# Banco de Portugal's experience in communicating statistics

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#### 1. Introduction

The past several months have been an eventful period for the Portuguese economy. All the economic sectors have been suffering severe consequences, particularly income reduction and strong credit restrictions. Most households and firms, taken by surprise and in a troubled situation, could not help asking themselves: "What happened? Why there was no information that would help us to understand what was coming? Can we still trust statistics?"

In the case of Portugal, the users' interest for the statistics published by Banco de Portugal (hereinafter referred as "the Bank") increased significantly as a result of the financial turmoil. All the internal quantitative indicators show that the demand for statistical data and metadata, as well as for statistical services made available by the Bank, have been growing at a fast pace. For instance:

- The Bank's structure in charge of statistical dissemination recorded 774 direct contacts in the first quarter of 2011 - 440 phone calls (comparing with 307 and 393 in the third and fourth quarters of 2010, respectively<sup>2</sup>) and 334 e-mails (comparing with 242 in the homologous period and 362 and 364 in the third and fourth quarters of 2010, respectively) - which amounts to a daily average of more than 12 contacts; and
- Both the number of active subscriptions and of registered users of BPstat | Statistics online<sup>3</sup> (hereinafter referred simply as "BPstat") are increasing at a rate higher than before – e.g., in the last two quarters the number of new registered users almost tripled (around 1,2 thousand) compared with the average number in the previous quarters.

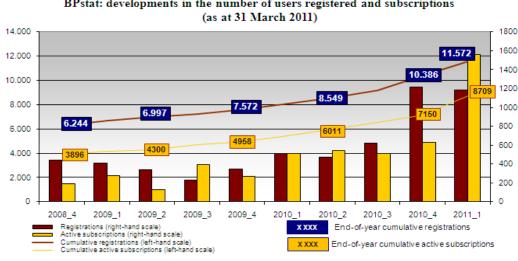


Figure 1 BPstat: developments in the number of users registered and subscriptions

<sup>1</sup> Banco de Portugal, Statistics Department, Statistical Dissemination Unit (SDU).

<sup>3</sup> The internet online service to access to the Statistical Interactive Database of the *Banco de Portugal*.

<sup>&</sup>lt;sup>2</sup> Data for the first quarter of 2010 is not available as the SDU become responsible for this task in June 2010.

Other indicators, e.g. the number of "clicks" in BP*stat* and in the static pages of the Bank's institutional website, point out in that same direction, thus supporting the idea that trust in central banking statistics has been reinforced in the wake of the last events. However, the most interesting feature is not the increasing use of statistics but rather the contacts that the Bank has been receiving on a daily basis, clearly revealing an effort on the part of the users in having a better understanding of statistics.

This paper tries to explain how we have conquered the trust of the users in the Bank's statistics and how we have increased the number of our "clients", in line with the Bank's strategy for the dissemination and communication of statistics. Firstly, it describes the state-of-play in 2004 and the first decisions taken for improving statistical communication; then, it describes the main phases of the Statistics Department's strategy in communicating statistics, including the plan for 2010-2012; finally, the challenges for the short-and long-term will be addressed as well as the key goals that the Bank aims to achieve, namely the ambition of a dedicated and cooperative communication specialised per type of user.

## 2. The infrastructure - the first layer

The strategic plan of the Statistics Department for the period <u>2004-2006</u> clearly stated that efforts should be directed to improving the statistics' disseminating function, with a view to increasing the use and the recognition of the Bank's statistics.

Until 2004, the regular diffusion of statistical data to national and, particularly, international organizations was the central task of the Bank's statistical dissemination. Beside a few tables and files, mostly dedicated to exchange rates, and the reference interest rates in the Bank's website, it was published a monthly statistical bulletin with 3382 statistical time-series. The dialogue with the users was minimum and almost restricted to e-mails asking for data not available in the Bank's monthly bulletin. Typically, the data would be extracted, by simple procedures, from the internal time-series database and, following an assessment of its confidentiality and statistical quality, a decision would be taken as to its possible release.

