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Going further than ITRS to draw up the French BOP: three tailor-made surveys¹

Cécile Golfier,
Bank of France

¹ This paper was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

Going further than ITRS to draw up the French BOP

Three tailor-made surveys

Cécile Golfier¹, Banque de France

Abstract

The 2008 financial crisis broke out against a backdrop of corporate globalisation and financial innovation. Two decades after financial liberalisation and given that further globalisation is a milestone towards firms' recovery, the measure of international transactions and positions is crucial for guaranteeing financial stability. This monitoring contributes to the overall prevention of disequilibria in the private sector.

In France, the measure based on the International Transactions Reporting System (ITRS) became irrelevant when foreign exchange controls were abolished in 1989. In 2011, three surveys were launched to continue capturing firms' involvement in the global economy. All three of them are integrated into the national survey system. The direct questioning of firms provides richer and more precise information for the Balance of Payments (BOP) and the International Investment Position (IIP) than the ITRS. The new instruments gave the opportunity to improve the quality of data, because they are fitted to their purposes.

While all largest contributors must report, the other firms are covered by random surveys, with a lower frequency and, for one survey, fewer details.

For international trade in services, the breakdown of the collected transactions complies with the Sixth Edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6). For the survey, the selection of firms is based on Customs data in order to focus on firms that actually buy or sell services to European counterparts.

As regards commercial and financial assets and liabilities, two tailor-made surveys capture the components of the IIP and measure the interest paid on intra-group financial loans. They were recently reviewed to improve the precision of the assessment of financial stocks, while slightly decreasing firms' reporting burden.

Keywords: balance of payments, international investment position, trade in services, international assets and liabilities, corporate globalisation

¹ With the help of Martial Ranvier and Hadrien Caradant.

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1. Three post-ITRS surveys for the BoP and the IIP

In France, under the foreign exchange control regime, the International Transactions Reporting System (ITRS) was used to compile data on trade in services for the Balance of Payments (BoP), as well as the financial and commercial loans entering the financial account and the International Investment Position (IIP).

The end of foreign exchange controls in 1989 led to a sharp decrease in ITRS reporting. The 2008 financial crisis highlighted the need to monitor firms' activity and financial structure. In 2011, the Banque de France set up a new measurement framework that would sidestep the ITRS shortcomings.

1.1. France has adopted a dual system to collect firms' data

In 1990, the Banque de France brought about a major change in its statistical system: it ended the indirect measure *via* the banking system of international trade in services and positions, and engaged in a direct relationship with firms. The new system addresses the intrinsic shortcomings of ITRS when used for measuring services and positions:

- no possibility for BOP compilers to check data through a direct contact with firms;
- incomplete data:
 - the reporting threshold was biased as regards trade in services, because it was calculated on goods and services; furthermore, it stood at a high level (initially set at EUR 12,500, it has gradually been raised to EUR 50,000);
 - there was no information on intra-group transactions without payment;
 - settlements involving non-resident banks were not taken into account;
- heavy reporting burden for banks.

A two-fold system was set up to face the challenge, with clear benefits in terms of data quality and reporting burden. From 1990, non-financial corporations and insurance companies trading for more than EUR 30 million or with revenues above this threshold were classified in the so-called "Full Direct Reporters" (FDRs) category. The system was refined in 2003. All FDRs must report for the three new questionnaires that are for this population "censuses". The other firms are covered by surveys.

As regards trade in services, FDRs have been monitored since 1990 using a specific monthly questionnaire [Economic Transactions Reporting – "*Relevé de Transactions Économiques*" (RTE)]. Transactions are broken down by category, in line with the Sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6) requirements, and by counterparty country. For the rest of the economy, the reporting burden is smaller: the Complementary survey on international trade in services ["*Enquête complémentaire sur les échanges internationaux de services*" (ECEIS)] is an annual random survey conducted using a sample of 5,500 firms (1% of the survey scope) and with fewer questions and details than in RTE.

As regards international assets and liabilities, two surveys – one for commercial outstandings, the other for financial outstandings– are the same for FDRs and other

firms. The frequency is the only difference: quarterly for all FDRs, quarterly or annual for the others. For non FDR firms, the sample has 1,600 firms for commercial outstandings (0.2%) and 2,000 firms for financial outstandings (2%).

For the three surveys, data are collected via a secure website, OneGate. This IT platform was designed and used to be maintained in cooperation with the National Bank of Belgium. Firms have the choice between entering data online and uploading a file.

Box 1

A largely integrated survey system for BOP and IIP

The three surveys in the French legal and statistical environment

The surveys on international trade in services (ECEIS) and on assets and liabilities (ECO and EFI) are fully integrated into the French legal and statistical environment.

The general framework is defined by regulation (EC) No. 184/2005 of the European Parliament and of the Council of 12 January 2005 on Community statistics concerning balance of payments, international trade in services and foreign direct investment. At the national level, the Monetary and Financial Code (Article 141-6.2) provides, under the Statutes of the Banque de France, that the Banque de France “shall establish the balance of payments and the external position of France. It shall contribute to the establishment of the balance of payments and to the overall external position of the euro area in the framework of its membership in the European System of Central Banks as well as to the establishment of the statistics of the European Union in the area of balance of payments, international trade in services and foreign direct investments”.

For the three surveys, the reference population is based on the French Statistical Business Register SIRUS (Identification System to Statistical Units Register – *Système d’identification au repertoire des unités statistiques*) produced by INSEE, the French National Statistical Institute. It contains eight million firms.

The surveys for non FDRs are authorised by the National Council for Statistical Information [“*Conseil national de l’information statistique*” (CNIS)]. ^①

^① The survey of FDRs is set out in decision 2007-01 of the Banque de France; FDRs have the obligation to report their trade in services and their international assets and liabilities.

Nowadays, the key points for the quality of data are the response rate and the accuracy of the answers. In that view, a modernising of the statistical portal and a clarification in the methodological documents have been conducted.

However, as globalisation is still underway, the current system will also certainly need to be adjusted in the future. Indeed, the surveys currently used all deal with legal units. The next step will probably be to address the structure of multinationals by considering the “enterprise” as defined by Council regulation (EEC) No. 696/93.

1.2. A 360° delineation of the survey frames

1.2.1. A multi-criteria selection for the services survey frame

Under the ITRS system, some information on international trade in services was found in the Payments report (“*Compte rendu de paiements*” – CRP).

ECEIS survey went to live in 2011. Its population of 6 million firms covers all industries except public administrations, financial and insurance activities and extraterritorial activities. These industries are identified with the French APE code in SIRUS (the French code in line with the International Standard Industrial Classification of All Economic Activities (ISIC rev.4)).

Within the population, the survey scope covers firms that are engaged in international trade in services. For that purpose, two administrative sources are used depending on the counterparty area:

- for transactions within the European Union: the Customs database is used [European Declaration of Services – “Déclaration européenne de services” (DES)] – compiled by the Directorate General of Customs and Indirect Taxes [“Direction générale des douanes et droits indirects” (DGDDI)];
- for extra-EU transactions, an ITRS report collecting transactions in services with countries located outside the Single Euro Payments Area (SEPA), known as Customer Payment Report (“Relevé de Paiement Clientèle” (RPC)), provides the best estimate.

In order to define the survey scope, export and import proxies (i.e. rough estimates) are calculated for each firm. For the year 2017, 400,000 firms were identified as players in the international trade in services.

The definition of the survey frame is operated in two phases. In a first step, the main survey frame is composed of two building blocks:

- a primary main survey frame is set up with firms whose trade in services is presumed higher than EUR 200,000 of exports and/or EUR 75,000 of imports². An additional selection is made on proxies obtained from the accounting database ESANE³ (produced by INSEE), which contains annual tax declarations (structural business statistics). There were roughly 48,500 firms in the main survey frame for the reference year 2017; they accounted for more than 95% of French international trade in services not measured by RTE;
- a “safety net” is then added to the primary component; it is made up with 1,500 firms: on the one hand, firms with a turnover above EUR 100 million according to their tax declaration; on the other, firms that belong to an international group (the information on Financial links is found in LIFI, produced by INSEE) and have a “high turnover” relative to the rest of their industry.

In a second step, all the remaining firms are considered as part of the supplementary survey frame. This component allows enlarging the sample to all the scope, with a very low survey rate. This gives a chance to pick up some firms with trade in services but not selected in the main survey frame.

