

**External Research Assessment of *De Nederlandsche Bank*
2010 - 2014**

by

Roel Beetsma
University of Amsterdam

and

Stefan Gerlach
Central Bank of Ireland

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1. Introduction

This report was commissioned by De Nederlandsche Bank (DNB) in the Spring of 2014. It summarises our assessment of the DNB's research activities over the period 2010 – mid-2014. In this report, research performance should be interpreted broadly; it does not only comprise the quality and quantity of publications, but also the impact on policy and on the research community itself.

Our general impression is that the Research Department is a well-managed and nice place to work. The staff we met spoke highly of the openness and informality by which it is managed and noted a number of improvements in recent years. They indicated that there is a stringent process of performance evaluation and progress relative to the annual research plan is monitored closely. Substantial efforts are made to insure input from policy areas in the annual research plan. The atmosphere is collegial, with staff generally collaborating well. There is considerable flow of research that appears to be undertaken to high standards of scholarship and scientific integrity.

Nevertheless, there is always room for further improvement and better use of the research potential of the staff. This report points to a number of issues that the senior management may wish to reflect on. The most important ones are (i) the very limited mobility of researchers within the Bank; (ii) the limited interaction between staff in research and policy areas; (iii) the determination of the annual research plan; and (iv) whether to adopt differentiated publication objectives for members of the research staff depending on their seniority and field of work.

Our assessment is based on information we obtained directly from DNB and from its website, as well as a large number of interviews with individuals working within the Research Department, in other departments of DNB and outside DNB.

The remainder of this report is organised as follows. Section 2 summarises DNB's research goals and the organisation of DNB's research. Section 3 summarises the achievements of the research department in the various relevant dimensions. Section 4 provides and discusses our

recommendations. Finally, the Appendices contain the mandate for this evaluation, the list of people interviewed, the organization chart of the Economics & Research Division and information about citations of DNB's researchers.

2. Research at DNB: organisation, goals and evaluation criteria

Unlike many other central banks, DNB has organised most its research in a separate department. Some research also takes place in other departments, but still falls under the supervision of the Head of Research. There are occasional collaborations between staff from the Research and other departments. The Research Department, the Monetary Policy Department and the Economic Policy Department together form the Economics & Research Division (see Appendix C). The Research Department comprises 25 – 30 researchers, plus a number of support staff, including statisticians. The organisation of the Department is flat in the sense that all researchers report directly to, and have their annual performance evaluations with, the Head of Research. Researchers have on average about 60% of their time for research. The remaining time is devoted to a variety of other tasks, including the preparation of policy briefings, assisting in the preparation of meetings, etcetera. The Research Department also employs a number of staff for the development and maintenance of models, the main one being the DELFI model, which is used for biannual macroeconomic forecasting of the Dutch economy.

Quoting the website of DNB, the purpose of research activities at De Nederlandsche Bank is to:¹

- i. provide research results relevant for the formulation of policy advice on monetary and supervisory policies;
- ii. maintain and use econometric models in order to construct economic forecasts and projections and compare the impact of alternative policy choices;
- iii. communicate with the academic and research community, for example, through the

publication of research results in peer-reviewed scientific journals and by participating in and organising of research conferences and workshops.

While the previous research assessment advised that two performance metrics commensurate with the objectives of producing policy-relevant research and publishing research of high academic standing be adopted, individual researchers are still judged almost entirely on the basis of their publications in scientific journals. To this end, DNB uses its own journal classification system, although the classification is very similar to the one used until recently by the Tinbergen Institute, especially where it concerns the highly-rated journals. As a rule of thumb, a researcher should publish one article a year in what has been defined as a B-journal.

Research is based on the annual research plan, which appears to be mainly a result of a bottom-up process in which individual researchers propose projects that are closely related to their current work and interests. We understand that in the great majority of cases, these proposals are accepted. While we were told by several staff members that the Head of Research works diligently to obtain suggestions from other departments and does himself add topics of particular interest from a policy perspective, the senior management does not appear to be closely involved in the establishment of the research plan. Overall, research appears to be overwhelmingly “supply driven.”

The set of research projects is divided into research themes. In 2013 and 2014 the research themes have been:²

- i. Monetary strategy, business cycles, and price stability,
- ii. Financial stability and macro-prudential supervision,
- iii. Micro-prudential supervision and conduct of financial institutions,
- iv. Financial literacy and behaviour of households and companies,
- v. Modelling and forecasting.