This system, a conservative and cautious model designed to keep the Bank away from the spotlight, thus avoiding possible controversies, was very inefficient for both the user of statistics and the Statistics Department. It was time to move from a "reactive model" to a "proactive model", i.e., one oriented to develop closer relationships with all the statistical users, thus actively seeking out opportunities for the statistics to be widely used and, to a certain extent, transforming statistical data into knowledge.<sup>4</sup>

A plan with three main steps was then defined and implemented:

- Firstly, a decision was taken as to substantially improve the monthly statistical bulletin by <u>January 2005</u> and to publish it in three different formats: (i) printed; (ii) accessible from the Bank's official website (including long time-series and metadata); and (iii) in a CD-ROM (including metadata, a search engine and all the statistical bulletins issued in the running year, thus offering the different versions of the data);
- Secondly, to initiate the publication of statistical press-releases closed linked to the new statistical domains and sub-domains that were identified in the strategic plan of the Statistics Department, having the first one been released on 21 March 2005; and
- Thirdly, it was decided to make a considerable investment in the provision to the public at large of a
  new internet online access to the Bank's Statistical Interactive Database by <u>January 2006</u>. The

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<sup>&</sup>lt;sup>4</sup> This new attitude is not yet fully assimilated by all that participate in the statistical production. There is still controversy and some people are afraid that the Bank may be misunderstood or, which is worst, blamed of trying to set its own political agenda. This is a clear risk that has to be minimized but cannot be completely avoided. Transparency, openness, visibility and clear communication are a key path to greater trust in statistics and have to be, at least, on the same level of other statistical dimensions – e.g. relevance, accuracy, timeliness and punctuality, accessibility and clarity, comparability and coherence.

resulting BP*stat* would allow for a quick and user-friendly access to all the statistics compiled by the Bank, as well as to statistics and economic indicators published by other institutions.

These three actions, and in particular the launching of BPstat, demanded a huge effort from all the Bank's departments involved in the production and use of statistics. The participants in the project worked together in a cooperative way, defining common structures and formats and developing and adjusting the data to the defined structure that had been designed with the users' needs in mind. All the details were defined for the new presentation of the data and the metadata (e.g. the name and designation of the series had to be amended to fulfil the defined rules and to be understandable by the general public). The data and metadata were considerably enlarged, improving the usability and accessibility of the statistical information shown in the Bank's website. This new system, fully bilingual and free of charge, also helped to define new standards – e.g., the release of all non-daily data at 11 o'clock according to an annual calendar disclosed ex ante<sup>5</sup>.

During the definition of the users' requirements and the feasibility phases of the BP*stat* project it was possible to benefit from the contributions of relevant users of statistics in Portugal – including a number of the Bank's officers and several representatives from e.g. the domestic financial sector, the research community and the media, which had the opportunity to offer their views and comments on the prototypes that were being developed. Due to technical and budget restrictions not all the suggestions received were accommodated. Nonetheless, the final outcome was very much appreciated by all the participants in the project.

The feedback received from BPstat users was also very good, supporting the idea that the new infrastructure was more than appropriate as a mean to disclose statistical data and metadata to the public at large. With BPstat the users no longer have to submit their data requests and wait for the Bank to send back the requested data<sup>6</sup>; instead, the information was now freely available in the internet and the users were automatically informed by e-mail whenever new data were released. In addition, they could design and save their own views in their "personal area".

The expansion of data and metadata was, on the one hand, very welcome by the users; but on the other hand some of them were showing signs of being a bit lost in this new data environment. To cope with this problem, the Bank created a hotline (by e-mail or telephone) that, in addition to providing assistance to BPstat users, allowed the Bank to assess more accurately and in more detail the needs and difficulties of the users.

From these contacts it became apparent that the users' profiles were very heterogeneous. Following a split up of the users by several different types, on the basis of their needs and the characteristics and volume of their requests, it was decided to implement specific action plans, starting with the research community and the media.

In the case of the former, the number of contacts received by e-mail from students and professors was very high (25 % of the total – see Figure 3) pointing out to a clear need for high quality data, long-time series (covering as many details as possible), easy to access databases, comprehensive metadata and micro-data and cross-country tables. In view of the Bank's commitment to fostering the use of central bank statistics, these data requirements were given effective consideration, even though their complexity and/or comprehensiveness prevented, in some cases, a prompt response.

Having in mind these particular needs, in 2006 the Bank initiated a set of visits to Universities to illustrate the importance of central bank statistics, with a special focus in the presentation of the data and functionalities available in the BPstat.

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<sup>&</sup>lt;sup>5</sup> Daily data is released in three blocks at 10 a.m.; 12 a.m. and 2:30 p.m..

