

CENTRAL BANKING

How to run a world-class economics department

Benchmarking data shows central banks have myriad ways of organising their economists. So how do some of the world's top research organisations do it?



Daniel Hinge

[@dan_hinge](https://twitter.com/dan_hinge)

30 Aug 2022

In the run-up to the publication of this year's annual economic report, the Bank for International Settlements' general manager, Agustín Carstens, laid down a challenge to the organisation's researchers. Could they write a chapter that would shed new light on the inflation process and also stand the test of time, lasting beyond the heated inflationary environment of today?

The challenge encapsulates what many major central banks and related research organisations aim to achieve with their research. Though purists may be content with the fact of moving forward the boundary of human understanding, central banks operate in the muckier real world, where policy must be set on the basis of incomplete information to influence an economy of complex, moving parts. Central bank research needs to push the boundary, but also say something useful.

"We did our best," says Claudio Borio, head of the monetary and economic department (MED), the engine room of BIS research. Carstens' request was one of many jobs crossing his desk: MED is tasked with supplying analysis to BIS managers, as well as preparing briefings for bi-monthly central bank meetings, writing the BIS's public-facing reports and supporting the BIS's many committees. Once all that is done, researchers have time to work on their own projects.

The BIS's research output places it fourth in the world for central bank research, based on the 'all authors, all years' metric – or first if you filter by the top 10 authors and the past 10 years of research. The rankings are produced by Repec, or Research Papers in Economics, a closely watched repository for research, which aggregates data on research output, downloads, citations, impact and more, to give authors and organisations a score.

A. Top 20 central bank economic departments (all authors, all publication years)

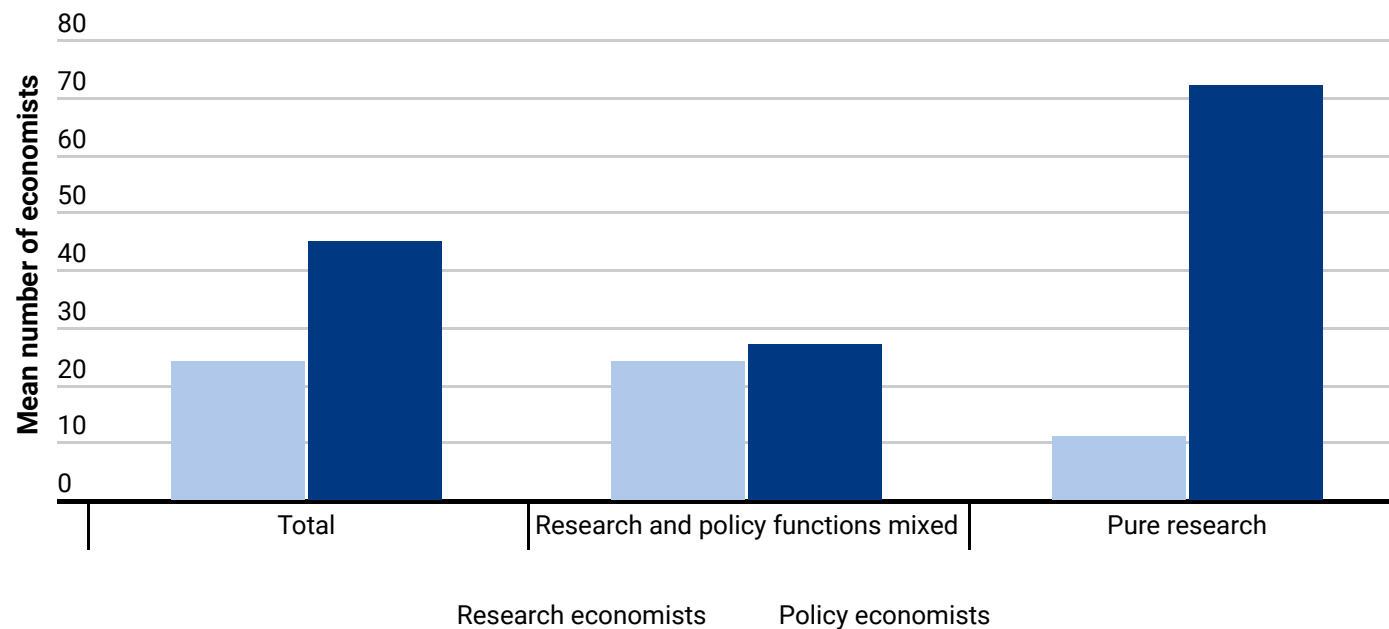
Rank	Institution
1	International Monetary Fund
2	European Central Bank
3	Federal Reserve Board
4	Bank for International Settlements
5	Federal Reserve Bank of New York
6	Bank of Italy
7	Federal Reserve Bank of Chicago
8	Federal Reserve Bank of Minneapolis
9	Federal Reserve Bank of St. Louis
10	Bank of England
11	Bank of Spain
12	Federal Reserve Bank of Dallas
13	Banque de France
14	Central Bank of Colombia
15	Federal Reserve Bank of San Francisco
16	Bank of Canada
17	Deutsche Bundesbank
18	Federal Reserve Bank of Philadelphia
19	Federal Reserve Bank of Cleveland
20	Federal Reserve Bank of Atlanta