² Many firms import services to conduct their activity; the amount is one component of their purchases among others; it is proportional to their inclusion in the global value chain. Fewer firms export services; it is then one element of the turnover and the value is in most of the case higher than the value of import.

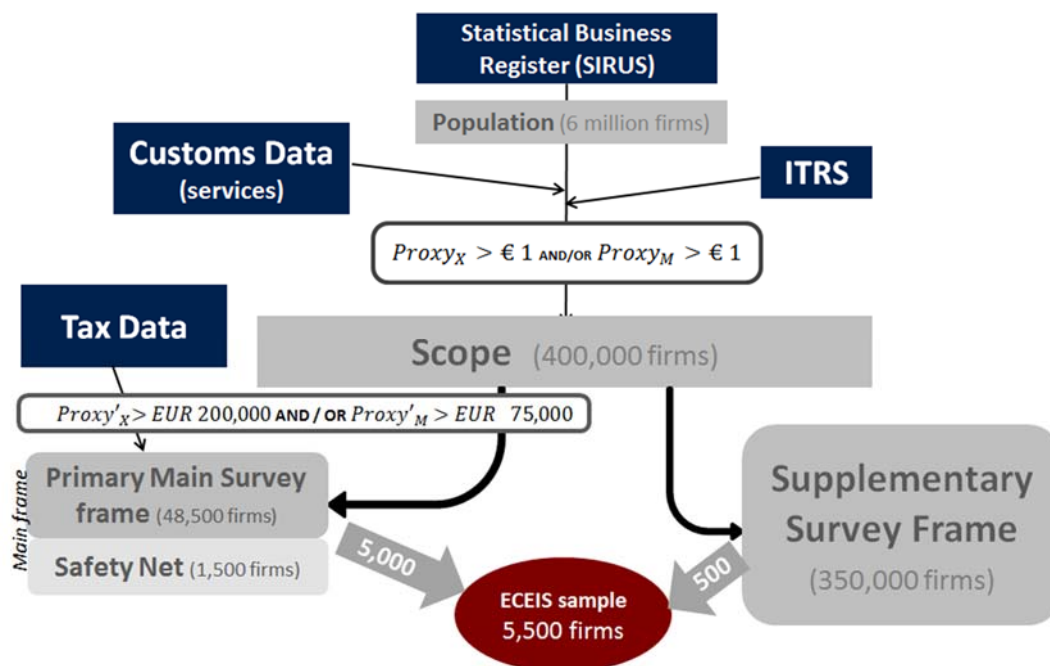
³ ESANE provides tax data reported by firms to the French National Tax Office [“Direction générale des impôts” (DGI)] and completed by the Annual Sectoral Survey [“Enquête sectorielle annuelle” (ESA)].

Main and supplementary survey frames are stratified by industry (seven categories) crossed, for the main survey frame, with turnover. The latter is obtained from the Banque de France's FIBEN company database ("Fichier Bancaire des Entreprises")⁴. When it is not available in FIBEN, turnover is picked up from INSEE's ESANE database.

On that basis, the survey sample is randomly selected as follows:

- 5,000 firms from the main survey frame;
- 500 firms from the supplementary survey frame. (Chart 1)

Chart 1 ECEIS sample definition



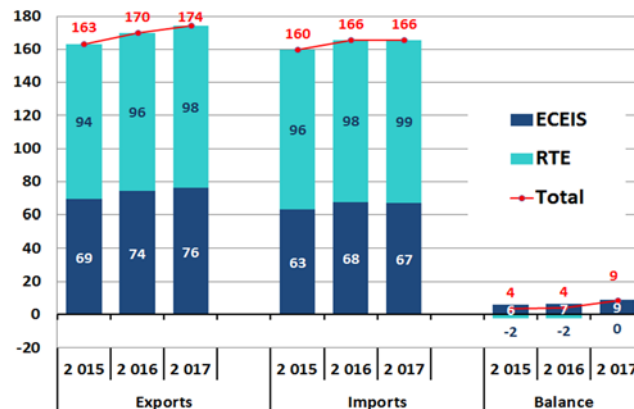
Source: Banque de France

Reporting firms break down all their data on trade in services by category of services, in line with the classification of the BPM6. For each category of services bought or sold, reporting firms must detail the transactions with the top three counterpart countries (name of the country and amount paid or received). If there are any other counterpart countries, firms report their number and the relevant global amount (sum of exports or imports with the set of non-individualised countries).

ECEIS accounts for 40% of the international trade in services measured by both services surveys (Chart 2).

⁴ The FIBEN company database contains detailed information on 250,000 firms, which are selected according to at least one of the two following criteria: a turnover of at least EUR 0.75 million or bank loans disclosed to the Banque de France's central credit register of at least EUR 0.38 million.

Chart 2 International trade in services excluding travel measured by RTE and ECEIS for the French BOP
euro billion



Note: Trade in services measured by RTE and ECEIS do not include travel, financial intermediation services indirectly measured (FISIM) and the price of transport included in goods prices (“fobisation”).

Source: Banque de France

1.2.2. Twin surveys to complement an FDI questionnaire

Data on foreign direct investment (FDI) in equity and real estate are collected separately as soon as a transaction reaches EUR 15 million or the FDI holding in a firm reaches EUR 5 million (Box 2).

Box2

The FDI specific collection process

The FDI basic collection process covers non-financial and financial corporates.

Stocks have to be declared as soon as the FDI holding in a firm reaches EUR 5 million or the total FDI assets of a firm reaches EUR 10 million.

The main channel to collect FDI transactions is a questionnaire, for all transactions above EUR 15 million. For the year 2017, 1,450 transactions out of the 1,800 transactions recorded have been collected via this questionnaire (of which 1,100 have been filled by FDRs).

It relates both inwards and outwards FDI, for investments as well as divestments. It covers FDI in equity and in real estate. It has to be sent to the Banque de France within 20 days after the transaction.

Some other transactions are identified:

- at the end of each year when compiling stocks, reconciling FDI stocks and flows points to some additional flows; for the year 2017, 300 transactions have been identified likewise;
- the financial market regulator [“Autorité des marchés financiers” (AMF)] releases information when the participation in listed companies crosses thresholds; for the year 2017, 50 transactions have been added.

1,800 individual FDI transactions recorded in 2017

- **FDI questionnaire: 1,450 transactions**
 - Full direct reporters (FDRs) : 1,100 transactions
 - Non FDRs firms : 350 transactions
- **Yearly stocks compiling : 300 transactions**
- **Financial market regulator: 50 transactions**

The FDI statistics have recently been expanded with the identification of the Ultimate Investing Country (UIC), thanks to the use of LIFI, the financial links database produced by INSEE. The Banque de France has also been testing a breakdown of the FDI by purpose, in order to distinguish between greenfield investment (creation from scratch), brownfield investment (extension), mergers and acquisitions and financial restructuring.

For investments not covered by the FDI-specific collection process, two surveys have been set up: the ECO survey covers commercial assets and liabilities vis-à-vis non-residents and the EFI survey deals with financial assets and liabilities vis-à-vis non-residents. All FDRs are surveyed on a quarterly basis for both of them; for the other non-financial corporations, the reporting frequency depends on the expected amount: the most globalised firms report on a quarterly basis; the others on an annual basis. For ECO and EFI, the questions are the same for both populations (FDRs and other firms).

When the reported value relates to an affiliated entity, it is recorded as a “direct investment” in the financial account of the balance of payments and in the measurement of the international investment position. If the counterparty is not an affiliate, the reported value is recorded under “other investment”.

The ECO and EFI surveys are derived from questionnaires respectively known as “E84” and “E90”, which used to prevail under the ITRS system. These questionnaires were aimed at collecting stocks to complement the information on transactions collected through the ITRS system.

1.2.2.1 ECO for Commercial assets and liabilities

The ECO survey provides a measure of outstanding amounts of trade receivables and payables of resident non-financial corporations vis-à-vis non-residents.

For firms that are not FDRs, the survey sample is generated on the basis of auxiliary information contained in administrative and accounting databases, i.e.:

- SIRUS (see box 1 above);
- Customs data, used to define the sampling frame and stratify the annual component of it;
- FIBEN, used for a consistency check of the Customs data and as auxiliary information to calculate proxies for assets and liabilities;
- LIFI (see box 2 above), used to stratify the annual sampling frame based on international group membership.