<sup>&</sup>lt;sup>6</sup> The number of data requests decreased as the users become familiar with BPstat but a new type of e-mails, more technical and intended for non-published data, mainly for research purposes, started to be received on an increasing pace.

As regards the public media, the focus had to be assumedly more cautious, given that they are the *de facto* main distribution channel for central bank statistics, particularly as regards the public at large, which implied assigning top priority to their statistical needs. Moreover, the Bank had to take into account the specific nature of the data requirements associated to this type of users, which could be describe by two, often conflicting, characteristics:

- Firstly, the need for "fast" and "easy-to-read" information. Mainstream media reporters constantly press the Bank to get a fast explanation on a certain development or some additional data details that allows them to publish while the subject is still on the news. As soon as the data are disclosed by the Bank the reporter has to write a concise and as accurate as possible news release or article to be swiftly broadcasted by radio or television, and/or posted on the internet including social networking websites like Facebook, and Twitter and to accommodate the need for mobile and smartphone users to have constantly updated and easy-to-read information; and
- Secondly, the need to have more comprehensive data to substantiate a more in-depth analysis, particularly on the part of the specialized media.

#### 3. Going beyond data and metadata

On the basis of the success of BP*stat* and of the identification of specific users' needs, the Statistics Department Strategic Plan for the period 2007-2009 defined as one of its main goals: the "Expansion and dissemination of BP*stat* as a structural and main component of the statistical dissemination system in Banco de Portugal".

These goals were implemented along three main lines of action:

- Expanding the data and the metadata in the existing statistical domains and adding new ones in BPstat;
- Promoting seminars directed to the media, with dedicated sessions on specific statistics, using the data available in the monthly statistical bulletin and in BPstat; and
- Enlarging the visits to the most relevant Portuguese universities and to receive students and professors to present the statistics compiled by the Bank together with BP*stat*, and to discuss the analytical use for the research community of the available statistical data.

These dedicated actions addressed to specific types of "clients" were led by the Head of the Statistics Department and included presentations by Members of the Board. These initiatives had a huge success and are now hold on a regular basis.

In 2007 the seminars for the media took place during all year, with special sessions dedicated to specific statistics, covering all aspects, from methodologies to the analytics. These type of investment proved to be profitable as it allows to have a better understanding of the needs and the statistical literacy of the journalists and to increase the knowledge and the appetite of the media for the central bank statistics.

The importance of the media as a major statistical dissemination vehicle,<sup>7</sup> led to the idea that one should not only contribute to improve the media's statistical and financial literacy but also to monitor their activity, focusing in understanding which of the statistics produced by the Bank journalist are more interested in and why. With this in mind, the Bank promoted, in 2009, and for the very first time, an analysis of the "statistical information of Banco de Portugal in the Media". It focused on the following dimensions:

- Type of media;
- Format (news, article, etc.);
- Subject;

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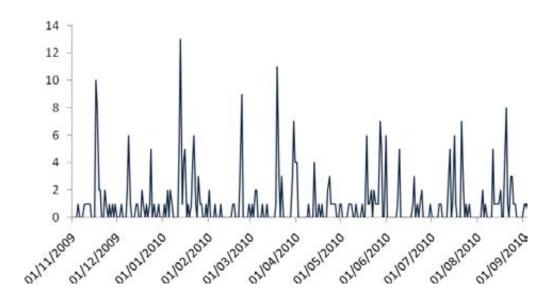
<sup>&</sup>lt;sup>7</sup> The large majority of people only have access to statistics via the media – the number of people that access directly the statistical sources is almost insignificant.

- Statistical domain; and
- Reference to the source/publication

An analysis of the distribution of the news along the year was also included. This work is now to be conducted on a yearly basis and, in 2010, an index of visibility was added to assess the impact of the statistics published by the Bank. There are a number of interesting conclusions that can be extracted from the 2010 report, *inter alia*:

- The press makes more reference to central bank statistics than all the other media together;
- More than 50% of the references to the Bank's statistics are in articles in the press;
- Monetary and financial statistics are the ones most used by the specialized press (54% of the references to Bank's statistics), followed by balance of payments statistics (29%); and
- The name of the publication, the statistical domain, etc. are usually not cited in 66% of the cases only the source (*Banco de Portugal*) is mentioned.

