant questions. Yet, the resources spent on applied and longer-term research can probably be used more efficiently if there could be more agreements across departments on which types of models the MNB should apply and develop. For instance, we were told that the cooperation between the Monetary Strategy and Financial Stability Department is limited by the fact that the departments focus on different variables: prices in the former case and quantities in the latter. As is the case at many other central banks, the modeling approach also differs between these two departments. Partial equilibrium models are relatively more common in financial stability analyses, while general equilibrium models are dominating in analyses of monetary policy. The two departments admittedly have to focus on different policy questions, but general equilibrium mechanisms imply that monetary policy will influence financial stability and that macroprudential policy will influence monetary policy targets like inflation and unemployment. There should therefore be at least some overlap between the models used by the different departments. Another argument why there is a need for discussion about modeling strategy across departments is that it is hard for MNB to make progress on model development if resources are spread over many different model projects. The choice of modeling strategy is thus an example where a more "top-down" approach to the research strategy (for applied research) could be useful. The BSCBS can be used to expose the staff to different modeling strategies that modern science can offer and to help in the selection of modeling strategy.

Organization of research within the departments. In addition to questions about how to plan research activities across departments, there are important governance issues about the organization of research within departments. In the Research Department, where the staff

is expected to focus on longer term, academic-style research, and the average share of the time devoted to such projects seems to be around 50%, there still seems to be considerable variation in the assigned tasks within the group. It is evident (e.g., from the list of publications and also from our interviews) that some researchers spend almost all their time on research intended to be reported in international journals. Others seem to spend much less than 50% of their time on such type of research. On the one hand, a certain degree of specialization within the Research Department is probably desirable. Some researchers have a comparative advantage in policy work and in achieving the department's target to increase cooperation with other departments. Other researchers have a comparative advantage in high quality academic research and can make contributions to the methodologies applied in the MNB's analyses and to the MNB's international reputation and network. On the other hand, given the need to have a critical mass of researchers that focus on long term research, and the need to increase the share of such research in relation to applied research, we see a risk that some members of the Research Department become too involved in policy work. We suggest that the Head of the Research Department and the staff jointly formulate explicit targets for publications in international journals (and perhaps also for contributions to policy analyses) for all members of the department. The purpose of such targets would not be to facilitate evaluations by outsiders (e.g., top management at MNB or external researchers), but rather to improve the department's internal planning and evaluation of their efforts. For the MNB as a whole, the department's total contributions in the forms of journal articles and policy support are of primary interest, but for the environment at the department (to achieve the critical mass) the differences between the members may also be important.

In the policy departments, there is also some specialization in the sense that some staff members devote considerable time to applied research while others do not. We have no reason to make strong recommendations about any changes in this regard. It may be important to have some internal rotation so that all staff members get some time to do some applied research, in order to maintain their human capital. But we realize that human capital can be built in many different ways and that the central bank needs expertise that can be developed in other ways than through research. Moreover, not all staff members are

equally skilled in the research function. Nevertheless, it is not clear to us why the different departments have chosen different ways of organizing their applied research. It may be useful to compare the advantages and disadvantages of the different solutions. Perhaps the productivity and efficiency of applied research could be increased if the departments followed more similar principles. A more strategic planning of applied research across the departments (as suggested above) could also be facilitated by a less heterogeneous way of organizing the applied research.

A strategy for publications. The discussion in this section concerns the issue of how to increase the efficiency in the use the resources devoted to research. Clear objectives for the output of the research projects make it easier to evaluate research and can therefore lead to higher efficiency. "Publication in high-prestige international journals" is one of the means of implementing the objectives in the Research Department's strategy. We generally support the plans in the strategy, but since actual performance is lower than expected, either performance needs to be improved, or the strategy revised, or both. We see several reasons for a revision. First, the publication strategy only covers the Research Department although research is in fact also produced at the policy departments. Second, the rather detailed targets in the publication strategy do not seem to play a central role in practice even at the Research Department.³⁹ Third, the publication strategy does not include any explicit targets for Occasional Papers and Bulletin articles.

Before a research project is reported as a Working Paper, it goes through a careful refereeing process, irrespective of whether the paper is intended to be submitted to an international journal or not. The refereeing process seems to give particular value-added to those research papers that are *not* intended for publication in international journals. A publication in the Working Papers is viewed as a signal about the researcher's competence and productivity, and in this respect provides useful information both for the individual

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³⁹ We are aware that the Research Department carefully evaluates the publications of all staff members and of the department as a whole (and also makes comparisons with other central banks). The quantity and quality of publications also matters for e.g. promotions. But the relatively low output of publications in academic journals – in relation to the targets of the strategy – has not meant that more resources (man-hours) have been devoted to longer-term academic-style research. This is why we conclude that the detailed publication targets do not seem to play a central role in practice.

researcher and for senior management. The Working Paper series also seems to have a high status in Hungary outside the MNB.