Firstly, the survey population is comprised of resident non-financial corporations, identified by their SIREN identification number, which are not engaged in financial activities, life insurance, reinsurance, pension funds, activities operated by households as employers and extraterritorial activities. The industry is identified by the APE code in SIRUS. The population contains 6 million firms.

Secondly, those that are also in the Customs database are selected for the survey scope; they are firms that engage in international trade in goods and services. In 2017, they amounted to 700,000.

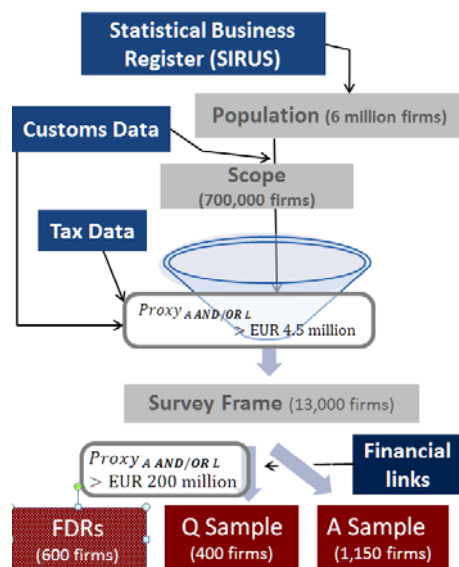
Thirdly, companies with annual imports or exports that exceed EUR 4.5 million are selected for the survey frame (13,000 firms). To achieve this, Customs data are benchmarked with tax data collected in FIBEN, if available (profit and loss accounts items):

- if imports in the Customs database are higher than total purchases in FIBEN, the latter are considered as the import value;
- exports are capped by the turnover in FIBEN.

Fourthly, a proxy for international commercial assets or liabilities firms is calculated on the basis of Customs data and auxiliary information contained in FIBEN. Firms with a proxy higher than EUR 200 million are included in the quarterly sample; these are exhaustively surveyed. For the year 2017, they totalled 400.

Lastly, firms are randomly drawn to be put into the annual sample according to a stratified sampling design, out of the remaining component of the sampling frame (stratification according to whether or not they belong to an international group, cross-referenced with the past two-year average proxy for international assets and liabilities). For the 2017 annual sample, 1,150 firms were drawn out of 13,000 firms. One quarter of it is renewed each year. (Chart 3)

Chart 3 ECO sample definition



Source: Banque de France

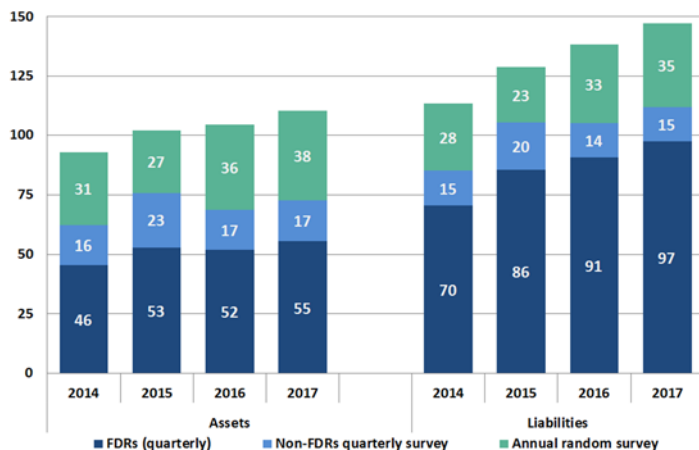
The positions to be declared are found in four specific items of the balance sheet:

- trade receivables;
- trade payables;
- advances and down-payments paid;
- advances and down-payments received.

This information must be broken down by currency of denomination, by country of residence of the counterparty and by nature of the relationship with the counterparty (affiliated or not).

As expected, commercial assets and liabilities mostly stem from the quarterly component of the ECO sample (Chart 4).

Chart 4 International assets and liabilities measured by ECO
Yearly average, euro billion



Source: Banque de France

1.2.2.2 EFI for Financial assets and liabilities

The EFI survey provides an assessment of outstanding amounts of financial assets and liabilities of resident non-financial corporations vis-à-vis non-residents.

For firms not covered by FDR rules, the survey sampling frame is constructed on the basis of administrative and accounting information:

- SIRUS (INSEE): the statistical business register is used to identify companies;
- LIFI (INSEE): the financial links database is used to identify international groups;
- FIBEN (Banque de France) and ESANE (INSEE): tax data are used to identify the relevant firms and to stratify the sampling frame⁵.

Firstly, the survey population is comprised of resident non-financial corporations, identified in the SIRUS statistical business register by their SIREN identification number, which are not engaged in pension funds and extraterritorial activities. The industry is identified by the APE code in SIRUS. The population comprises 6 million legal units.

They are put into the survey scope if they are identified in LIFI as members of multinational groups. A few other firms are added on the basis of information obtained via the FDI collection process, or because previous year's EFI captured international assets or liabilities. There are 94,000 firms in the scope.

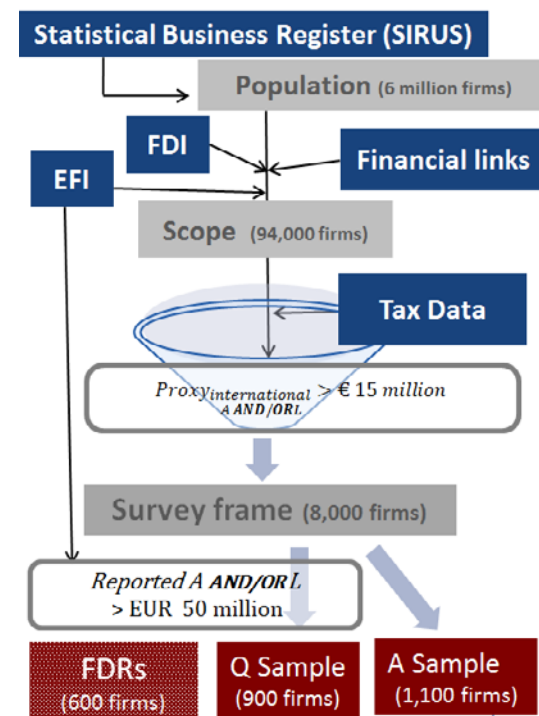
Only those with financial assets or liabilities above EUR 15 million according to the FIBEN or ESANE databases are kept for the survey frame. For the year 2017, the latter contained 8,000 firms.

⁵ ESANE contains information on all firms, but aggregates certain tax data (that is not the case in FIBEN), and the publication lag is longer than for FIBEN.

Firms that declared financial assets or liabilities of more than EUR 50 million in the previous year's EFI survey are included in the quarterly sample. They are exhaustively surveyed. So are the firms identified via the FDI collection process. If necessary, the quarterly sample is completed in order to reach 900 firms by selecting firms on the decreasing value of their proxy for international assets and liabilities.

The firms in the annual sample are drawn randomly according to a stratified sampling design from the remaining component of the sampling frame (stratification according to whether or not the firms belong to a French or foreign international group, cross-referenced with the total value of the proxy for outstanding assets and liabilities). For the year 2017, the annual sample contained 1,100 firms. One quarter of it is renewed each year. (Chart 5)

Chart 5 EFI sample definition



Source: Banque de France

The breakdown of values is the same as for the ECO survey: the information must be broken down by currency of denomination, by country of residence of the counterparty and by nature of the relationship with the counterparty (affiliated or not).

In addition to positions, interest received from or paid to affiliates is requested. This information is used to compile the "interest" sub-heading of "direct investment income" under "primary income" of the balance of payments.

As for the ECO survey, financial assets and liabilities are mostly measured on a quarterly basis, but with outstanding amounts two to three times higher than for ECO (Chart 6).

Chart 6 International assets and liabilities measured by EFI
Yearly average, euro billion



Source: Banque de France

2. Fine-tuning the measure of financial assets and liabilities measure

The financial assets and liabilities compiled through the EFI survey are larger than those compiled through the ECO survey, while the hierarchy of sample sizes used to be the reverse. Furthermore, the variability was higher for EFI than for ECO. The measurement system was therefore adjusted in 2017.

2.1 The need to adjust the ECO/EFI system

The structure of the figures produced by the ECO and EFI surveys highlighted the need to adjust the framework.

In line with the assigned objective, both surveys provided larger values for “direct investment” than for “other investment”. For the year 2014, the values were respectively EUR 650 billion and EUR 185 billion.