Figure 2
Number of news incorporating Bank statistics



During this period, not only new statistical data and metadata continued to be release in BPstat, on a daily basis,— adding new data segments and new series as well as improving the available metadata—, but also other components of the statistical dissemination system were finalised, namely an application to manage the metadata— allowing to create, share and identify the use of the metadata, in particular statistical notes and "free text" associated to statistical domains, time-series and dimensions of analysis or some of its components that are particularly important in the multidimensional analysis.

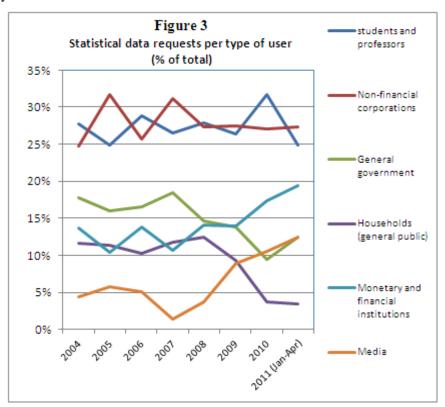
#### 4. Getting closer to the users – implementing a client service strategy

The 3rd strategic goal of the Statistics Department Strategic Plan for <u>2010-2012</u> explicitly highlights the importance of providing a good service to all users "to improve the ways of communicating statistical information, enhancing its use and promoting statistical literacy".

In <u>2010</u> an "Action Plan for Communicating Statistics" (PACIE) was defined. According to it, in the first Monday of every month a one-hour meeting is dedicated to the discussion of strategic points or the approval of specific action lines. This plan is focused on the implementation of a client service strategy that aims at satisfying the statistical users, taking in consideration their specific needs. It includes thirteen

objectives, to be achieved throughout the period 2010 – 2012, which are grouped into four clusters: (i) statistical dissemination policy; (ii) statistical publications; (iii) statistical users; and (iv) statistical dissemination channels.

In line with the belief that different types of users have different types of information needs, the Bank decided that it was time to move towards accommodating the data requirements of the non-financial corporations, which are the most frequent users of the Bank's statistics, together with the research community.



The improvements included in the statistics on non-financial corporations from the Central Balance Sheet Database – e.g. the availability of economic and financial indicators, ratios of profitability and financial debt, etc. – was a good opportunity for the Bank to reveal its willingness to understand the needs of thousands of companies operating in Portugal (most of them micro and small-sized enterprises) and to assist them in making more informed business decisions<sup>8</sup>.

In line with this concern, the Bank decided in 2010 to carry out a seminar aiming at:

- Fostering the use of statistics, in particular those acquired from the Central Balance Sheet Database;
- Disclosing the main outcomes of the analyses produced in the Statistics Department on the basis of such information; and
- Showing receptiveness to establish closer relationships with the non-financial corporations.

In same vein, the Bank decided in <u>2010</u> to transfer to the Statistical Dissemination Unit the phone calls received centrally that pertained to statistical issues. The growing responsibilities in the communication field led the Statistics Department to promote special training dedicated to improve the staff's

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<sup>&</sup>lt;sup>8</sup> The financial institutions and non-financial corporations that have reporting obligations, already, receve back some statistical data from the statistical production areas..

communicating skills. Significantly, the reaction by all type of users to the improvements in the quality of the service was very favourable, 9 as attested by the feedback received by phone or e-mail. 10

In 2011 and 2012 the general public will be one of the priorities! In this context, the responsibility for dealing directly with phone calls from the public helped us to have a better understanding of their difficulties and reinforced the idea of developing specific actions for this type of users. As this is a very heterogeneous and large group, the way to deal with the general public has to be addressed in a different way, mostly by producing or reusing educational material, publishing specific user guides (as it was done for BP*stat*), showing short movies on the statistics produced by the Bank, making good use of the new communication channels (e.g., social networking), etc. Some of the main action lines were finalised in 2010, e.g., the definition of the release dates and subjects for all the statistical press releases to carry out in 2011 and the production of a film on the Bank statistics dissemination system, with a particular focus on the BP*stat*. In June 2011 the Bank started publishing a new version of the "Main Indicators", which will be complemented with the production of a guide<sup>11</sup> to assist the statistical users in getting the most from this publication.

### 5. The future is now – the way forward

The present crisis is an opportunity to challenge the priorities and to understand that producing high quality statistic is at least as important as having people understanding and making good use of those statistics.