Nevertheless, we see room for improvement regarding the MNB's strategy for its publications. Not all Working Papers are submitted to international journals. Not all papers that are submitted to international journals are first published as Working Papers. The refereeing process may be overly careful for the papers that will anyhow be refereed by international journals in a later stage. The refereeing process for the Occasional Paper series is much less careful, although it seems unclear why some papers are published in the Working Paper Series and others in the Occasional Paper series. Some Occasional Papers are in English, some in Hungarian, while all Working Papers nowadays are published only in English. Papers in the Working Paper Series are mostly produced by economists at the Research and Monetary Strategy Departments, while Occasional Papers and Bulletin articles are mostly produced by economists at the departments for Financial Analysis and Financial Stability. There does not seem to be any clear strategy behind these practices.

One possibility would be to publish *all* research reports that are *not* intended to be submitted to international journals in the Occasional Paper series, and have a more careful (internal) refereeing of those papers. Then the Working Paper series could be reserved for papers (and all such papers) that are submitted to international journals, and the refereeing process at MNB for such reports could be simplified. Like Halpern and Mester (2008), we think that a larger part of the applied research (from all departments) should be submitted to journals for outside publication, and hence published in the Working Paper as a first step.

A publication strategy is also needed for the applied research that is reported in the Bulletin and in the Inflation and Financial Stability reports. Parts of the content of the latter reports are quite technical and probably too complicated for the average reader and perhaps also for the MC. Such analyses could preferably be published in the Bulletin or the Occasional Paper series, after proper refereeing. Overall, we see a need for a clearer and more deliberate strategy for the publications of applied research, a strategy which would make it easier to target different publications to different audiences and, at the same time,

facilitate the planning and evaluation of the research agenda. More clear principles for which papers that are published in which series could support the planning of the research agenda that we discussed above. If it can be determined right from the start of a research project whether it is intended to be submitted to an international journal or not, it would probably be easier to allocate the right amount of resources *ex ante* and to evaluate research *ex post*.

Internal rotation of staff, and the role of the BSCBS. One way to promote more cooperation between the Research Department and the policy departments, and at the same time increase the resources devoted to longer-term research, could be to have a formalized program for visitors from the policy departments to the Research Department. For instance, each year there could be one visitor per department from the departments for Monetary Strategy, Financial Analysis and Financial Stability. The visit should preferably be as long as one year to make it possible for the visitor to at least produce a first draft of a Working Paper (possibly co-authored, and possibly a result of work initiated before the visit). The one-year visit may also be divided into 2 – 3 visits of 4 – 6 months if that would be suitable for the research project in question. The topic of the project should be determined by the Head of the policy department (to ensure policy relevance), but of course after discussions with the individual researcher (to make sure that there is a joint interest in the project) and with the Research Department (to increase the probability that they can offer good research conditions).

While there could also be benefits from visits from the Research Department to the policy departments, we are less positive to such a program, for two reasons. First, the MNB's strategy is to contribute to longer-term, academic-style research produced by central banks in Europe, and the MNB's total resources devoted to such research are currently rather small. It is questionable whether the MNB achieves the critical mass today. Second, academic research requires the possibility for the individual to make long-term research plans and to concentrate most of her time on the research projects, which is difficult to combine with visits to other departments. However, if the Head of the Research Department and the individual researcher consider an alternative career within the MNB as a probable outcome sooner or later, then a visit to a policy department may of course

provide useful information about whether such a move is in the individual's and the Bank's interest. In fact, this is often one role that the Research Department plays at central banks: to recruit good researchers that can be gradually more involved in policy analysis and sometimes eventually move to a position closer to policy. But we regard the MNB's current situation as more characterized by a lack of researchers, than a lack of policy economists.

