

Measuring Research Performance at IFN: 2005–2014

High research productivity is crucial for IFN's success. With few exceptions, all IFN research is first published in the IFN Working Paper Series. Yet the true quality of a specific research paper cannot be determined until it has been suitably published (in a journal, collective volume, or as a research monograph). Eventually, an unpublished Working Paper is usually of little value.

But judging research is not easy. There are many different types of publishing channels that have to be weighed against each other. Ideally, IFN research is published in the highest-ranked peer-reviewed journals of economics possible. This requires a great degree of originality, craft, and accuracy, but also the presentation of articles at leading international conferences and seminars to make one's research known among the foremost researchers in the field.

How should research output be measured? Citations are most frequently used, but is it necessarily true that the most (least) cited research is also the best (worst) research? Can we assume that all important research results are published in refereed journals or should we also include monographs, book chapters, and textbooks? Is it sufficient to evaluate research based on which journal an article is published in or how many citations it gets? How do we handle the fact that many more articles are published in some sub disciplines and hence get more citations? How do we assess a researcher who has published one short article in a top-ranked journal relative to a researcher with several frequently cited articles in field journals of relatively low rank? How do we handle problems arising from changes in journal rankings and overall competition? Should we give weight to impact outside academia, such as on policymaking or the policy debate?

The measures chosen signal what type of research is valued. The shortcomings and caveats of a particular measure may be discussed and due caution requested, but in practice such provisos tend to be largely overlooked. In the end, the raw number remains. Researchers are becoming increasingly aware of what is measured—in turn, a strong tendency to do what is measured has arisen (Holmström and Milgrom 1991). Several dimensions are involved: the choice of topic, method, preferred publication outlet, etc. Hence, the very choice of measure may inadvertently become an important determinant of what research is done, and these effects are unlikely to be transitory. This tendency is reinforced if universities, departments, and research councils use a certain metric when making decisions about hiring, promotion, and the allocation of funds (Holcombe 2004, Oswald 2007).

Research Output at IFN 2005–2014

IFN's research output has increased greatly in recent years. This remains true regardless of whether we measure the number of Working Papers, journal articles, or book chapters published internationally or in Swedish.

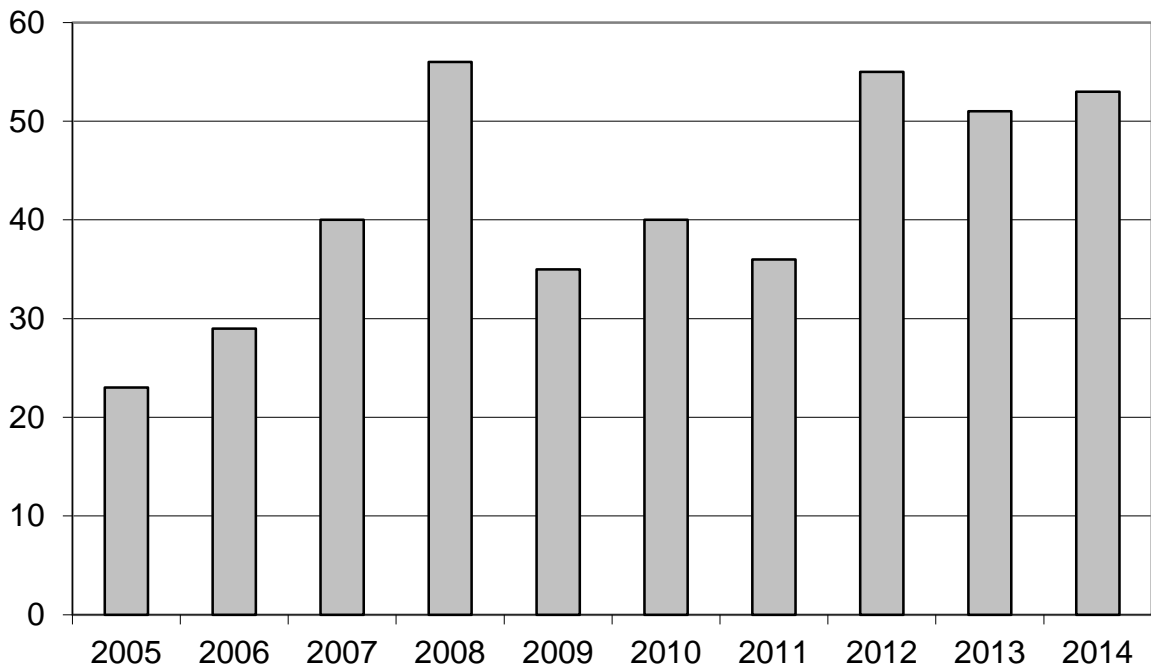
However, increased productivity without increased quality has limited value. Therefore, we evaluate the quality of research as well. An important measure is therefore how often IFN scholars are published in the high-quality journals that have the greatest academic impact.