As expected, the main contributions to the international investment position stem from the quarterly components of both surveys. For instance, in the foreign direct investment data compiled for the year 2014, 74% of the value came from the quarterly component of EFI, whereas only 11% came from its annual component; similarly, the FDI data obtained through ECO mostly came from its quarterly component (12%, compared to 3% for the annual component).

However, the contributions of the different components were not optimal in terms of the total amounts measured. The positions collected through the EFI survey accounted for 85% of FDI measured by ECO and EFI surveys (EUR 550 billion out of EUR 650 billion). Yet, the contribution to total FDI of EFI annual sample was equivalent to that of ECO quarterly sample (respectively 11% and 12% as commented above). There was clearly a need to rebalance the contributions from quarterly ECO to EFI. (Table 1)

International investment positions measured by ECO and EFI for 2014

Sum of assets and liabilities

Table 1

	Amount			Annual	Total	Share			Annual	Total
	Quarterly FDRs	Others	Sub-total			Quarterly FDRs	Others	Total		
Direct investment	375	185	559	92	651	58	28	86	14	100
of which EFI	320	164	484	70	554	49	25	74	11	85
of which ECO	54	21	75	22	97	8	3	12	3	15
Other investment	104	47	151	35	185	56	25	81	19	100
of which EFI	37	24	61	9	70	20	13	33	5	38
of which ECO	67	23	90	25	115	36	12.5	48.5	13.5	62

Source: Banque de France

The time required for compiling data was another reason for reviewing the frequency structure of the surveys: the initial structure induced relatively large revisions once a year, when the annual figures were produced.

Indeed, when the figures are compiled at the very beginning of year N+1 for the annual report covering year N, only the quarterly data are available for year N. Including annual data implies carrying out revisions one year later, at the beginning of year N+2.

As regards the EFI survey, the data contained in the first publication were too much based on estimated annual data. For FDI data measured by EFI, the revision was close to EUR 30 billion for 2012 and 2013 data (but below EUR 10 billion for 2014). (Table 2)

ECO and EFI Revision

from estimation to collected data

Table 2

	2012		2013		2014	
	EUR billion	%	EUR billion	%	EUR billion	%
Direct investment	26	28	27.5	28	10.5	11
of which EFI	28	39	29	38	8.5	12
of which ECO	-2	-10	-1.5	-8	2	8
Other investment	-11	25	-3	-7.5	-1.5	-4
of which EFI	-14	80	-2	-10.5	-3.5	-36
of which ECO	3	13	-1	-5	2	8

Source: Banque de France

2.2 Rebalancing the samples towards the financial FDI measure

The rebalancing of the survey schemes to improve the financial FDI measure was carried out under the dual objective of increasing the global precision of the IIP measure and reducing the firms' reporting burden.

It was designed with the objective of keeping the number of firms surveyed unchanged or reducing it. Indeed, there is a general commitment in France to simplifying firms' administrative environment of firms. When authorising a survey, the CNIS makes sure that the reporting burden is reasonable for firms. At the same time, the Banque de France has been engaged in a large simplification process. In particular, it has been paying special attention to its bilateral relationships with firms.

Simulations were made under the hypothesis of a reduction in the ECO quarterly sample from 871 to 375 and an increase in the EFI quarterly sample from 574 to 864. The new scheme reduces the ECO survey rate by 3 points, to 17%, and increases that of the EFI survey by 4 points, to 38%. (Table 3)

		Current frame		Simulated frame	
		Sample	Survey rate	Sample	Survey rate
ECO	FDRs	615	100%	615	100%
	Quarterly	871	100%	375	100%
	Annual	970	9%	1,170	10%
	Total	2,456	20%	2,160	17%
EFI	FDRs	615	100%	615	100%
	Quarterly	574	100%	864	100%
	Annual	1,110	20%	1,116	21%
	Total	2,299	34%	2,595	38%
ECO + EFI	FDRs	615	100%	615	100%
	Quarterly	1,445	100%	1,239	100%
	Annual	2,080	12%	2,286	14%
	Total	4,140	22%	4,140	22%

Source: Banque de France

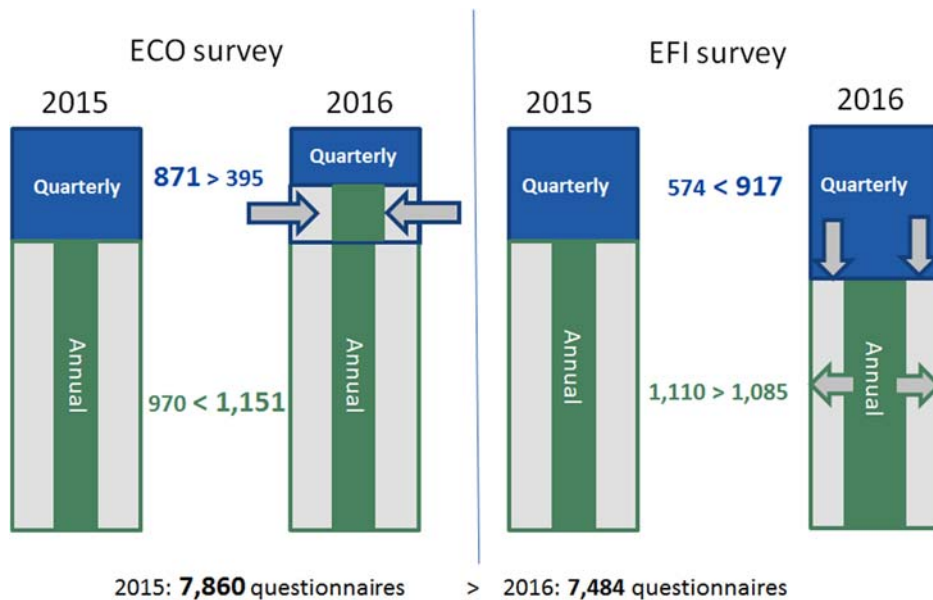
The assessment of the reform's impact on the reporting burden must take into account the time spent answering the respective questionnaires. The average reported time spent answering the survey is lower for EFI than for ECO, because in general a firm has relationships with more countries for its providers and customers (relevant for ECO) than for its affiliates (mainly relevant for EFI). The annual median durations (including the gathering of information) are:

- for ECO, 135 minutes for a quarterly questionnaire, 95 minutes for an annual questionnaire;
- for EFI, 35 minutes for a quarterly questionnaire, 20 minutes for an annual questionnaire⁶.

In the end, the reform alleviates the reporting burden. The simulation points to an 8% decrease in the number of questionnaires and a resulting about 30% decline in the median time spent by the whole community of firms.

In practice, there were some small differences with the planned revision of the samples. The total number of firms surveyed by both surveys decreased, but the size of the EFI sample increased slightly more than initially planned. The number of questionnaires was reduced by 5% and the time spent by the whole community of firms by about 30% as planned. (Chart 7)

Chart 7: The rebalancing of ECO and EFI samples carried out in 2017



Source: Banque de France

2.3 Stabilising the quarterly and annual samples

For the ECO and EFI surveys, the collection process was each year pretty much impacted by shifts of firms from the quarterly component of the sample to the annual component and conversely. The result was an artificial increase in the variability of the compiled data. In addition, firms face an undesirable cost when overhauling their IT system in order to change the frequency of the reporting.

⁶ Quarterly surveys are filled by the largest contributors. These latter report in most of the cases assets and liabilities vis-à-vis a higher number of counterpart countries than firms which report on an annual basis.

There are two reasons for the numerous changes in frequency: the volatility of the proxies and, for ECO, the concentration of firms in the neighbourhood of the threshold delineating quarterly and annual samples. One specific solution was designed for each survey to reduce the impact of these elements.