According to the updated strategy for the Research Department, one objective of the BSCBS is to continuously increase "the skill level of the MNB's analysts in an organised way". Both the Research Department and the policy departments (in particular the Heads of the departments, of course) can contribute to a better result in this regard. The departments could increase their efforts to formulate the needs for courses that are highly relevant for current policy work. The School obviously has the ambition to supply such courses just as well as courses that can raise the competence level more generally about new methods that are useful for central bank economists. But the policy departments also have to reserve enough time for key staff members so that at least some of them can follow a whole course without being interrupted by unexpected demands for policy analysis. This is a common problem at central banks, but it is important that senior management considers the bank's long run need for human capital, and the problem should be easily solved with better planning.

Interaction between the researchers and top management. As pointed out in the introductory section, we agree with Halpern and Mester (2008) that "it is the longer term, academic-style research that forms the basis for policy analysis". But this implies that there should be regular interaction between the researchers (in all departments) and the members of the Executive Board and the MC. It is probably not sufficient, either for short-term policy purposes or the long-term research strategy, that members of the Board and the MC are invited to research seminars that are open to all economists at the MNB. Both applied and longer term research projects (that have been given priority in the annual planning process) could also be reported at regular Board and MC meetings. In addition, it would presumably be useful, now and then, for the Board and the MC to hear the views from researchers on some difficult policy issues, irrespective of whether the views can be

based on some on-going research projects or not. It is mainly the responsibility of the Board and the MC to take initiatives to this type of exchange.

6. Conclusions and recommendations

The evaluators were asked to assess the quality of the MNB's resarch output as well as the relevance of the research activities for the strategic goals of the bank. Our conclusion is that the research conducted at MNB generally has both high quality and strong policy relevance. The best parts of the Research Department's long-term research get published in prestigious international academic journals. The applied research is also of high analytical quality. Some of it is reported in Working Papers, like the longer-term research, some in Occasional Papers, Bulletin articles, internal memos or Inflation and Financial Stability Reports. The research strategy is based on principles that we consider to be "international best practice". The standard of the analyses reported in Inflation and Financial Stability Reports appears broadly similar to material in reports published by other central banks.

High-quality research and policy analysis at MNB is important both for economic policy-making in Hungary and for fulfilling the MNB's role in the ESCB. The subjects covered in the reports of both applied and longer-term research are highly relevant for policy-making. Some subjects concern problems that Hungary and MNB share with other central banks, but part of the research activities are also more directly tailored to the policy-needs of MNB in particular. Good research that is valued by outsiders too is a sign of central bank competence and contributes to credibility. It is thus important, for many reasons, that the MNB does not succumb to the temptation to produce only short-term applied research but continue to follow the research strategy laid out in 2008 (updated in 2011).

One of our main (but so far rather implicit) messages is that conflicts between short-term applied policy work and longer term academic-style work often are overstated. Most central banks, including the MNB, devote relatively few resources to longer term research, in relation to the resources devoted to analyses of current issues, applied research and other forms of input to the policy decisions. Furthermore, the analytical level of the material that policy makers require for their decisions nowadays (i.e., the requirements of modern central banking) is quite high, so there is a large potential for academic-style work to be very useful. We therefore believe that it was a desirable, forward-looking, and important step taken by the MNB to create a separate Research Department in 2008. We

are also impressed by that department's efforts since then to produce both research of high international relevance and quality, and support for the other departments' applied research.

The MNB is thus in our view on the right track in pursuing academic and policy relevant research, and the strategy chosen by MNB follows a trend that is evident among central banks in both the advanced and emerging market economies. Nevertheless there is, of course, always room for improvement. The number of papers published in international academic journals is somewhat lower than expected, both in relation to the MNB's strategy and in relation to other reasonable benchmarks. This is hardly surprising given that the Research Department is quite young. Furthermore, the quality of the best papers is very high, which shows that research at MNB has good potential output. But the output of the Research Department reflects that the resources devoted to long-term research are not quite sufficient to constitute a critical mass. We regard the total resources devoted to applied and longer term research at MNB as roughly appropriate. The total volume of research activities in terms of published Working Papers, Occasional Papers, etc. also indicates good productivity. But we recommend that there should be a reallocation of resources at all departments: the volume of applied research should be lowered so that the volume of high-quality research (both applied and more long-term academic style) can be increased. The Research Department either needs to devote a larger share of their resources to longer-term academic-style research, or hire more researchers, or both - to achieve a critical mass. At the same time, co-operation between the Research Department and the policy departments should be increased even further. We believe this can be achieved and the efficiency of the research efforts thus increased through certain changes of the research strategy and its implementation.