Below the quantitative and qualitative results of IFN research during 2014 are summarized and compared to previous years. We also describe how we conduct the evaluation.

Publication in English

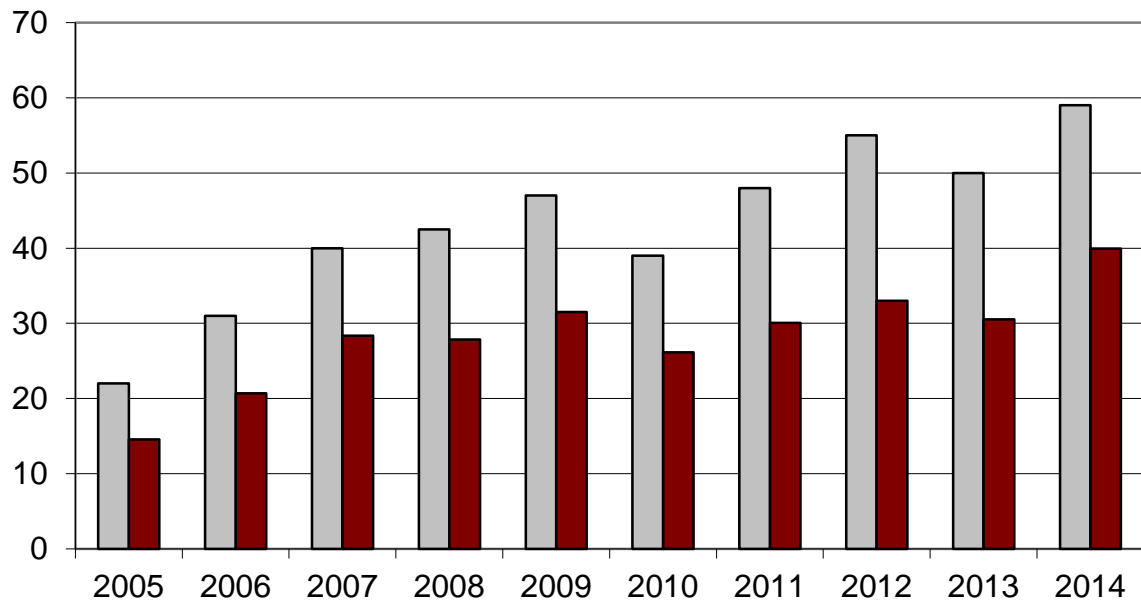
Normally, research is presented in the form of articles written in English. After an article has undergone a first quality check, it is published in IFN's Working Papers series. The series can also include articles that visiting researchers have written during their time at IFN. *Figure 1* illustrates the number of Working Papers published during the years 2005–2014. The number varied between 23 and 56 per year up to 2005. From 2006, the number of published Working Papers has increased, with 2008 as a peak year in the institute's history with 56 published Working Papers. In the last three years, an average of 53 Working Papers have been published. In 2014, 53 Working Papers were published.

Figure 1 Number of IFN Working Papers, 2005–2014.



Because publications can take varying forms, an unequivocal method to measure the number of published studies does not exist; research can be single-authored, or written in collaboration with colleagues outside of IFN, for example. Yet a first rough measure can be made by simply summing the number of journal articles and book chapters published in the institute's digital reprint series. *Figure 2* gives these numbers for 2005–2014. The figure also shows a revised number adjusting for whether one or several of the authors do not work at IFN. 2014 was a peak year in the institute's history with 59 published journal articles and book chapters.