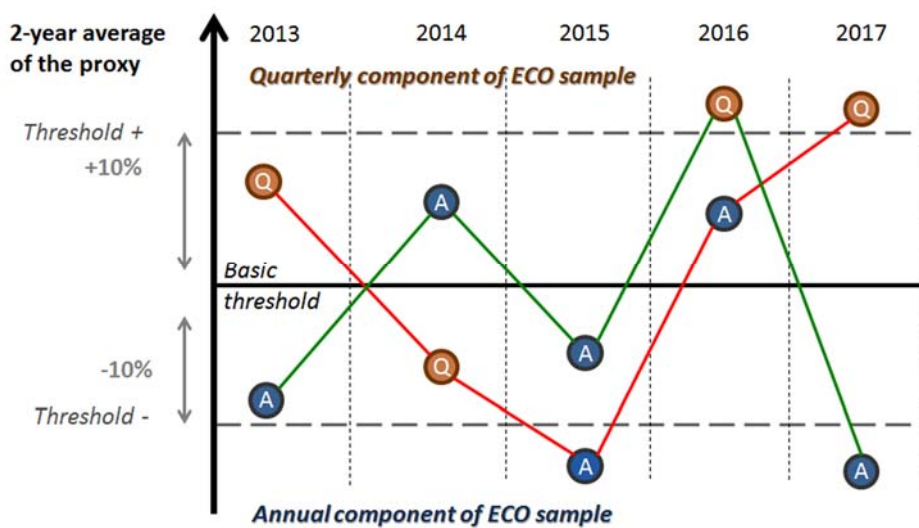
2.3.1 A “no-man’s land” for ECO

As regards ECO, the solution implemented as of 2017 data is twofold:

- the information used to review the frequency qualification is now a two-year average, instead of the last year value;
- the threshold for a change in the frequency depends on the current frequency, through a “no-man’s land” mechanism.

Henceforth, a firm shall change frequency only if the two-year average of the proxy crosses the “no-man’s land” threshold, i.e. only if the two-year averaged proxy deviates by more than 10% from the basic threshold. (Chart 7)

Chart 7: ECO sampling scheme stabilisation system: a “no-man’s land”



Key: The red and green lines show the respective paths followed by two different firms. The firm tracked by the red line is surveyed on a quarterly basis for the year 2013. In 2014, the 2-year average of the proxy falls below the basic threshold but is still above the lower limit of the “no-man’s land”; thus the firm remains in the quarterly sample. By contrast, in 2015, the 2-year average of the proxy falls below the lower limit of the “no-man’s land”; in these conditions, there is a change in the frequency for the 2015 survey. After that, the value of the 2-year average of the proxy increases for two years. The firm returns to the quarterly sample only for the 2017 survey, when the proxy exceeds the upper limit of the “no-man’s land”.

Source: Banque de France

The ex-post simulation of the “no man’s land” indicates a reduction in the number of frequency changes ranging from 50 between 2012 and 2013 to 90 between 2011 and 2012. The average reduction represents 45% of the number of changes in the frequency. (Table 4)

Annual frequency shifts for ECO

Number of firms which change frequency between two successive years Table 4

Nature of the shift	2011	2012	2013	2014	Total
	→2012	→2013	→2014	→2015	
Actual methodology until 2016					
Quarterly to annual	51	62	60	97	270
Annual to quarterly	99	94	103	81	377
Total (A)	150	156	163	178	647
Ex-post simulation of the "no-man's land"					
Quarterly to annual	27	42	46	41	156
Annual to quarterly	31	65	50	56	202
Total (B)	58	107	96	97	358
Variation in % (B/A)	-61	-31	-41	-46	-45

Key: When the 2013 sample was designed, the "waiting room" would have reduced from 94 to 65 the number of firms shifted from the annual sample to the quarterly one.

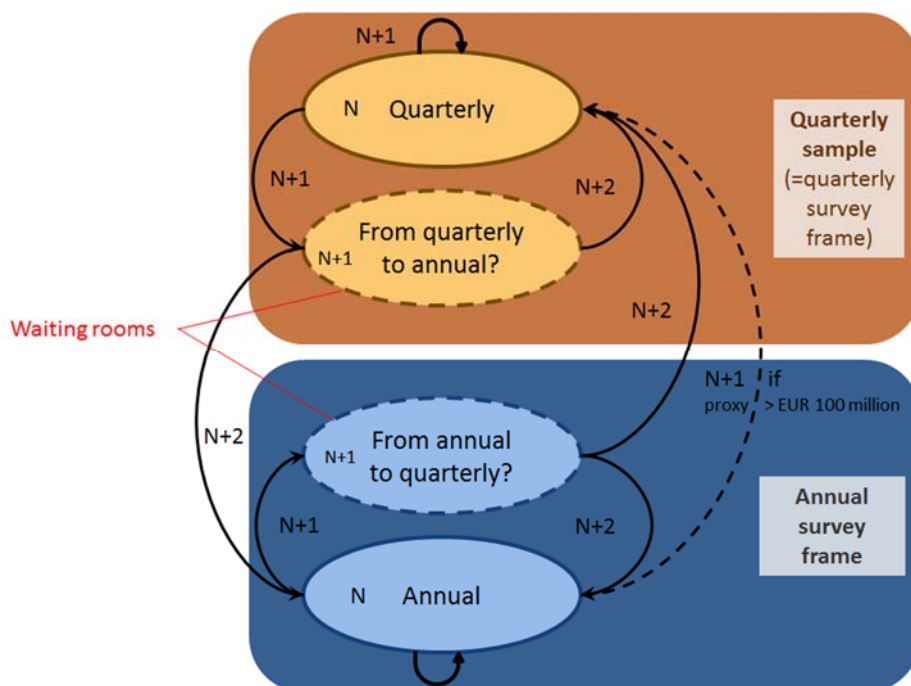
Source: Banque de France

2.3.2 "Waiting rooms" for EFI

The solution engineered for ECO would not have been relevant for EFI because the variations in the values are too large. More precisely, given the proportion of firms displaying a null proxy one year and breaking twice the threshold the following year, too many firms would have been shifted to the quarterly sample in the long run. In addition, a simulation showed that, due to the low concentration of firms in the neighbourhood of the EFI threshold, the ECO method would not have significantly reduced the number of shifts from one sample to the other.

As regards EFI, "waiting rooms" were created: one "observation" year was introduced in order to wait for confirmation of the need to shift the firm to the other frequency. The exception is firms with a reported value higher than EUR 100 million; the shift to the quarterly sample then occurs immediately. (Chart 8)

Chart 8: EFI sampling scheme stabilisation system: two “waiting rooms”



Source: Banque de France

The impact of this method is that only two firms out of three that would have been put in the “waiting room” in 2014 would have changed frequency in 2015. The new method would have postponed by one year the “upgrading” of 24 firms from annual to quarterly frequency and the “downgrading” of 31 firms from quarterly to annual frequency.

Indeed, the simulated general impact of the “waiting rooms” is a reduction in the number of changes. The ex-post simulation points to a 20% average reduction in the number of frequency changes. (Table 5)

Annual frequency shifts for EFI

Number of firms which change frequency between two successive years

Table 5

Nature of the shift	2011 →2012	2011 →2013	2013 →2014	2014 →2015	Total
Actual methodology until 2016					
Quarterly to annual	85	57	36	50	178
Annual to quarterly	100	84	92	79	276
Total (A)	185	141	128	129	454
Ex-post simulation of the “waiting-room”					
Quarterly to annual	-	69	43	31	143
Annual to quarterly	69	74	71	77	222
Total (B)	69	143	114	108	365
Variation in % (B/A)	-63	1	-11	-16	-20

Source: Banque de France

Key: When the 2015 sample was designed, the “waiting room” would have reduced from 50 to 31 the number of firms shifted from the quarterly sample to the annual one.



Irving Fisher Committee on
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BANK FOR INTERNATIONAL SETTLEMENTS

Ninth IFC Conference on "Are post-crisis statistical initiatives completed?"

Basel, 30-31 August 2018

Going further than ITRS to draw up the French BOP: three tailor-made surveys¹

Cécile Golfier,
Bank of France

¹ This presentation was prepared for the meeting. The views expressed are those of the authors and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.

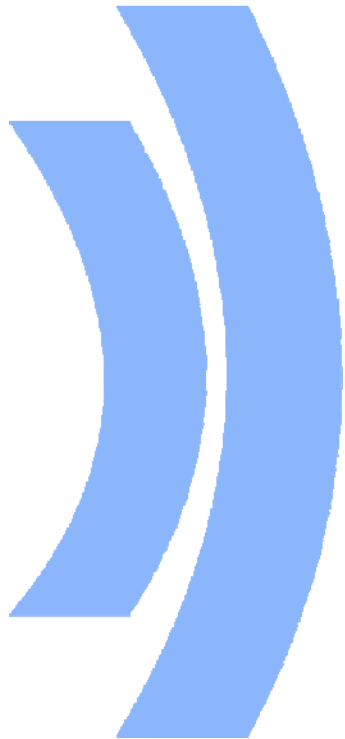
GOING FURTHER THAN ITRS TO DRAW UP THE FRENCH BOP: THREE SURVEYS



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Are post-crisis statistical initiatives completed?