The co-operation with CEPR, the BESS Seminar Series and the BSCBS strengthen both MNB's international relations and the relations with academic institutions in Hungary. The Research Department is also involved in many other external activities that support MNB's influence on research and policy in Hungary and Europe. But these "outreach" activities also require resources, and to maintain good external relations in the long-run the most important task is to raise the quality of the applied and more long-term research within the

MNB (in line with the research strategy and the recommendations in this report). Resource constraints may make it necessary to cut down on the external activities somewhat and temporarily, to strengthen the focus on high-quality research, but we would like to stress that we see the internal and external work as complementary in the long run.

We summarize below what we feel are some changes that would benefit not only research at the MNB but also improve the MNB's standing in policy analysis (e.g., among its peers in the European central banking community). We would like to stress that we also support many of the recommendations given already by Halpern and Mester in 2008. We recommend both the management and the staff at MNB to look at the (whole) report by Halpern and Mester now and then; the report contains many valuable insights about the role of research at a central bank, insights that both management and the rest of the staff (also at other central banks) probably need to be reminded of (for instance because there is some turnover in both categories of employees).

Recommendation regarding the strategic objectives:

1. The first strategic objective of the Research Department is to develop the department into an academic group known in Europe – in order to contribute to the central bank's credibility and influence on the euro system. While we support that objective, we think that the strategy should be clarified to include a more explicit statement recognizing that research not only contributes to the maintenance of central bank credibility and among its European peers but, in fact, is also a strategy that supports the development of useful and high quality policy advice. (This is the second objective in the strategy, "strengthening of the economic policy decision-making process at the MNB".)

Recommendations regarding means of implementing the objectives:

2. The publication targets in the current strategy for the Research Department are based on the objective that the department has 10 research positions, which is regarded as a "critical number required for forming a well-functioning research group". In practice, the department often has two-three vacancies. This problem

must be handled in some way. One possibility would be to allow the Research Department to (temporarily) announce more openings than there are vacancies. It is not uncommon for economics departments in Universities to advertise positions subject to some budgetary approval restrictions or finding a suitable candidate with the right credentials. Hence, there need not be an iron clad commitment to hire more researchers than are actually required. Another way to approach the critical mass questions would be to increase the share of the time the researchers are allowed to focus on long-term projects (e.g., from 60% to 80%).

- 3. The productivity (in terms of academic quality and policy relevance) of both applied and more long-term research at MNB can be increased through more joint research projects between the Research Department and the policy departments. A set of institutions has been created to stimulate more cooperation: the *Forum*, reading groups and systems of research partners and networks. These have been useful devices to promote exchange of ideas. But the arrangements seem to us a little cumbersome and too time-consuming as presently constituted. The *Forum* also seems too much focused on individual research projects rather than the strategic research plans. One can instead envisage a single meeting where, given the limited research resources documented in this report, a *minimum* number of joint projects are undertaken. Only the very few that are highly likely to be successful and are viewed as particularly important for the MNB should go ahead. Hence, the program should be very competitive and the ultimate aim, beyond of course assisting with pressing policy problems faced by the MNB, should be both internal publications as well as publication in internationally recognized academic journals.
- 4. Another step towards higher productivity would be to formulate more explicit targets also for the applied research published as Occasional Papers, Bulletin articles, boxes in the Inflation and Financial Stability Reports, etc. When an applied research project is formed the expected output should also be expressed. Explicit targets *ex ante* will facilitate evaluation *ex post* and therefore lead to increased efficiency.
- 5. Staff, whether in the research department or in the policy departments, should be encouraged to publish their research in the MNB-WP series. This means that Heads

of department should permit some time for revisions to existing submissions in response to referee reports. In addition, the Editor(s) of the MNB-WP should be encouraged, when soliciting referee reports and in their communications with authors, to assist with revisions with an eye to eventual publication, preferably in an internationally recognized outlet. Together with recommendations 3 and 4, the recommendation that more applied research should be published as Working Papers lead us to repeat the following recommendation from Halpern and Mester (2008): "The senior management should consider reducing the very large number of applied research projects the applied researchers are expected to complete. This would perhaps yield fewer but higher quality work, which would benefit the MNB in the long run."

