Simplified Business Information (IES): Impact of Admin Data in the production of Business Statistics

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Abstract

From 2006 statistical data on Structural Business Statistics, which were previously based on surveys, are exclusively produced from administrative data, namely the Simplified Business Information (Portuguese acronym: IES). This IES system results from the joint efforts of four public institutions and makes it possible to acquire administrative and statistical information in a coherent coordinated manner. This is conducted electronically, on a single occasion, for the whole population of enterprises, which simultaneously comply with their legal obligations, including in the field of statistics.

This paper describes, in addition to the setting up of IES, how Statistics Portugal has been making use of this information source in the current statistical production, which is not restricted to the production of statistics within the scope of the Regulation concerning structural business statistics (SBS Regulation). Rather, it covers other statistical areas, including intra-Community trade and even national accounts.

1.   The Simplified Business Information (IES) system

As of the beginning of the past decade the Portuguese Statistical Institute (hereinafter referred to as Statistics Portugal) has been seeking to use administrative sources for statistical purposes in a number of different areas. Notwithstanding the efforts meanwhile developed, the outcome was poor, especially in the field of business statistics. However, in 2005 due some protocols some administrative/tax information was made available on Portuguese enterprises, although it did not yet render the conduct of surveys dispensable,

nor the combination of different sources of information – surveys and administrative data – as regards the preparation of national accounts.

In early 2006, as the result of a programme set up by the Portuguese government with the purpose of simplifying and modernising the administration in order to make life easier for enterprises and citizens, a number of national public entities, including Statistics Portugal, took part in the creation of a system that made it possible to acquire administrative data while simultaneously complying with the following legal obligations of enterprises:

- Presentation of annual accounting and tax statements to the Ministry of Finance (tax administration);

- Recording of the presentation of accounts within the framework of commercial registry legislation;

- Supply of statistical business data to Statistics Portugal, to meet information needs aiming at fulfilling its obligations arising from participation in the European Statistical System;

- Accounting data reporting for statistical purposes to Portuguese Central Bank, within the scope of its participation in the European System of Central Banks.

The "Simplified Business Information (IES)" system was thus set up via Decree-Law No 8/2007 of 17 January. IES implementation was only possible with the major involvement of all interested parties. In addition to the public institutions behind its creation, it also had the committed support of the Chamber of Chartered Accountants, of enterprises supplying software to other enterprises and of insurance and banking supervisors. However, the policy support underlying this system must be considered as the key factor enabling its setting-up.

This system started to be prepared in February 2006 and was in place in April 2007 for the collection of data referring to 2006. The following steps have been taken to achieve this result:

— First all public institutions involved have identified their own needs, by the way of a list of characteristics;

— Afterwards these characteristics were compared, including in terms of concepts and definitions, and agreed upon the public institutions.

— Based on the final list, templates for data collection have been prepared.

— Instructions have been prepared as well as the more than 2.000 editing rules as the collection is made using internet.

— Update of the electronic platform used for data collection.

— Preparation of the new law for creating the IES.

— Alongside with all this work the administrative and legal issues have been discussed and agreed – platform to be used to collect data; confidentiality; sharing of data; transmission of data between partners; consulting national associations; creation of a call centre; etc.

Once implemented, the system has been accepted and acknowledged by all intervening parties – namely enterprises – as a measure effectively allowing for the reduction of the administrative burden. This stems from the whole system having been co-ordinately developed: information needs have been exhaustively identified as far as their different purposes were concerned, with recourse to harmonised concepts and definitions in the case of common needs. Each entity has undertaken not to have enterprises report information that was already covered by IES. The fact that data would only be supplied electronically in

the same format and on a single occasion, while simultaneously complying with four legal obligations, is a significant advantage for enterprises, notwithstanding the initial costs associated with the need to adapt their IT systems. Other important success factors have been the involvement of the Chamber of Chartered Accountants, which has promoted some fifty workshops throughout the country, counting on the participation of over 23,000 accountants (those generally responsible for complying with these legal obligations on behalf of enterprises), the commitment of software houses and also the strong policy support culminating in the creation of tailor-made legislation for the IES.