CÉCILE GOLFIER
FDI AND CROSS-BORDER TRADE IN SERVICES UNIT

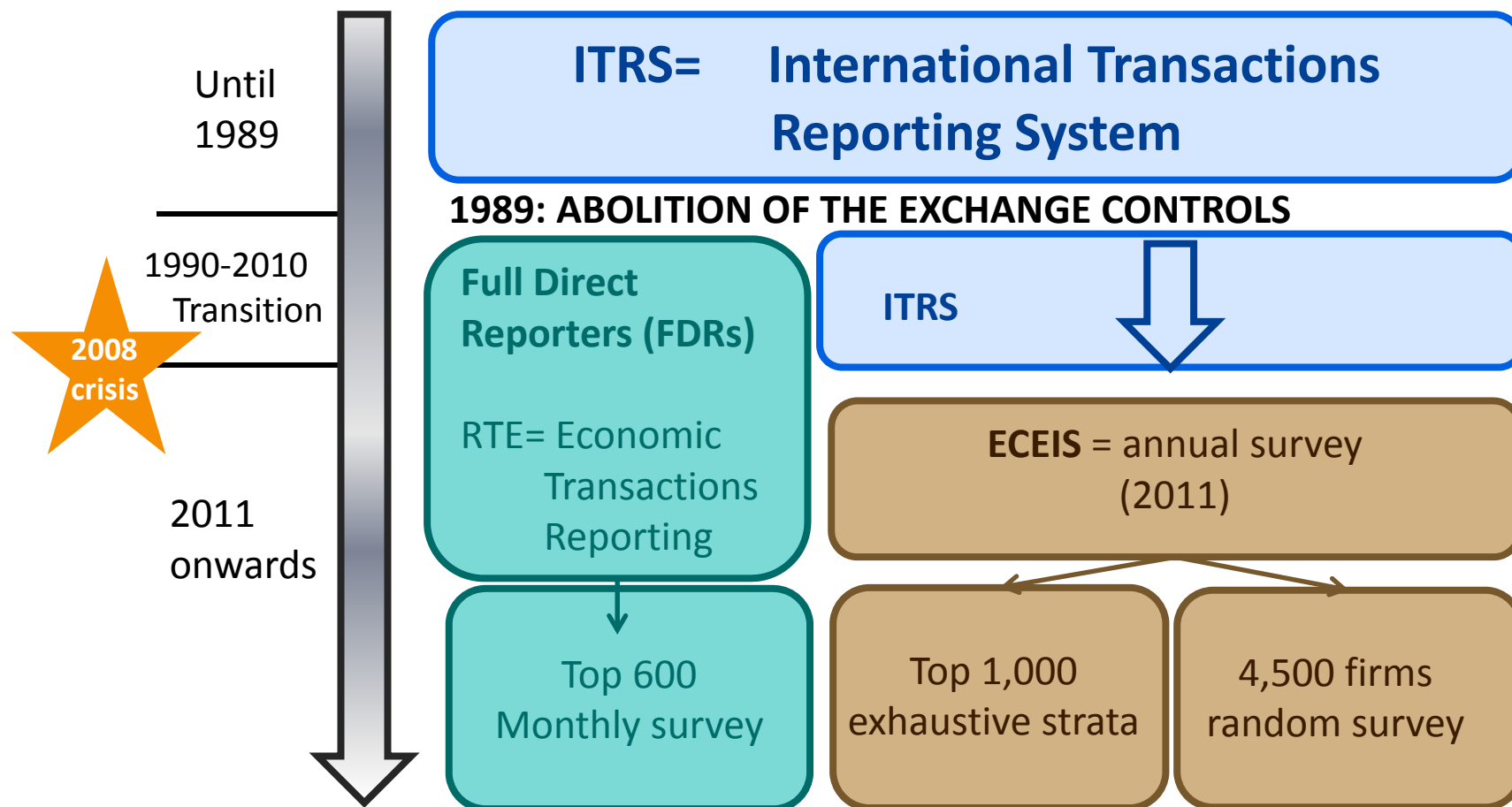
30 AUGUST 2018



1. The inception of a direct relationship with firms
2. Customised survey frames
3. Recent reengineering of the surveys used for the IIP