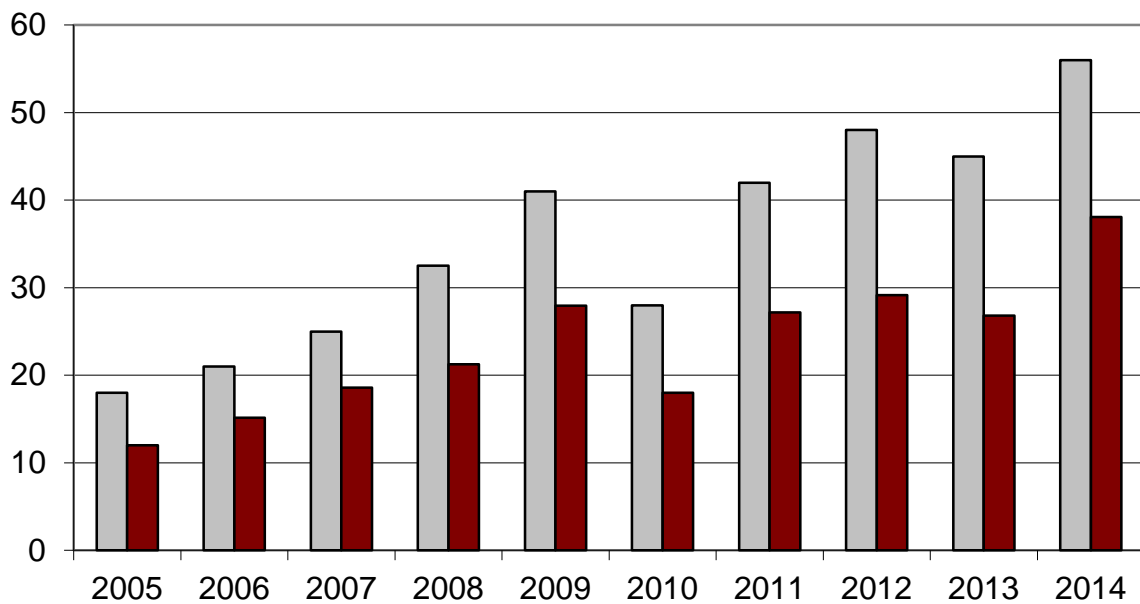
Figure 2 Number of Journal Articles and Book Chapters in English, 2005–2014.



Note: The right column gives the number of publications adjusted for external co-authors. An article with one external co-author is counted as 0.71, with two external co-authors as 0.58, and so forth (according to the formula $1/\sqrt{1 + \# \text{ of external co-authors}}$). Comments, Notes and Replies are counted as half an article.

Figure 3 presents the number of articles published in refereed journals with and without adjustment for non-IFN co-authors. We see a large increase here as well. In 2014, IFN researchers published a total of 56 journal articles (38 with adjustment for external co-authors). Because of a considerable delay occurs between the point when an article is accepted for publication and when it is actually published, the number of articles accepted during a given year is a better measure of contemporaneous research productivity. Starting in 2006, this information has been gathered and continuously published on ifn.se. In 2014, 59 articles were accepted for publication.

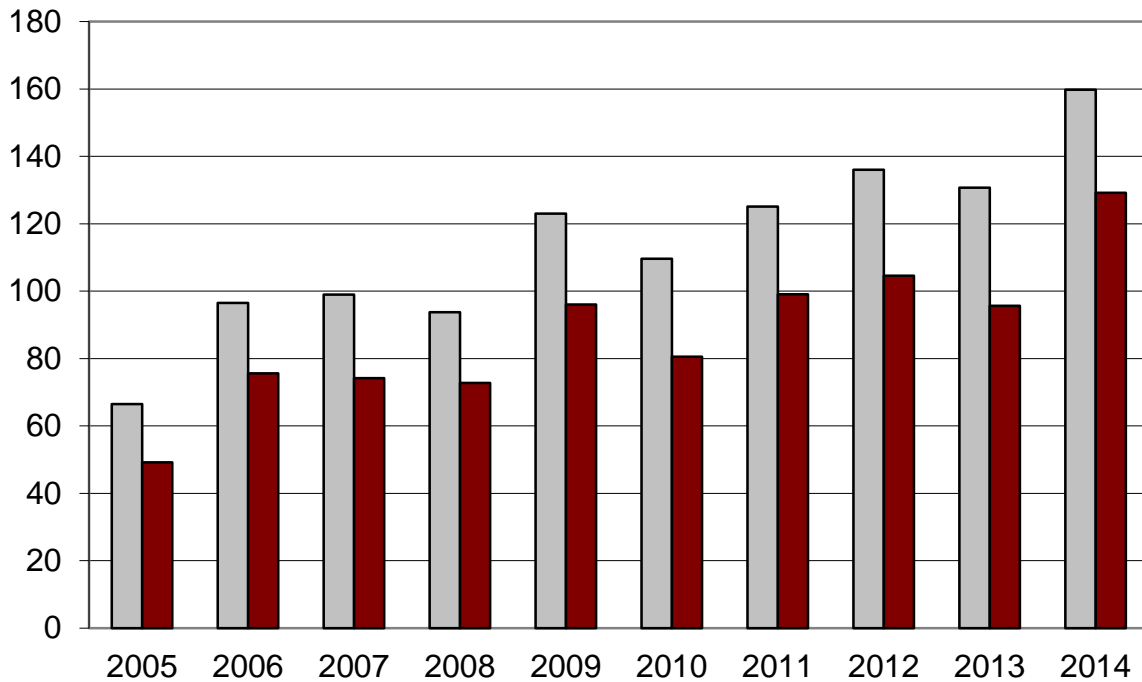
Figure 3 Number of Articles in Refereed Journals, 2005–2014.