The national statistical system had then at its disposal basic statistical data exhaustively covering Portuguese enterprises, encompassing a wide range of mutually consistent statistical variables originating in a single source, and definitions fully in line with statistical needs. Also, the production of structural business statistics has had its time schedules shortened by at least 6 months.

2. Impact of IES on the production of structural business statistics

2.1. Structural Business Statistics Survey (SBS)

At the outset of Statistics Portugal's participation in the preparation of the IES, it defined as its main goal to phase out the annual conduct of the Structural Business Survey, with a view to producing these statistics exclusively from administrative data. This goal was reached the very first year of operation of the IES, and was even one of the features leading to the acceleration of the process of setting up the IES system.

The comparison of results obtained from the IES with those of previous sample surveys has led to an unequivocal conclusion: despite the use of highly dissimilar methodologies, there was no break in the series and data supplied by enterprises in the IES were not much different from those reported in previous years of survey.[1] On the other hand, the fact that there were available data for the whole population of enterprises[2][3] is also a guarantee of output quality, which already substantially narrows down the error associated with estimation.

Before IES, the SBS was based on three sample surveys (one for Annex I to IV, one for Annex V and the other one for Annex VI). The information collected was complemented with some Administrative Data received by Statistics Portugal on the base of a protocol with Tax Administration, and also with data received from the Portuguese Central Bank and the Portuguese Insurance Activity.

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[1] It should be noted that the IES system allows Statistics Portugal to establish ex post contacts with enterprises to check data and clarify any doubts regarding the statistical data transmitted. However, the outcome of these contacts and any possible adjustments to basic information are not shared with the remaining institutions involved, for they fall within the scope of statistical confidentiality.

[2] One could assume that the fact that Statistics Portugal started to acquire information for the whole population of enterprises would lead to an increase in the overall **statistical burden** on them. However, this is not the case, given that the overwhelming majority of the collected variables are made up of business obligations as regards taxes or the presentation of accounts, i.e. administrative obligations.
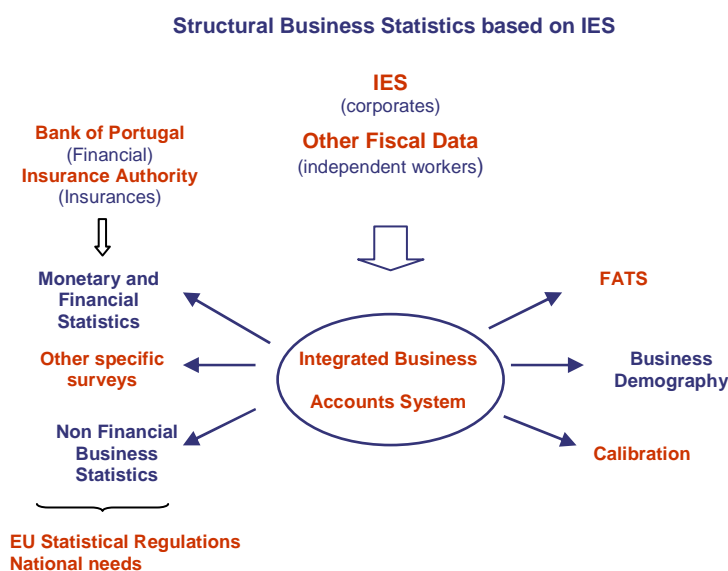
[3] Although enterprises have the legal obligation to present their accounts, there are nonetheless a few that do not comply with such an obligation, for example, in case accounts have not been approved by the shareholders' meeting, where applicable. These situations, although rare, require estimates to be produced for non-responses, which correspond to less than 4% of total enterprises.

The survey that supported the data production for Annex I to IV was launched for around 52.000 enterprises (corporate and sole proprietors). Data collection started in March and ended in January n+2. Results were disseminated 18 months after the reference period.

With IES those three surveys were abolished and all those variables that are now obtained through IES were eliminated from any other specific survey. The production system was then significantly changed.