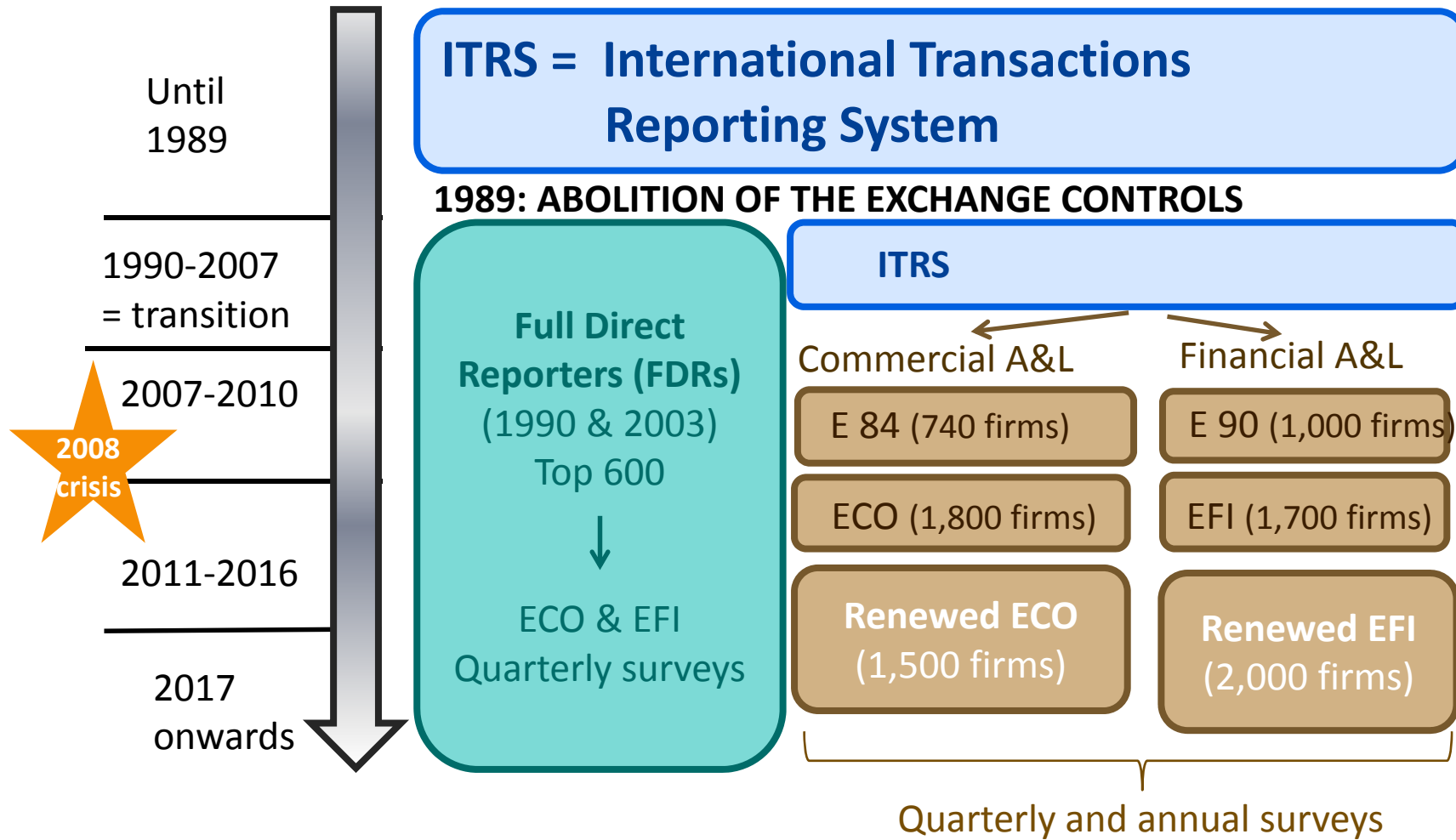


FRANCE HAS ADOPTED A DUAL SYSTEM TO COLLECT FIRMS' INTERNATIONAL TRADE IN SERVICES DATA



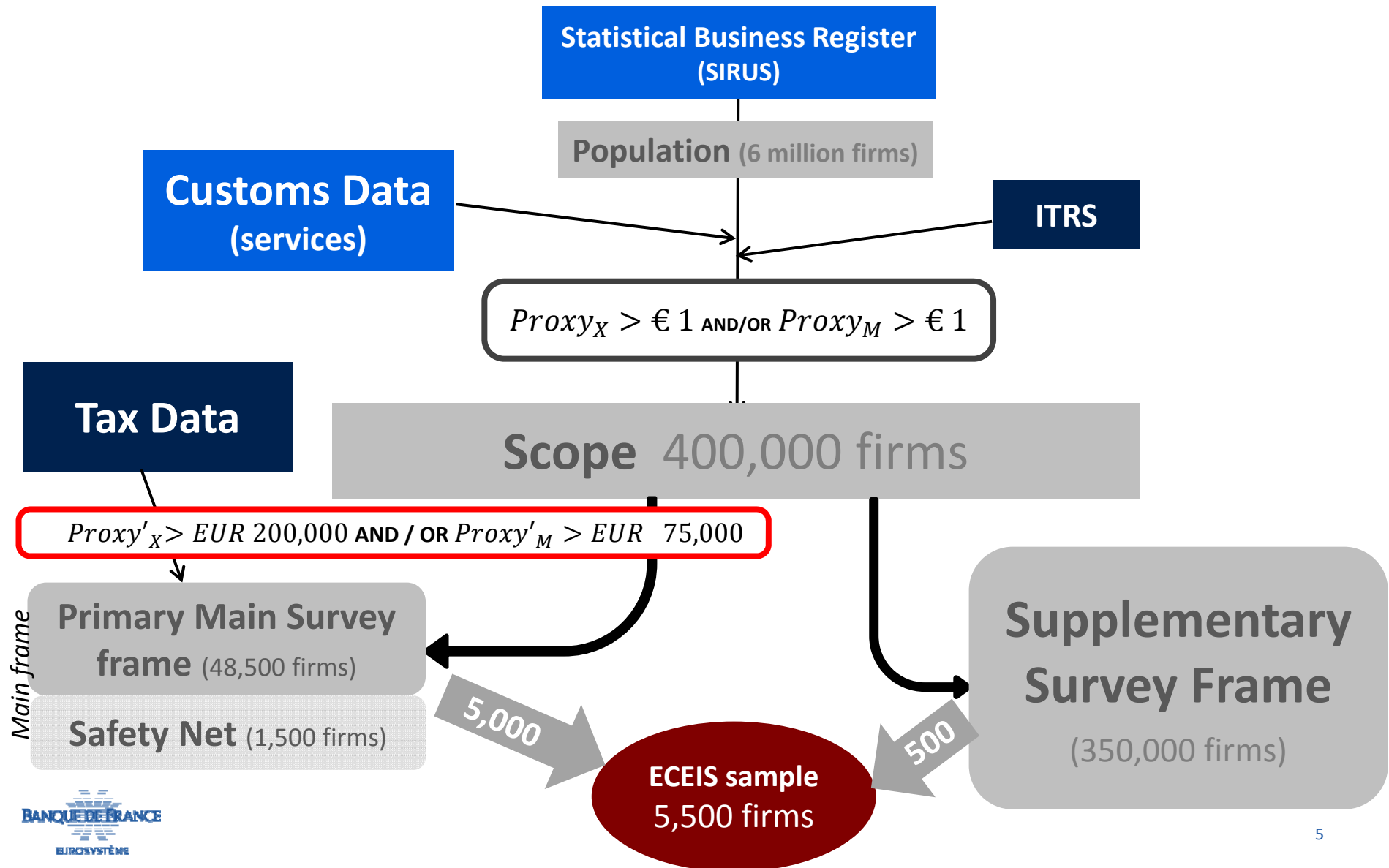


ECO AND EFI SURVEYS TO MEASURE FIRMS' INTERNATIONAL ASSETS AND LIABILITIES



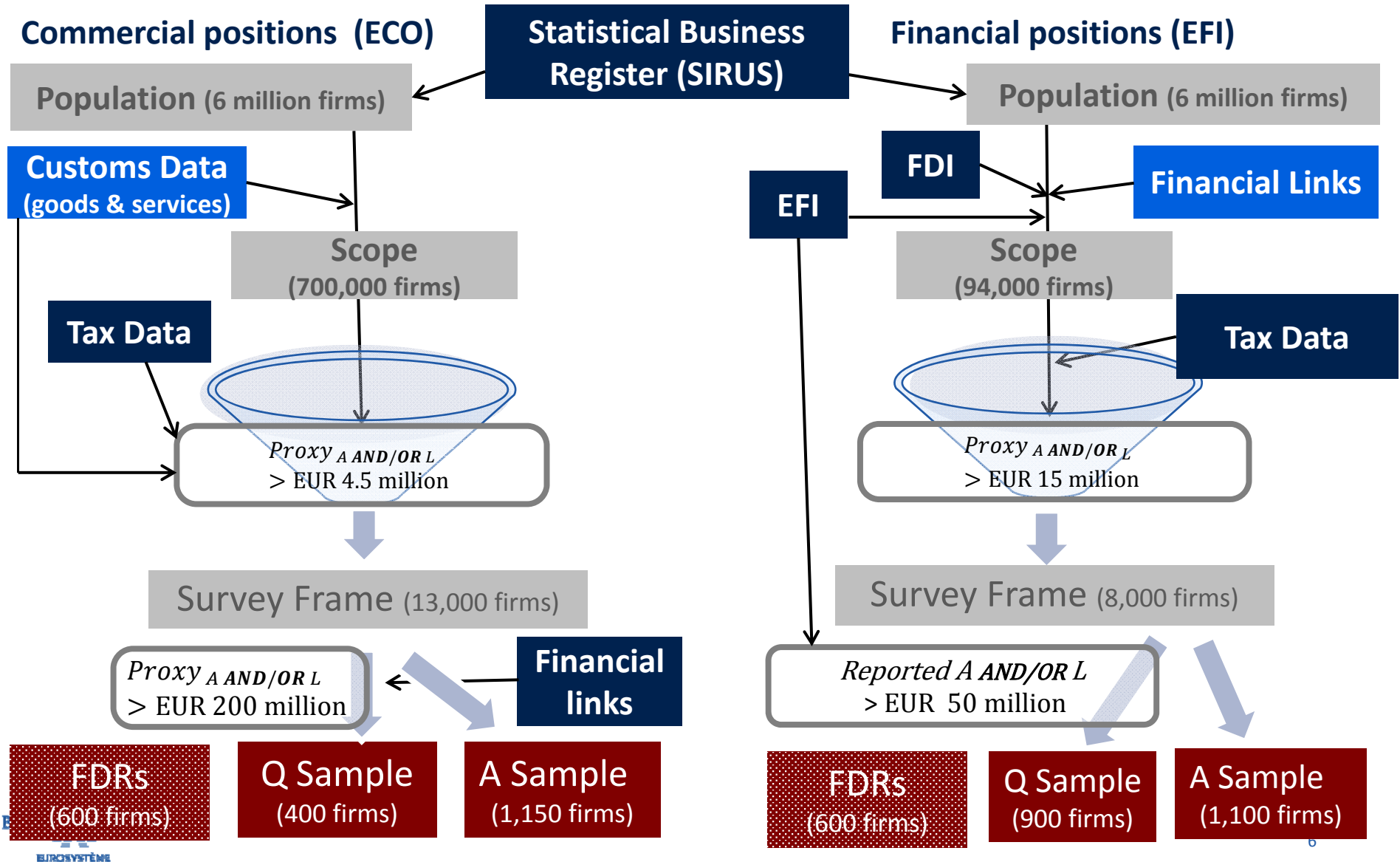


A MULTI-CRITERIA SELECTION FOR THE SERVICES SURVEY FRAME





TAILOR-MADE SURVEYS FOR INTERNATIONAL INVESTMENT



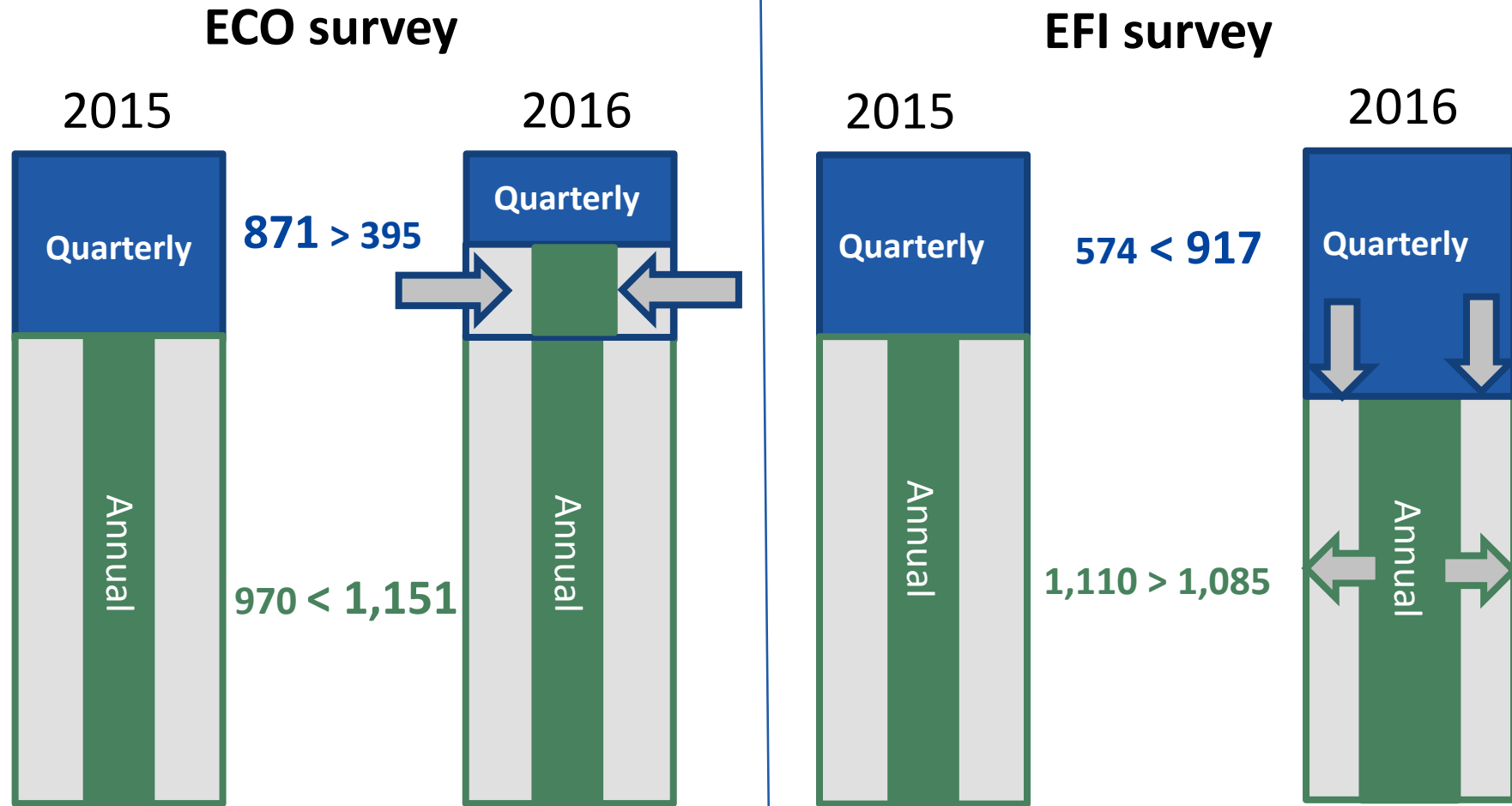


TWO REFINEMENTS IN THE ECO/EFI SCHEMES IN 2017

- Rebalancing the survey schemes to improve the FDI measure
 - enhancement of the overall accuracy (EFI + ECO): an improvement in EFI (financial assets and liabilities) that outweighs a slight deterioration in ECO (commercial assets and liabilities)