In Portugal the problem of productivity is of paramount importance and the public institutions should actively cooperate with all economic agents in promoting innovation and an efficient use of the available resources. The ambition is to develop a cooperative structure in communicating statistics that would permit to play relevant services with dedicated and personalised solutions to the users. In the short-term the objective is to implement an integrated and global statistical system that incorporates all the statistical production subsystems and the statistical dissemination activities. The idea is to keep on expanding the statistical function in the coming years, increasing the number of statistical domains, products and services, while retaining the ability to deliver high-quality statistics in a complex but more cooperative environment with data providers and statistical users.

For this aim, it is indispensable: (i) to create the technical and organizational conditions to succeed; and (ii) to evolve the scope of the statistical production to a statistical service oriented process. To develop a new and dynamic statistical system both hard and soft components will have to be considered. They are equally important: without a robust infrastructure it is very difficult to support an efficient processing and communication system and to quickly incorporate new developments in the technologies and in the people's habits. In parallel, the system needs to be based in knowledge and in the ability to constantly joint aspects that may seem dissonant but will have to live together, particularly when all the users' needs and characteristics are to be taken on board. In a world that is changing quickly and continuously with everincreasing competition, the number of deliverables and services the Bank have been providing will continue to grow, in parallel with forecast reductions in staff members in the coming years.

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<sup>&</sup>lt;sup>9</sup> The principle adopted is: listen and understand the user's needs and expectations, replying to e-mails and phone calls quickly, friendly and in a positive way, helping and encouraging them to contact us whenever they need to understand and to find the most appropriate statistics.

<sup>&</sup>lt;sup>10</sup> One particular investment bank recently said: "Thank you for your immediate response and your explicitly valuable help. Your service is really unique and, honestly, one of the most client-friendly services of central banks around the world"

<sup>&</sup>lt;sup>11</sup> It is still to be named. The title could be "Statistics for dummies" or similar but the final option may be for something more "institutional" and more connected to the publication of "Main indicators".

The investment in the information infrastructure, that in the last years have been oriented to the statistical production subsystems, will support the plans of having a completely new way to deal with the data collection for 2012, based in the internet and other mobile communication mechanisms changing the relationship with the data reporters and providing the conditions to increase the coverage, the quality and the informed use of statistics. This solution will start with the balance of payments and international investment position statistics and, subsequently, will be expanded to cover other statistics and to include personalised services for all the members.

In 2012 a new "revolution" in the Bank's statistical system is also expected to be launched. Under the umbrella of a portal for statistics all the dynamics mentioned before will have to be incorporated. Starting from the users' needs, the new system is expected to aggregate all the statistical components and to answer to the growing demand for statistical information. The present economic crisis brings a need for a closer follow-up of the economy and there is a clear need to go to higher levels of detail and to increase the analytics – more detailed data are being required and the statisticians have to be more open to work together with public and private entities. The decision taken by the Bank a few years ago to strongly invest in microdatabases and item-by-item reporting proved to be the most adequate, as it allows for additional flexibility to incorporate new requirements, to anticipate new data needs, to hasten statistical production and dissemination, to disclose data in different formats, to release micro-data, to extract more information from the statistical data, etc.

The Bank statistical communication developments have been driven by the belief that different types of users need different type of solutions. The ongoing or planned improvements in this area will allow for a deepening of this approach – the currently identified types of users will be further split to have a more precise dialogue and a better understanding of their needs. Also, to keep on delivering tailored solutions in a (likely) more demanding environment requires a comprehensive, integrated and very flexible statistical system, which, in turn, calls for the concept of a statistical portal.

With all the mentioned components in mind, our vision for the Bank's statistics in the coming years will consist in implementing a two-way, symmetrical, communication with the users of statistics - i.e., based on an honest and open communication that flows in both directions (rather than one-way direction), focusing on mutual benefits and efforts, attempting to achieve win-win solutions, emphasizing dialogue and understanding both needs and expectations. The following elements will guide the Bank actions in implementing this goal:

- (i) time and willingness to negotiate, adapt and make compromises;
- (ii) readiness to make adjustments in the way the Bank operates to accommodate different and sometimes conflicting user needs; and
- (iii) adoption of a close relationship aiming at reducing respondent burden and improving the overall quality and usefulness of statistics, while increasing its value and benefiting both the statistical producers and the users.