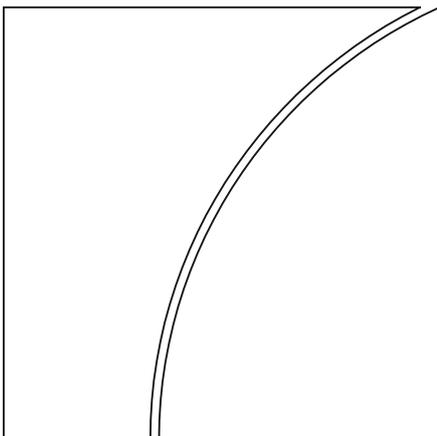


# Irving Fisher Committee on Central Bank Statistics

## IFC Working Papers No 12 Balance of Payments Statistics

Abstract of proceedings of a workshop organised in cooperation with the Bank of France held in Paris on 28 February – 1 March 2013, edited by Jacques Fournier

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Gathering 95 representatives from 46 countries on all continents, the Irving Fischer Committee Workshop on Balance of Payments hosted by the Banque de France in 28 February and 1 March 2013 provided a key opportunity to share views and experience on balance of payments statistics, through a mix of technical and more policy-oriented panels. The workshop took place at a time when external sector statistics are about to respond to enhanced requirements, stemming from the adoption of the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6) and from the G20 statistical agenda.

Major issues debated during the workshop can be broken down into four categories:

- (1) **How recent institutional and economic changes do impact external sector statistics:** how to assure the overall consistency between standard statistics and the more advanced sets of external sector statistics recently developed under the data gaps initiative (session 5a); countries' experiences to integrate the production of external sector statistics (session 5c);
- (2) **How to deal with specific items that prove difficult to compile,** either because no clear solution has yet been found for these lasting problems (session 5d - trade in services or session 6 – developments in the financial system) or because the methodology is changing with the BPM6 (session 1 - direct investment, session 3c - trade in goods for processing);
- (3) **Where we stand regarding the ever-improving technicalities in compilation,** such as the integrated approaches of external sector statistics (session 5b), recent data collection techniques (session 5c) and early estimates of balance of payments (session 3b);
- (4) **How to improve the reliability and relevance of balance of payments as a global statistical account,** addressing aspects such as asymmetries in mirror data (session 2), net errors and omissions (session 3a), and the potentially loose relationship between current account and competitiveness (session 4).

The workshop provided numerous examples of how structural, institutional and technical changes interact to influence the practices of statisticians. Financial innovation, the growing complexity of the international organization of firms and of international flows, and the increasing volume of cross-border transactions were clearly identified as key parameters that make it more difficult for statisticians to compile external sector data. It was acknowledged that **the BPM6 provides the conceptual framework and guidance to cope with most of these changes.**<sup>1</sup> Participants discussed case studies in various countries, illustrating how numbers were influenced by efforts to draw a faithful image of outsourced physical processes (in particular, methodology for merchanting and goods for processing). Examples were also provided to illustrate progress in measuring the cross-border activity of insurance companies and other non monetary financial institutions such as international clearing houses.

**Some common concerns and suggestions emerged from the sessions despite the diversity of issues.** Participants emphasized that **the accelerating pace of change in the international economy has very practical implications for compilers.** Experts have to **adjust their framework swiftly** not to lag behind. Their ongoing efforts are aiming not only at adapting to these changes but also at developing skills and techniques to be able to adjust promptly to future – not yet observable – patterns and users' requirements. Such efforts will improve the quality of external sector statistics and offer major benefits to users. More generally, **the design of a global approach to quality was regarded as a necessity,** as illustrated in the workshop via a wide range of countries experiences that would without much doubt need to be developed and generalised.

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<sup>1</sup>The complete draft *BPM6 Compilation Guide*, a companion document to the *BPM6*, has been posted by the IMF in July 2013.

**Two other challenging aspects have been highlighted through the various workshops.**

**First, the dismantling of exchange controls has a major impact on the compilation processes based on International Transaction Reporting Systems – ITRS** - (i.e. reporting by banks of their customers' cross-border transactions). ITRS are earmarked to lose progressively their former relevance as a single data source. Convincing incentives for banks to inform extensively and accurately, the ITRS can hardly be expected to be a full substitute. Thus, securing direct accurate and complete sources for information on business' international activity is becoming a key challenge for compilers, especially where the global value chain is getting longer and more complex.

**Second, the financial crisis led to a burst in the demand for statistics**, not least through the G20 data gaps initiative. Broadening the set of external sector statistics, and thus enlarging the scope of users, is welcome as it enhances the data collection. However, it raises **new consistency challenges** both for the internal coherence, that is, within the sets of external sector statistics (Balance of Payments and International Investment Position, Foreign Direct Investment, Foreign Affiliates Trade Statistics, International Trade In Services Statistics, International Banking Statistics, External Debt Statistics) and external coherence, namely with the national accounts. Participants commented on important feedbacks between the quest for consistency and the overall quality of external sector statistics.