Note: See Figure 2.

The measures above capture different aspects of the quantity of IFN’s research output. However, raw numbers are imprecise indicators of the quality of the published research. Journals differ greatly in quality, and IFN researchers aim at publishing their work in as highly ranked journals or book series as possible. To this end, an internal grading system has been developed; see Appendix below. This scorecard aims at striking an appropriate balance between the different trade-offs discussed above. It has been developed with IFN’s objective in mind; other institutions, given their stated missions, may benefit from having a different scoreboard.

Figure 4 Number of publication points based on IFN’s scoreboard, 2005–2014.



Note: See Figure 2.

Figure 4 shows the number of publication points with and without adjustment for external co-authors. In recent years we note a pronounced increase in this measure compared to the early 2000s. The total publication score in 2014 adjusted for outside authors was 129 (160 without adjustment), which is more than 20 percent above the previous all-time high attained in 2012.

IFN’s researchers also publish books and dissertations – see Table 1. In 2014, 15 books were published.

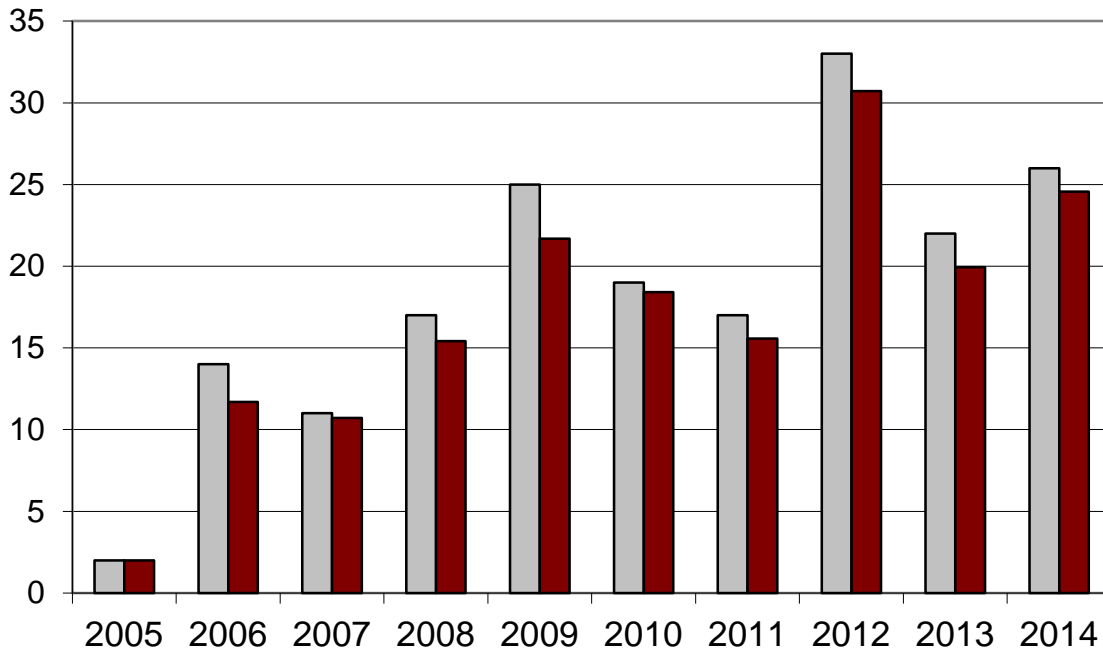
Table 1 Books and dissertations authored by IFN’s researchers, 2007–2014.