Source: Research Papers in Economics

The squeeze on researchers' time seems common to all research organisations. The Bank of Canada (#16 in the Repec rankings) employs 100 research economists and many more policy economists. Researchers get to spend about 50% of their time on their own research; policy economists get less. *Central Banking's [economics benchmark data](#)* suggests the Canadian researchers are lucky; the average proportion of time spent on one's own research is about 27%, according to the 2021 benchmark.

Splitting economists into policy and research roles is also common. People want to work on different things, and the policy-driven nature of central bank economics means many need to be allocated to focus on this key output. Indeed, the benchmarking data shows policy economists tend to outnumber their research colleagues. There are 45 policy specialists and 24 researchers at the average central bank that responded to the 2021 benchmark.

Policy economists outnumber research economists



Benchmarking brief: Policy economists significantly outnumbered research economists at central banks where there is a pure research department.

Policy and research economists: Policy-focused economists are involved with the cycle of preparing policy decisions. Research economists' academic work may engage longer-term topics and economic cycles relevant to central banks and economics.

Source: Central Banking Benchmarking Service/Economics 2021



Why research?

Before tackling the question of how to organise the economics department, it is worth considering the point of it all.

Jim MacGee, managing director of economic and financial research at the Bank of Canada, tells *Central Banking* a key aim is to build up a “whole body of research”. No single paper is likely to be able to solve a complex policy question. But having an array of tools can help policy-makers act where “you don’t have all the data, but you have to make a decision now”.

Mauricio Villamizar, board member at the Central Bank of the Republic of Colombia (#14 in the rankings, the top-ranked emerging market central bank), agrees research is “vital” for the central bank to meet its mandate. It allows officials to judge the “likelihood of how and when risks will materialise, and how the economy will react in response to our own policy decisions”.

But, he adds, research also strengthens accountability, illuminating problems and providing feedback that helps the central bank improve. It is also a public good: it contributes to the public understanding of economics.

Good central bank research, then, tends to be work that says something new, wields influence and supports policy. To some extent, these elements can be summarised by quantitative metrics. The Colombian central bank uses Repec to track its research, and Villamizar also mentions statistics gathered from Scopus, Mendeley and the Web of Science – databases that offer information on citations, references and research impact. Additionally, the central bank uses network analysis to track links between co-authors.

One artefact of the rankings is that big players rise to the top. A part of the Repec score is given by the sheer number of papers published which, naturally enough, is related to the size of the research team.

Central Banking's data shows a clear, positive correlation between the number of research economists and the average output of papers. On average, central banks in the sample have around 24 researchers, but there is major variation. A small central bank in Asia-Pacific has just two researchers; at the top end, central banks employ around 100.