¹ See <http://www.dnb.nl/en/onderzoek-2/index.jsp>.

² See www.dnb.nl/en/binaries/292081_DNB%20Research%20programme%202013.pdf and www.dnb.nl/en/binaries/306175_DNB%20Research%20programme%202014.pdf. Themes i. and ii. contain a number of projects on banking.

All these themes are relevant for DNB, given its role in the setting of monetary policy in the euro area and as the regulator and supervisor of the financial industry in the Netherlands (specifically, the banking sector, the insurance industry and the pension sector). Given the number of staff engaged in research, there would seem to be sufficient critical mass to undertake a research agenda covering all these topics.

Nevertheless and as mentioned by several staff members during our interviews, there appears to be little frontier macro and monetary research using DSGE modelling. This may be one factor accounting for what appears to be a limited amount of research on the interaction between the real and the financial sector (although without having reviewed in detail the working papers that have been written, it is difficult for us to judge this). However, it is not clear whether more research on DSGE modelling is warranted, as the policy relevance may be limited and it could require recruiting staff with relevant research interests or the allocation of potentially considerable research time from current research staff.

3. DNB's research achievements

DNB's research achievements can be assessed along two main dimensions. The first of these dimensions is the scientific achievements of DNB's research, which are relatively easy to measure by the quality and quantity of the publications, numbers of citations and the number and quality of seminars, visitors and conferences arranged. The second dimension concerns the impact of research on policy. While the achievements in this dimension are much more difficult to assess, since policy decisions are the result of many different factors and it is difficult to determine the role of specific research efforts, success along this dimension will arguably ultimately be more important for the Bank.

Table 1 reports the numbers of publications in A, B and C journals.³ Generally speaking, the quality of the research output is high, as evidenced by the publications in prominent scholarly

journals. Moreover, research quality seems to be improving over time as evidenced by a steady increase the number of publications in all three journal categories. Especially, the increase in the number of A journals is encouraging. In particular, the output in 2013 was excellent with two publications in the *Journal of Economic Theory* and one publication in the *Review of Financial Studies*. However, there were no publications in the AA journals in 2013. While such publications are desirable, this should not be taken as a sign of weakness, given that it is difficult to publish in the very top journals for researchers in the Bank and universities alike.

We note that the top publications are largely co-authored with established researchers from outside the Bank. While this may be evidence of long-term successful research collaborations, joint publications by DNB researchers in these journals would be an even stronger sign of success.

Table 1: Numbers of publications in different categories of journals

	A journals	B journals	C journals	Others
2009	3	15	4	4
2010	3	19	2	11
2011	4	16	9	3
2012	3	19	9	11
2013	6	27	10	16
Forthcoming	4	9	5	3

As far as we are aware, there is no systematic monitoring of citations or assessment of the policy impact of the research. However, there is some indication that citations are becoming more important in evaluations in Dutch academic institutions, which generally use the Thomson Reuters database. This database measures citations in published articles. However, DNB has no subscription to the Thomson Reuters database. For the purpose of this evaluation, DNB has collected information on citations in the (less restrictive) Ideas database. The collected information (see Appendix D) suggests that the Research Department does well

³ The journal list can be retrieved from DNB's website – see www.dnb.nl/en/binaries/268910_Final%20list.pdf.

in terms of citations, although the numbers of citations are rather unevenly distributed across the members of the Department.

DNB has an active seminar series, with a seminar taking place on average once a week during the active periods in the year. The great majority of speakers are non-Dutch researchers working outside of the Netherlands. It features every year a number of well-known names. Part of the program is filled with speakers from the so-called Visiting Scholar Program (VSP). Visiting Scholars are often major names in the profession. The fact that they are prepared to spend one week on average at DNB is a positive indication of the research atmosphere at DNB. Nevertheless, it is our impression that the return on the VSP in the form of concrete collaborations and papers produced remains low.

DNB regularly organises workshops and conferences (in 2013, it organised seven). The flagship event is the Annual DNB Research Conference, which will be held for the 17th time this fall.⁴ The Conference focusses on a specific theme and generally attracts prominent speakers. There is quite a large variety of topics that have been covered so far, including credit provision, financial stability, household finances, the housing market pensions, behavioural economics and communication in central banking. Overall, the DNB's conferences are of a very high standard in comparison to those held within euro system.