The **Integrated Business Accounts System** (IBAS) started to being used as the basis of all statistical production for structural business statistics. The IBAS is an integrated system that compares and analyses data from all sources related with business statistics, being IES, of course, the most important one. A study of comparison is done with other information sources as Business Register, Lists of Personnel (of the Ministry of Labour and Social Solidarity),and specific surveys, in order to calculate the population of active enterprises that should be considered each year. For non response units (either late responses or non responses at all), it was implemented an estimation procedure, based on the responses that are already in the system (mainly through IES), by strata. With this procedure it's possible to have all the information (for all required variables) for the entire population.

Schematically speaking:

Structural Business Statistics based on IES

IES
(corporates)

Bank of Portugal
(Financial)
Insurance Authority
(Insurances)

Other Fiscal Data
(independent workers)

Monetary and Financial Statistics

FATS

Other specific surveys

Integrated Business Accounts System

Business Demography

Non Financial Business Statistics

Calibration

EU Statistical Regulations National needs

This complete set of information is then used for:

— Financial Services statistics when combined with statistical data received from the Portuguese Central Bank;

— Insurance Services statistics when combined with administrative data received from the Portuguese Insurance Authority;

— Non financial business statistics;

— FATS;

— Business Demography.

The IBAS is also the basis for calibration of all other business surveys, as on Business Services – where detailed data on the business services are collected by means of a specific survey. With this calibration is this possible to get consistency between all business data.

However, it is worth noting that some sectoral statistical data (industry, construction or trade) envisaged in the SBS Regulation are not acquired through IES;[4] these information needs were incorporated into other statistical operations that already existed or were specifically created for that purpose. In this case, data collection is based on surveys with very small samples compared with those from the Structural Business Survey.

The use of administrative data has brought greater consistency to statistical data produced, both as regards structural business statistics and business demography, as well as sectoral statistical operations. A number of studies and initiatives are under way to ensure coherence and compatibility of statistical data with those originating in different sources.

2.2. Other business surveys

With the implementation of IES, Statistics Portugal undertook not to collect data that were part of the IES in any other statistical operation it conducts. This is the case, for example, of the "Number of persons employed" variable, existing as a compulsory variable in a number of Community requirements.

This impossibility, which is envisaged in the law, has led to the in-house development of a system allowing each statistical operation to use the variables needed from the Data Warehouse specifically created with IES data.

Hence, for each of those sample business surveys, it is possible to acquire information from different variables forming part of the IES for every enterprise participating in the sample, or to use IES data in the output validation process.

The creation of IES and the use of administrative data has been an opportunity taken by Statistics Portugal to ensure consistency for all business statistics. Actually, in addition to the fact that coordinated samples had been defined for some time, with the purpose of reducing the statistical burden on the same enterprises, based on the IES, statistical output in different areas has been produced guaranteeing the respective coherence. This means that output was thereafter gauged based on IES information, in order to ensure consistency – using calibration methods. This has improved the quality of statistical data produced to a considerable extent, thereby clearly responding to user needs.

2.3. International trade statistics

IES collects data regarding variables on trade in goods and services within and outside the European Union (total annual figures).

These data are thus liable to be compared with output from international trade statistics. As regards intra-Community trade – which in the data analysis process uses administrative data resulting from the Value Added Tax (VAT) or information on the VAT Information Exchange System (VIES) – IES data are a further source of information validating business reporting within the framework of the Intrastat system.

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[4] This option derives from the acknowledgement that this would place an excessive burden on enterprises with an even wider set of variables, which in some cases shift away from accounting data.

Benefits reaped from IES use in the analysis of intra-Community trade statistics are immense, given that the methodological aspects underlying the IES system and the Intrastat system are more closely linked than they are with data obtained from VAT. Therefore, as of 2006 data could be checked at business level and hence the quality of international trade statistics was considerably improved. This is a remarkable advantage, especially since IES includes enterprises that are below the threshold,[5] as shown by the estimation for this business segment based on VAT data.

2.4. National accounts

Given that there is no single source of information allowing for the production of statistics with the level of detail and comprehensiveness required by national accounts, these often rely on various sources, namely surveys, administrative sources or other, not always mutually consistent.