- 6. The output of MNB research can also be enhanced if the policy departments (referred to here as MSEA, FA, and FS) invest in a concerted attempt to employ more PhDs. This too would go a long way to improving the "...performance of euro area central bank functions." (MNB 2011, section 1.1). One potential device to accomplish this objective is to rely in part on the Visiting PhD student program as a means of assessing and inciting potential future analysts and researchers to be employed at the MNB. Finally, hiring more PhDs will also improve the capacity of the MNB to resume development of a menu of models, including DSGE modeling or other forms of modeling used by several central banks.
- 7. Although the department Heads have the primary responsibility for creating "fewer but higher quality work" and more co-operation between the Research Department and the policy departments, the Board can also support such a development more actively and provide the right incentives. With more of the research reports published in the form of Working Papers (recommendation 5), a larger number of PhDs at the policy departments (recommendation 6), stronger focus on a few high-priority joint research projects across departments (recommendation 3) and more explicit targets also for the applied research (recommendation 4), we expect to see much more cooperation between all the departments in both applied and more long-term research. Such a development could also be further stimulated, e.g., by offering a 'best paper' award as well as recognition, based on research output that

stems from joint projects between the research department and policy departments. Vehicles should be developed for regular, albeit infrequent, direct communication with the MC. This would also show that academic research contributes to a stronger basis for policy decisions. The MC thus ought to devote a little more time to relying on and understanding the usefulness of MNB research, particularly when it is in the form of working or occasional papers or Bulletin articles. We repeat one more of the recommendations by Halpern and Mester (2008): "Senior management should meet with the researchers periodically to get an update on research projects and to give the researchers some insight into important policy issues."

8. The BSCBS seems to operate successfully. It offers staff at the MNB a unique opportunity to develop essential skills that contributes to enhancing the quality of policy relevant research. The level of instruction, quality and value of the lectures is high. Nevertheless, senior management ought to, at least once a year, have a formal discussion, together with the Heads of departments, to review the strategy of the School as it pertains to the type of courses being offered as well as the range of high profile academics that are attracted to Budapest. The Head of the MNB research department, together with the Director of the School, ought to consider a strategy to develop more programs run jointly with sister institutions such as the Joint Vienna Institute, the Euro Area Business Cycle Network, and the Centre for Central Banking Studies (Bank of England). The School might also consider making more explicit on the website that it aims to fill a niche among central bank staff in developing and emerging markets. Indeed, the MNB should consider developing a short 'prospectus' that interested readers and potential students can examine.⁴⁰ At the moment, the 'output' of the School is spread through various pages on the MNB's English language website. Finally, the Hungarian version of the BCSCB's website could be improved. While the potential audience of the School is overwhelmingly Englishspeaking the objectives and accomplishments of the School should also be summarized in Hungarian. More generally, a concerted attempt should be made to

⁴⁰ During the January 2013 visit we were given a brochure announcing the courses and promoting the BSCBS. We were told that the document can be downloaded from the MNB's website. However, as of January 13, 2013 we were unable to locate the file.

communicate to distinguished lecturers the capacity of MNB research. Future students at these individuals' Home universities are more likely then to be told that MNB research is a good place at least to begin a career. Paralleling this there should be more capacity to invite outside researchers to spend at least a week, if not more time, at the MNB. Many central banks (e.g., the Bank of Finland) combine a call for visitors (published widely) with strategic invitations for internationally recognized scholars to visit the MNB. Finally, as mentioned previously, the BSCBS can also serve as leverage to maintain and improve the modeling capacity of MNB staff.

- 9. The targets for the Research Department's publication may need to be clarified and simplified. The distinction between junior and senior researchers in the publication targets does not seem very useful in practice and should be clearer or dropped altogether. Moreover, rather than aim for the "prestigious or highly influential" publication, staff in the research department should be expected to publish at least one article in the MNB-WP per year with, say, one internationally recognized publication every two years.⁴¹ Consideration should be given to an assessment based, for example, on achieving 3 publications in 5 years in B+ journals. Allowances can be made, of course, for variations around such an objective (e.g., 1 A+ publication could be equivalent to 3 B+ publications). The MNB's existing journal ranking can be easily adapted to a ranking from A+ on down. The CL ranking (see footnote 9) offers one such example but there are others.
- 10. Research output might be advanced if the MNB hired, perhaps temporarily, research assistants with undergraduate degrees to contribute with some of the more mundane tasks that are often necessary before empirical research especially can be carried out. This was also suggested by Halpern and Mester (2008).
- 11. A more concerted attempt should be made to encourage researchers, for instance from peer central banks to engage in short-term visits, to the MNB. The objective of the research advisory program (three visitor weeks per year) has not been met. Researchers at MNB should also be encouraged to visit other central banks and

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⁴¹ One may argue that ideal outcome would be if all Working Papers were published in international journals. But for the foreseeable future we expect that *some* Working Papers will not meet the standards required by international journals, and that some even may be written for other purposes (as contributions to the policy analyses at MNB).