In our opinion, the upward trend in academic quality is still fragile. The best publications are produced by a limited number of researchers. As experience has shown, it is not easy for individual top researchers to maintain a constant stream of good publications. Hence, it is important to have a continuous infusion of promising young researchers. Recruitment of such researchers is difficult. Following other central banks and academic institutions, recruitment by the Research Department is done, in our view appropriately, on the international job market. This practice of open competition provides a useful signal that DNB aims at hiring the best people it can attract. However, recruitment also tends to be difficult since it is difficult to offer competitive packages to good candidates. Individuals who get job offers

⁴ For the programs of all Annual Research Conferences, see www.dnb.nl/en/onderzoek-2/test-conferences/annual-research-conferences/.

often end up at regional Federal Reserve banks, which can offer better packages.

It is inherently difficult to determine how research has contributed to the policymaking process. One measure is the extent to which the internal policy debate is based on evidence produced to scholarly standards. This is of course difficult for outsiders to observe directly. Nevertheless, interviews with economists from within and outside DNB, while generally agreeing that it is hard to pinpoint the specific contribution of research to policy, very much suggest that good economic analysis is highly valued within the Bank. Indeed, we were pointed to several instances in which research has had a distinctive influence, such as pensions policy, where work on financial literacy has had an impact.

A number of interviewees outside the DNB argue that the DNB has contributed very useful background information on important issues. However, some outsiders had the impression that DNB could have provided more background research on important policy questions facing the Dutch economy.⁵ The gap between research and policy has been recognised and active attempts are made to reduce it, for example, through secondments of researchers in other departments and, as noted above, by asking other departments for input when the annual research plan is drawn up.

4. Recommendations

Our impression is that the research department functions well and that it has improved steadily in recent years. The staff we met spoke highly of the openness and informality by which it is managed. They indicated that there is a stringent process of performance evaluation and progress relative to the annual research plan is monitored closely. Overall, it is a well-managed and nice place to work. However, that does not mean that there is no room for further improvement. We believe that the senior management may wish to reflect on the following, largely interrelated, issues.

⁵ Examples include the size of fiscal multipliers, credit provisioning to small and medium-sized firms and the consequences of household (mortgage) debt for the Dutch economy.

1. *Enhance mobility of research staff.* Since economists tend to grow more interested in policy over time, one would expect a significant fraction of research economists to move to policy areas after 5 – 15 years of service at which point they tend combine strong analytical skills with a good understanding of policy questions. This seems to happen very infrequently at the DNB. A policy of encouraging mid-career research staff to explore internal moves would offer policy departments a pool of applicants with strong analytical skills, provide research staff with new opportunities for career development, help promote closer interaction between research and policy, and ensure the regular flow of “fresh blood” into the research department.

2. *Promote greater interaction between research and policy.* There is a substantial and increasing interaction between research and policy. Such interaction allows policy staff to learn about research methodologies and findings of relevance to their work and helps research staff get a better understanding of policy issues. Our interviews suggested that policy staff are not always aware what research is undertaken of relevance to their work and who is doing it. This situation seems to be accompanied by a lack of informal interaction of researchers with employees from other departments.⁶ Our interviews indicated that it would be helpful for research staff to “market” their work more effectively within the institution.

There are various ways in which interaction between research and policy can be enhanced. As already noted, greater mobility would be particularly helpful, as would the establishment of a series of policy notes in which researchers could present their work (see the next proposal). Small workshops organised jointly by policy and research staff on policy issues is another idea. Having policy workers co-organise seminar series may also be desirable, as would involving research staff in specific policy projects.

3. *Consider establishing a DNB Economic Letters series.* It would be useful for research staff to have an outlet in which they can present their research findings and discuss policy issues in a non-technical, brief and easily accessible format. This permits staff elsewhere in the Bank,

as well as policymakers in other institutions and the interested public to quickly acquaint themselves with the work undertaken in the Research Department. Publications in this series could also be counted towards the non-research objectives of staff.

4. Consider dividing the Research Department into sections. Currently all staff economists report to the Head of Research. Providing close and effective guidance for around 30 economists on an ongoing basis is exceptionally time consuming. The opportunity cost of this amount of senior management time seems prohibitive. Dividing the Department into sections – e.g., monetary policy research, model building etc. – and having each section report to a senior member of the Department may permit a more effective allocation of the Head of Department’s time. Moreover, it would provide the section heads with an opportunity to acquire staff management skills which could make it easier for them to move within the bank.