	2007	2008	2009	2010	2011	2012	2013	2014
Books in English		2	4	3	2	4	1	2
Edited volumes in English	3	3	2	2	1	3	2	2
Books in Swedish	2	1		1		4	2	8
Edited volumes in Swedish	1	1	2	1	1	3	4	3
Total	6	7	8	7	4	14	9	15

Publication in Swedish

As academia's "third objective"—communicating research to people outside of the research sphere—is explicitly included in IFN's mission, publications in Swedish is also important. In most cases, this occurs through the publication of articles written by researchers in Swedish language journals such as *Ekonomisk Debatt* and *Ekonomiska Samfundets Tidskrift*, though these efforts also include participation in collective volumes, expert reports for government commissions and agencies etc. These studies are published in IFN's Swedish reprint series. In 2014, 26 studies were published in Swedish.

Figure 5 Number of Works Published in IFN's Swedish Reprint Series, 2005–2014.



Note: The right column gives the number of reprints adjusted for external co-authors. An article with one external co-author is counted as 0.71, with two external co-authors as 0.58, and so forth (according to the formula $1/\sqrt{1 + \# \text{ of external co-authors}}$).

To create a channel for articles written in Swedish or English on topical issues related to the business sector, a new publication series called IFN Policy Papers was started in 2006. Six studies were published in this series in 2014.

In the series Research Surveys, we collect reports, both short and long, written by IFN researchers that give an overview of the state of research in IFN's core areas. The shorter reports are first published in the *IFN Newsletter* (normally published three times a year). Other research surveys often result from individual researchers' collaboration with government bodies and other clients. In 2014, nine long and three short research surveys were published.

In order to further our efforts to communicate research to the general public, we publish popular science articles and book reviews in journals and magazines like *Balans*, *Respons* and *Arena*, as well as in international magazines and publication series. In 2014, IFN researchers published 13 such contributions.

Finally, IFN researchers have participated in public debate to a considerable degree, especially in the form of newspaper Op-ed contributions. 38 such articles were published in total, including 10 in *Dagens Nyheter* and 15 in *Svenska Dagbladet*.

Appendix: The IFN System for Quality Adjustment of Research Output

Outlet	Score
Top-5 journals in economics: <i>American Economic Review</i> , <i>Econometrica</i> , <i>Journal of Political Economy</i> , <i>Quarterly Journal of Economics</i> and <i>Review of Economic Studies</i> .	10
Top journals in economics just below top-5, including policy journals with a very high impact factor: <i>Journal of Economic Perspectives</i> , <i>Journal of Economic Literature</i> , <i>Brookings Papers on Economic Activity</i> , <i>Economic Policy</i> , <i>NBER Macroeconomics Annual</i> .	8
Top-ranked journals outside economics such as <i>Science</i> , <i>Nature</i> , <i>PNAS</i> , <i>Journal of Finance</i> , <i>American Political Science Review</i> , <i>Academy of Management Journal</i> and <i>American Journal of Sociology</i> .	8
Other top journal in economics ranked 30 th or higher according to the <i>Academic Journal Quality Guide</i> (ABS; Harvey et al. 2010) or 20 th or higher according to the IF-measure, and the Kodrzycki & Yu (2006) impact per journal and per article. See Henrekson and Waldenström (2011) for further details.	6
Journals outside economics listed in the Social Sciences Citation Index, SSCI, having an Impact Factor (IF) > 3.	5
Economics journals ranked 21–40 according to Kodrzycki & Yu or IF, and ranked 31–50 according to ABS.	4
Other economics journals assigned a non-zero score in ABS or the IF-measure, and journals outside economics listed in the SSCI with an IF between 2 and 3.	3
Other refereed journals outside economics listed in the SSCI.	2
Other refereed journals.	1
Book chapters in high prestige series and/or contributions to collective volumes published by one of the leading publishers. In rare cases, such as contributions to Elsevier's <i>Handbook</i> series, the score can be even higher.	2–4
Other book chapters (the book should be registered in <i>EconLit</i>).	1

For works written by affiliated researchers the score is halved. This also applies for works published by researchers who have left IFN, but where IFN is mentioned as one of the affiliations in the published version of the article. The IF-ranking from the *Journal Citation Reports* pertains to the year before, i.e., the 2012 ranking is used for the 2013 score etc.

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