But, as MacGee notes, it is hard to track something as multifaceted as the impact of research on policy. "The place we really want to see impact, we don't have really good metrics," he says. It is possible to track the number of presentations given to policy-makers, or briefing notes prepared. But the day-to-day discussions that shape policy, the flow of ideas from researchers to policy-makers via a chance encounter or a chance reading of a particular paper, cannot be given a numerical value.

Structuring the department

The policy-oriented research that central banks carry out tends to shape the way departments are structured. On a very basic level, central banks tend to intermingle their policy and research functions, rather than having a single, 'pure' research department. The benchmarking data suggests around 75% of central banks mix policy economists and researchers across departments.

Even within the heading of 'mixed' functions there are a lot of different structures. The Bank of Canada uses a 'matrix' to allocate staff. Research economists are part of economic and financial research (EFR), which MacGee oversees. But EFR is, in a sense, a virtual department, as researchers are assigned to policy departments for their day-to-day work. Senior managers in EFR also sit in multiple worlds: James Chapman, for instance, is senior research director in EFR but also deputy managing director in the banking and payments department.

“I think it works really well,” MacGee says. Having the research function gives the bank a “consistent voice”. Meanwhile, having researchers assigned to policy roles “makes it much more easy for a lot of the information to flow from researchers into policy discussions and vice versa”. He says researchers are also more likely to take a sceptical stance, which encourages those in the policy team to question their assumptions and think deeply about the justification for any particular decision.

Others have more of a hybrid structure. The Bank of England operates a hub-and-spoke model, with some researchers assigned to the central hub, and the rest distributed across the bank. It also operates its Centre for Central Banking Studies, which has its own researchers, and trains economists from other central banks. Additionally, its advanced analytics team offers support to researchers dealing with big data challenges.

Colombia also has a small, dedicated research team and a larger group of researchers spread across departments. “Most research economists are assigned to a specific department where their time for research is roughly 20%, the rest is dictated by management,” says Villamizar, who was in charge of the economic studies department before becoming a board member. “Other researchers, at dedicated research departments, have about 80% of their time allotted to research.”

The Hong Kong Monetary Authority operates a slightly different model. In 1999, it spun out the Hong Kong Institute for Monetary and Financial Research as an independent entity. In 2019, the HKIMR became part of another organisation, the Hong Kong Academy of Finance, a government-sponsored think-tank focused on promoting Hong Kong as a financial centre.

Even so, the HKMA retains an in-house research department. A spokesperson explains the in-house team performs both research and policy functions, preparing economic analysis, macroeconomic surveillance and forecasts. “Where feasible”, the in-house researchers also publish papers. By contrast, the HKIMR is more focused on academic output.

A common theme that a lot of research directors raise is the need to create a structure that allows ideas to flow as freely as possible. Like MacGee, Borio stresses the value of mixing research and policy: “Spontaneously, the economists end up asking the right questions because they are exposed to the concerns of policy-makers, and so it is natural to translate those concerns into their research.”

The HKIMR may be an independent research organisation, but it strives to make up for any lost proximity to policy-makers by inviting visiting researchers to conduct projects and collaborate with its researchers.

Similarly, the Bank of Japan’s Institute for Monetary and Economic Studies says its programme for visiting scholars has led to “significant interaction between Japanese and foreign researchers, and thereby stimulated the institute’s research”.



Claudio Borio

Incentives and hiring

The BIS has the dual benefit of serving as a regular forum for a diverse mix of central bankers and playing host to several different committees. As MED is connected to both, the department benefits from constant interaction with economists from around the world.

Indeed, Borio says this unique position was one of the main attractions of joining the BIS, where he has worked since 1987. “You know who your customers are and you interact closely with them. You’re exposed to the whole spectrum of views and challenges central banks are facing. Then it is up to you to try and connect the dots.”

For core research duties, central banks, as well as organisations such as the BIS and International Monetary Fund tend to hire PhD economists. Yet, doctoral training is generally seen as more important for

pure research than policy tasks, which may explain why the benchmark data shows around one in five central bank economists [have a PhD](#). The majority of central banks sponsor staff to undertake PhDs.