5. Increase senior management input in the development of the annual research plan. As noted above, the research plan is very largely based on a “bubbling-up” approach. The result may be a lack of focus and policy relevance. In our view, it would be desirable for the senior management to provide more input in the establishment of the plan. For instance, the process could start with the senior management indicating its assessment of the most policy relevant question in the coming year, and this could be followed by the research staff considering how their work could be brought to bear on these issues. The senior management could also indicate whether, and, if so, to what extent they would like to see a given research project undertaken jointly by policy and research staff. This, of course, would be much easier to achieve if there was greater mobility of research staff.

6. Set explicit objectives for quality and differentiate in terms of research time. The DNB has a talented research staff who covers a number of different areas, ranging from research on business cycles to research on banking and financial literacy. Staff also differ in terms of experience. Some of them have recently finished their PhDs, while others have been working in the Research Department for long periods of time. Some have no or hardly any experience outside the Department, while others have worked in policy departments or abroad. It is

⁶ For instance, it was suggested to us that research staff seldom appear at receptions and other bank-wide events.

important that the incentives, publication targets, and time allocated for research reflect this diversity of staff.

While publications in high-quality outlets are appreciated more than publications in lower-ranked outlets, objectives in terms of quality are not made explicit, neither at the level of the department as a whole, nor at the individual level. The department has to meet aggregate targets. However, these targets can be fulfilled with a large number of B publications or a smaller number of A publications. In the formulation of aggregate targets, explicit emphasis could be given to the quality of the publication outlets since publications in higher-ranked journals contribute disproportionately more to DNB's reputation than publications in lower-ranked journals. It might also be helpful to make requirements to publish in high-ranked outlets more explicit in the performance objectives of individual members of the research staff.

Researchers have on average 60% of their time for research. While research time varies, such differentiation takes place in a discretionary way, and it is not clear to researchers exactly what they have to do to obtain more research time. Moreover, those who have less-than-average research time may feel that they are unfairly treated. It might be a good idea to have an explicit policy of differentiating research time on the basis of pre-set criteria.

This would also allow setting the individual targets explicitly in a more tailor-made way. Individuals with substantial research time would be expected to publish in highly-ranked journals, while individuals with limited research time are expected to publish occasionally in a lower-ranked outlet and would be evaluated more on the basis of their contribution to the policy process.

Furthermore, management might consider providing also model builders with incentives to publish. Papers that explore recent macroeconomic issues – such as the effect of the financial crisis on the monetary transmission mechanism – within the framework of the “DELFI” model may well be publishable in journals that focus on the Dutch economy, such as *De Economist*, or on modelling such as *Economic Modelling* or the *Journal of Policy Modelling*.

Since scholarly publications are valued highly in the Research Department, a particular concern is that it may be difficult to recruit internally to the modelling area if publications are seen as unnecessary or difficult to achieve. Moreover, stimulating modelers to publish may bring benefits for the quality of the analysis. Publications in external journals would also be helpful for reaching a broader audience.

7. Consider expanding the metrics used to assess research output. To date, research output appears to be solely judged by the classification of the journals (AA, A, B or C) that papers appear in. The “correct” classification of a journal is often a tenuous issue and for this reason the Tinbergen Institute has switched to judging journal publications on the basis of the article influence scores (AIS) of the journals. The AIS of a journal is higher when its articles get cited more. Hence, more influential journals are classified higher. Management could consider switching to valuing journal publications on the basis of the AIS. Nevertheless, even articles that are published in highly influential journals may be cited only rarely, while the opposite could be true about articles published in a journal with a low AIS. Therefore, a second element in the assessment of research output could be the number of citations that a researcher has obtained in recent years. This is the most direct measure of the contribution of the researcher to the profession.

Appendices

A: Mandate of DNB research assessment committee 2014

Research quality

- How do you assess the quality of DNB's research taking into account the entire research capacity of DNB and the need to focus on issues related to the policy tasks of the bank?
- What can be done to improve results in terms of quality and quantity of publications?

(Inter)national visibility

- How do you assess DNB's research reputation?
- How do you assess the visibility of DNB's research (inter)nationally and are there ways to improve it?

Focus

- Is the DNB research program focusing on the right topics?
- How do you assess the research on the interaction between the real and the financial sector?