 - combined with a small decrease in the firms' reporting burden
- Stabilising the frequency (A/Q) within the samples of each survey
 - “no-man’s land” for ECO: shift to the other frequency sample only if the two-year averaged proxy deviates by more than 10% from the threshold
 - “waiting-rooms” for EFI: one “observation” year to wait for confirmation of the need to change the frequency of the firm
 - (exception: immediate shift towards the quarterly sample if the last reported value is higher than EUR 100 million)



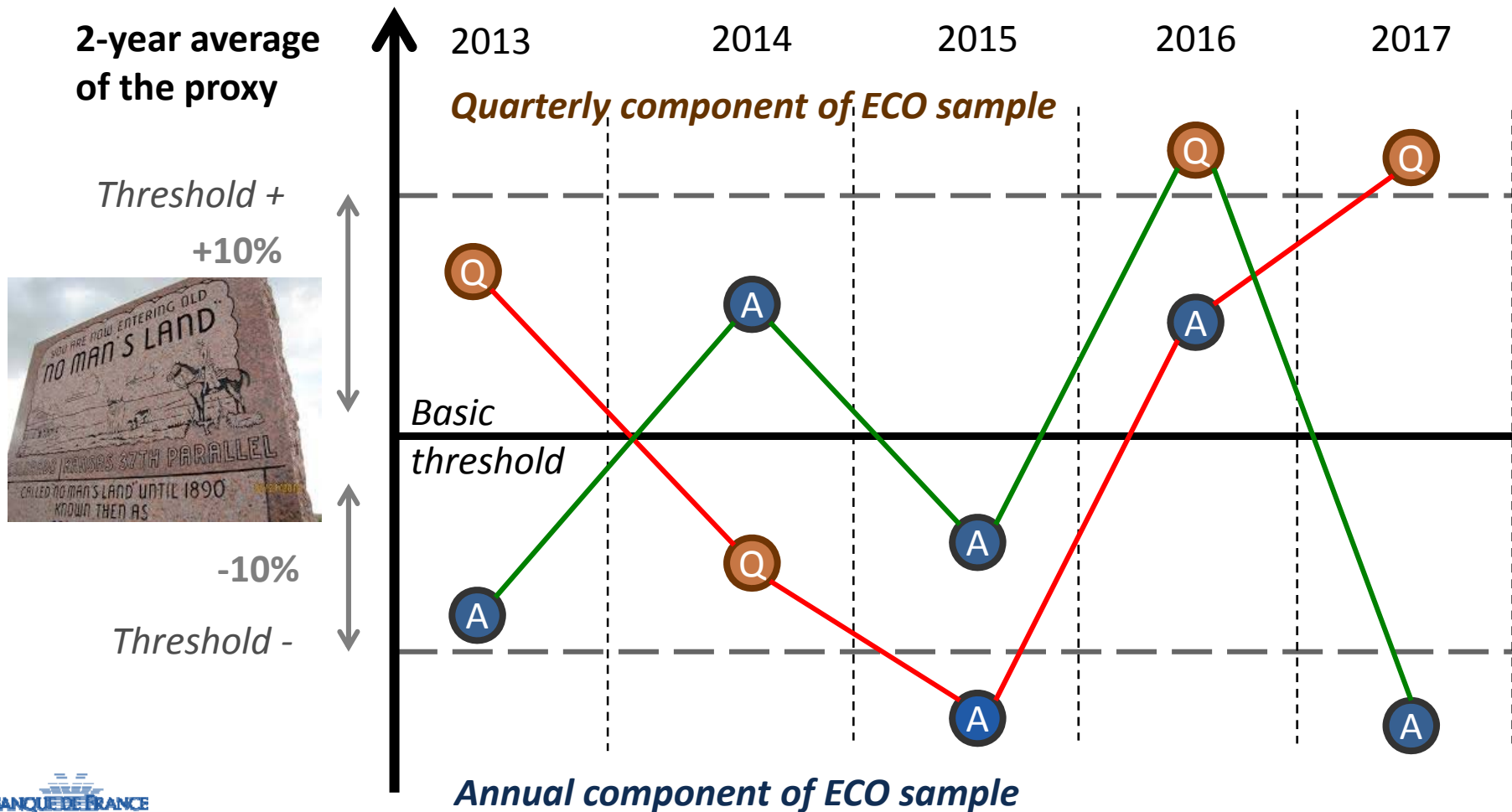
IMPROVING EFI PRECISION BY REBALANCING THE SAMPLES, WITH A SLIGHT DECREASE IN THE REPORTING BURDEN





A "NO-MAN'S LAND" TO STABILISE THE ECO SAMPLE

ECO: the "no-man's land"



» THANK YOU FOR YOUR ATTENTION