Economists will often travel overseas to take a job, and *Central Banking's* data hints at some evidence of a global market for economists. The data clearly shows economists are paid more than the level of GDP per capita – arguably unsurprising for a highly skilled role. More interesting, perhaps, is that central banks in lower-income countries tend to pay their economists a higher multiple of GDP per capita. African central banks pay as much as 15 times GDP per capita, while the figure is closer to 1.5 times in Europe. This may suggest global competition for scarce skills.

Competitive pay and competitive amounts of research time relative to other organisations are essential to attract top staff, says MacGee. But he also notes central banks have an advantage as they can offer economists a route to having an immediate impact on policy. They can also potentially offer access to additional tools, such as advanced analytics or confidential data that may be inaccessible in academia.

The HKMA recently upgraded the data infrastructure in its research department. It has created a web portal for researchers to share and access in-house data and analysis “in an integrated and automated manner”, the spokesperson says. It has also created a data science lab with “state-of-the-art analytical tools” and powerful computational resources to support HKMA researchers with advanced data analysis.

“Because of the evolving nature of the issues to be investigated, a variety of data types (eg, qualitative, survey or interview data, and quantitative data) are being routinely used in HKIMR reports and studies,” the spokesperson says. “Hence, the nature, depth and breadth of the data we use is increasingly important.”

Setting the agenda

With a team of economists hired and suitably organised, there remains a question for research directors as to what exactly should be researched.

The Colombian central bank uses a “two-pronged strategy”, says Villamizar, a mix of “top-down” thematic guidelines set at a senior level and “bottom-up” research proposals from staff.

The constant interplay of policy and research means the most pressing topics for policy-makers are likely to find their way into research. Supply-side economics is a hot topic now, just as epidemiology was in 2020. But MacGee notes there will always be a “core” of topics that central banks are perpetually interested in researching: inflation dynamics; the monetary transmission mechanism; payments; and financial stability. Research has a slow-moving trend around which shorter-term ideas come and go.

Innovation BIS 2025, the strategic plan laid down by Carstens in 2020, includes several overarching research topics for MED: the impact of technology; macro-financial stability; monetary policy frameworks; lessons from crisis management; and monitoring and spillovers. The challenge to build a new inflation model could fit under a few of these headings, but was also a case of seizing the moment to contribute to the red-hot inflation debate.

The [annual economic report chapter](#) setting out the analysis proposes a method of analysing inflation by looking “under the hood”, examining the components of inflation rather than relying on aggregates. It highlights a process whereby relative price changes can morph into more persistent inflation – a regime shift.

By looking in detail at the inflation process, particularly wage- and price-setting, it emphasises how some factors that workhorse models tend to neglect, such as psychology and indexation of contracts, can become more important as inflation rises. This means once in a high-inflation regime, central banks may

struggle to find their way back to the way things were. People start paying closer attention to prices and demanding higher wages, while automatic price changes through indexation can become baked in.

Combined with research on how central banks were able to engineer a 'soft landing' in past bouts of inflation (**[tighten policy hard and early](#)**), the annual economic report seems to have galvanised some central banks into taking stronger action. For example, when Bank of Canada governor Tiff Macklem announced a 100-basis point rate hike on July 13, he noted "front-loading tightening cycles tend to be followed by softer landings".

Borio says "it is too early to tell", whether the inflation model will have a big impact. But the BIS is now considering publishing the ideas in more detail as a monograph. "I personally think it is a useful complementary way to think about the inflation process, and we will certainly be doing more research in this area."

Copyright Infopro Digital Limited. All rights reserved.

You may share this content using our article tools. Printing this content is for the sole use of the Authorised User (named subscriber), as outlined in our terms and conditions - <https://www.infopro-insight.com/terms-conditions/insight-subscriptions/>

If you would like to purchase additional rights please email info@centralbanking.com