Policy relevance

- How do you assess the policy relevance of DNB's research?
- How do you assess the measures taken to improve upon the interaction between research and policy?
- What can be done to improve the policy relevance of research and the interaction between research and policy?

Organization

- How do you assess DNB's personnel policy with respect to research?
- How do you assess DNB's policies with respect to scientific integrity?
- To what extent is there a critical mass in the various areas of research (people and output) and/or sufficient cooperation between researchers?
- What is your opinion on how DNB's research is organized in terms of:
 - quality
 - efficiency
 - coherence

B: List of people interviewed

Robert Paul Berben (DNB)
Jan Marc Berk (DNB)
Bert Boertje (DNB)
Wilko Bolt (DNB)

Hans Brits (DNB)
Sylvia Butzke (DNB)
Paul Cavelaars (DNB)
Peter van Els (DNB)
Casper van Ewijk (Univ. of Amsterdam and Tilburg, former deputy-director CPB)
Gabriele Galati (DNB)
Harry Garretsen (Univ. of Groningen; evaluator in 2009):
Jakob de Haan (DNB)
Mark Harbers (financial spokesman, Tweede Kamerfractie VVD)
Ronald Heijmans (DNB)
Eddy van Hijum (financial spokesman, Tweede Kamerfractie CDA)
Marco Hoerberichts (DNB)
Neeltje van Horen (DNB)
Aerdt Houben (DNB)
David-Jan Jansen (DNB)
Mark Mink (DNB)
Peter Hein van Mulligen (chief economist CBS)
Rick van der Ploeg (University of Oxford, Free University of Amsterdam)
Maarten van Rooij (DNB)
Job Swank (DNB)
Coen Teulings (Univ. of Cambridge and Amsterdam, former director CPB):
Robert Vermeulen (DNB)
Razvan Vlahu (DNB)
Jasper de Winter (DNB)
Chen Zhou (DNB)

D: Citations obtained from Ideas database

	H-index	percentile	Citations Ideas	percentile ideas
Robert-Paul Berben	n.a.	n.a.	n.a.	n.a.
Jan Marc Berk	6	n.a.	96	n.a.
Jaap A. Bikker	13	5	n.a.	n.a.
Wilko Bolt	9	9	185	14
Dirk Broeders	n.a.	n.a.	n.a.	n.a.
Paul Cavelaars	n.a.	n.a.	n.a.	n.a.
Andrea Colciago	n.a.	n.a.	n.a.	n.a.
Jakob de Haan	25	1	2286	1
Leo de Haan	7	13	103	21
Maria Demertzis	10	n.a.	290	n.a.
Emmanuel de Veirman	3	32	37	35
Jon Frost	1	57	3	66
Gabriele Galati	11	6	346	9
Irma Hindrayanto	n.a.	n.a.	n.a.	n.a.
Marco Hoeberichts	9	9	362	8
David-Jan Jansen	9	9	357	9
Jos Jansen	8	10	264	11
Ron Jongen	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Nicole Jonker	8	10	514	6
Jan Kakes	6	16	114	20
Ide Kearney	10	7	281	10
Anneke Kosse	3	32	15	47
Mark Mink	3	32	77	25
Andreas Pick	n.a.	n.a.	n.a.	n.a.
Steven Poelhekke	6	16	129	18
Ad Stokman	5	20	193	14
Federica Teppa	n.a.	n.a.	n.a.	n.a.
Jan Willem van den End	5	20	56	29
Carin van der Crujssen	6	16	115	20
Koen van der Veer	1	57	6	59
Peter van Els	n.a.	n.a.	n.a.	n.a.
Saskia van Ewijk	2	n.a.	4	n.a.
Neeltje van Horen	10	n.a.	278	n.a.
Iman van Lelyveld	10	8	363	8
Maarten van Oordt	2	42	10	52
Maarten van Rooij	8	10	230	12
Dennis Veltrop	n.a.	n.a.	n.a.	n.a.
Johan Verbruggen	n.a.	n.a.	n.a.	n.a.

Robert Vermeulen	4	25	62	28
Razvan Vlahu	2	42	20	43
Peter Wierts	n.a.	n.a.	n.a.	n.a.
Chen Zhou	5	20	n.a.	n.a.
Others				
Lola Hernandez	1	57	5	60
Robert Mosch	3	32	44	32
Janko Gorter	3	n.a.	48	n.a.
Tijmen Daniels	3	n.a.	34	n.a.
Franka Liedorp	4	n.a.	112	n.a.