IES was set up taking into consideration national accounts' needs for statistical data. Hence, a detailed set of information liable to be used in the preparation of national accounts was made available to Statistics Portugal, both in terms of variables and coverage, with the advantage of ensured data coherence and consistency. In fact, as a result of the IES, national accounts could access variables, for example, on production, imports, exports and employment. In the latter field, they could even access data on hours worked and temporary employment: these variables play an important role, and are always difficult to measure. In addition, it is also possible to access data on business activities by (domestic and external) markets.

Therefore, in the rebasing of Portuguese national accounts the incorporation of this new source of information was deemed an advantage, given that: it would allow for the coverage of the corporate sector, by eliminating the statistical error associated with the output estimation and extrapolation process; a single source contains information on the supply and income approaches; and it contains elements making it possible to compare and validate several national accounts aggregates such as production, intermediate consumption, GVA, employment, compensation, surplus, imports and exports.

4. Conclusion

It is not without relevance that statistics are produced from surveys or administrative sources (in the latter case, whether or not combining them with surveys). There are obvious differences at the level of output quality in these two options.

Having regard that the administrative burden or the statistical burden associated with the carrying out of surveys may affect the quality of enterprises' responses, due to weariness or lack of time, or also due to non-response or lack of quality in information reported, the option of using administrative data must be carefully weighted. Moreover, there is pressure on statistical systems to reduce the statistical burden, given that it is perceived to be an important component of the administrative burden. This occurs probably because the

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[5] Within the scope of the Intrastat system and aiming at reducing the statistical burden on small-sized enterprises, thresholds are defined below which enterprises are not required to report data on trade with Community partners. However, national statistical institutes must estimate those data.

immediate advantages resulting from the statistical information supplied are not recognised or for it is deemed to be a "less important" legal obligation or also because the statistical burden is often considered to be associated with surveys/forms issued by other public entities.

As a result, the path that statistical systems will inevitably follow is to use administrative data, phasing out data collection through surveys. To this end, national statistical institutes will have to work out methods to overcome difficulties associated with coverage (in terms of population and variables), scope, definitions, statistical units, data validation and the combination of different sources. Alternatively, in collaboration with entities holding administrative data, they can develop one or more coherent and integrated systems to gather administrative data, which statistical systems may use directly.

Despite there always being a trade-off, and the use of administrative data being never without difficulties, the IES system developed in Portugal is somehow innovative, given that it minimises the drawbacks usually associated with the use of administrative data:

— First of all, IES covers a wide range of structural business statistics acquired through the same source, which grants it a high level of coherence.

— Given that its electronic transmission has an associated set of more than 2,000 editing rules, it ensures consistence across elements supplied by enterprises from an early stage.

— The fact that this system allows Statistics Portugal to contact enterprises in order to check information acquired and make possible adjustments – addressed in full respect for the principles of statistical confidentiality – is an additional quality assurance factor.

— Finally, and perhaps the chief advantage, IES has been set up with the active participation of Statistics Portugal, the national statistical authority, which ensured that statistical needs have been taken into consideration from the inception. Hence, it was possible to ensure the coverage of variables, units, definitions and time schedules compatible with the needs of national statistical production.

In sum, the IES is a system developed in partnership with Statistics Portugal, with the purpose of allowing for the replacement of surveys with the use of administrative data, account having been taken of all aspects in which the use of administrative data is generally deemed to be instrumental.

The IES system was developed bearing in mind that was necessary to satisfying the information needs of the different intervening entities. This not only allowed for access to the required information, but also made it possible to streamline and make an optimal use of data reported by enterprises.

The creation of the IES system is acknowledged by all as a measure long demanded to the Portuguese administration. Enterprises were required to report substantially identical information to four different entities on distinct occasions and formats. Notwithstanding the costs that enterprises had to bear in adapting their IT systems, they consider that there can be no turning back to the former state of affairs.

Overall, for the Portuguese statistical system, IES represents a giant leap forward towards the improvement in the quality dimensions - coverage, coherence, punctuality, timeliness, comparability and reliability - of business statistics. In sum, towards improved quality for statistical data, while taking into consideration all their qualifying features.