- universities. Indeed, one possible reward for researchers in policy departments might be to permit secondments for a few months to a central bank in European Union.
- 12. We suggest that the departments implement a formalized program for one-year visits from researchers from the policy departments to the Research Department.
- 13. The joint appointment of researchers with the Central European University is an excellent idea and could serve as a vehicle to ensure that the research department achieves capacity. We understand that there are barriers to achieving the research department's stated aim of 10 full-time researchers. Nevertheless, this vehicle ought to be encouraged and the MNB could possibly devote a few more resources to ensuring a smoother transition to living and working in Hungary, regardless whether potential staff are of Hungarian origin or not.
- 14. The Annual workshop, co-organized with the CEPR (referred to as the Macroeconomic Policy Workshops), is an excellent vehicle to communicate the quality of research and present a desirable 'face' to researchers and central bankers. It should continue. Nevertheless, some consideration should be given to also organizing a few *ad hoc* workshops or conferences on specialized or pressing topics. Not only is this another vehicle to convince the MPC of the spillovers from research to policy but the likelihood of more publications is also enhanced. For example, in 2007, one of the evaluators (Pierre Siklós) co-organized a workshop on the challenges faced by central banks on the eve of events that would transpire beginning the following year (see http://viessmanncentre.ca/frontiers-in-centralbanking/ and http://english.mnb.hu/Kutatas/academicconferences/mnben konf elozo/mnben mnben conference). Several of the papers were later published, in 2010, in a volume published by Cambridge University Press. Since 2008, we could only find 4 conferences, excluding the Macroeconomic Policy Research workshop (see http://english.mnb.hu/Kutatas/academic-conferences).

References

Caballero, R., J. Galí, L. Reichlin, and L. Servén (2012), "Research at the Bank of Spain: An Evaluation", January, http://www.bde.es/investigador/report_eval.pdf.

Freedman, C., P.R. Lane, R. Repullo, and K. Schmidt-Hebbel (2011), "External Evaluation of the Directorate General Research of the European Central Bank", http://www.ecb.int/pub/pdf/other/ecbresearchevaluationfinalen.pdf.

Garretsen, H., Neumann, M.J.M., and W. Perraudin (2012), "Assessment of the Bundesbank Research Centre",

http://www.bundesbank.de/Redaktion/EN/Downloads/Publications/Bulletins_and_surve_ ys/bundesbank_2012_research_centre_assessment.pdf?_blob=publicationFile.

Halpern, L., and L. Mester (2008), "Magyar Nemzeti Bank Research Evaluation Report 2008", 28 March,

http://english.mnb.hu/Root/Dokumentumtar/ENMNB/Kutatas/mnben research at the mnb/bank of hungary review final 5-27-2008.pdf.

Magyar Nemzeti Bank (2011), "Strategy of the Research Department: 2011 Update of the Original 2008 Document", internal document.

Meyer, L., M. Eichenbaum, D. Gale, A. Levin and J. McAndrews (2008), "External Review of Economic Research Activities at the Bank of Canada", http://www.bankofcanada.ca/wp-content/uploads/2011/05/ext-review.pdf.

Other documents consulted (selected):

Magyar Nemzeti Bank (2012), "Kutatási Fórum: Röviditett Jegyzőkönyv", 13 December, internal document.

Magyar Nemzeti Bank (2011), "Kutatási Fórum Első", 14 December, internal document.

Magyar Nemzeti Bank (2012), "Organisational and Operational Procesures of the Magyar Nemzeti Bank", 29 March.

Magyar Nemzeti Bank (undated), "Szervezetfejlesztés a kutatási munka erőteljesebb beágyazása érdekében".

Magyar Nemzeti Bank (2011), "A PhD képzésben való részvétel támogatásnak feltételei", October.

Magyar Nemzeti bank (2008), "Az Alkamazott Kutatás és Kutatás közötti együttműködés keretei".

Magyar Nemzeti Bank (2011), "A Kutatási szakterület stratégiája", December 21.

Magyar Nemzeti Bank (2010), "Az MNB-ben folyó kutatási tevékenység, kapcsolatok a tudomány szférájával", 11 February.

Magyar Nemzeti Bank (2012), "Egyensúly hiányok azonositása a Magyar bankrendszerben", 2 May, document prepared for the MPC.

Magyar Nemzeti Bank, Report on Financial Stability (various issues).

Magyar Nemzeti Bank, Quarterly Report on Inflation (various issues).