In this respect, granular databases may facilitate the convergence between micro and macro figures and between different kinds of statistics. However, it cannot be regarded as a unique solution and the statisticians will still need to **combine a broad set of mirror data and complementary data**, either low-frequency, extensive surveys, or high frequency, ITRS-like data.

Eventually, panelists and participants were keen to underline that being a key macroeconomic dataset, BOP statistics **deserve an improved awareness from policy makers and from the general public**. Balance of payments problems are emblematic of competitiveness weaknesses and the external sector statistics should be regarded as a very useful warning signal of financial fragility. The euro area's experience is a case in point in this regard.

Participants showed a great interest to **share best practices in enhancing the education of BOP users**. In particular, the presentation of BOP statistics, including their semantics, could be adapted to their growing diversity. The IMF compiles a pilot external report, the European Commission and the European Central Bank set up scoreboards to measure macroeconomic imbalances or financial stability risks that includes indicators based on external sector data. Trade in value added as computed by the OECD and the WTO deeply changes the geographical origin of goods and services that is being used in BOP statistics. Users must be made aware of the usefulness but also of the difficulties and limitations that characterize external sector statistics: quality includes intelligence on quality, most peculiarly for BOP statistics that have partly to rely on surveys.

All in all, in order to cope with the challenges of broadening the set of external sector statistics, adjusting swiftly to the users' requirements and the evolving patterns of the international economy, while reinforcing the global quality and obtaining an increased awareness of the policy-makers and the general public, Balance of Payments' compilers have to increase the sharing of best practices, and all participants showed their great interest for **an active and enlarged network of BOP compilers**.

## **1 – Direct Investment Flows and Incomes**

*Chair: Charles Thomas, Federal Reserve*

*Panelists: Juan-Eduardo Chackiel, Central Bank of Chile*

*Joe McNeill, Central Bank of Ireland*

Foreign Investment statistics provide a prominent example on how the statistical framework is being adjusted in response to structural changes in the pattern of globalization. As a matter of fact, the globalization of companies entails not only the multiplication of subsidiaries or branches abroad – as reflected in the holding of shares – but also the multiplication of related financial flows that underlie management decisions such as investment, working capital financing, cash-pooling and optimization of market financing. In this respect, the ongoing improvements in the compilation of intercompany loans in foreign direct investment are essential: the methods recommended by the BPM5 relied on the Assets / Liabilities principle and the directional principle whereas those recommended by the BPM6 rely on the Assets / Liabilities principle and the extended directional principle - ExDP.

All three panelists agreed that implementation issues had to be tackled carefully. In this respect, the experience by Chile, a new OECD member, provides a fruitful illustration. Chile has recently adopted the direct investment methodology recommended by the OECD fourth benchmark definition of direct investment to satisfy the usual statistical review that precedes the integration of new member states. The presentation by Juan Eduardo Chackiel showed how to successfully achieve compliance with the benchmark definition. It requires a carefully planned process addressing the expanded definition of FDI to trade credits and bonds exchanged between affiliates, the strict application of the 10% of voting rights criteria, the specific recording of SPEs' positions and transactions, and finally, the implementation of two new rules, the Assets / Liabilities principle and the extended directional principle. The comparison of old and new FDI figures, at the aggregate level or at the bilateral level, enable enriched analysis, combining figures based on the Assets / Liabilities principle and those based on extended Directional principle.

As highlighted in the introductory presentation by Charles Thomas, pending issues remain. For instance, the geographical breakdown of Inward FDI statistics based on the residency of the ultimate controlling parent is not consistent with the geographical breakdown of Outward FDI statistics based on the first counterpart country. Other factors have to be taken into account. In this respect, the third presentation by Joe McNeill noted the large asymmetries between Ireland and the United States on bilateral FDI position and income. Via some examples he showed that these asymmetries could be related to the methods for calculating retained earnings, the position of the Irish Affiliates in the organization of Multinational Companies (MNCs), transfer pricing and payments for intellectual property assets.

The discussion after the presentations focused on the issue of asymmetries and ways to address them. Some participants stressed on the need to develop exchanges of individual data between compilers. Experience in the European FDI Network shows that data exchange can actually help to solve asymmetries, but several preconditions must be met first. There must be a willingness of both parties and the resources available to both sides, as any search of individual data is much more resource intensive than the global statistical treatment, and the methodologies used have to be sufficiently close. Beyond the more intensive use of the FDI Network, further initiatives ought to be contemplated, probably based on future progress in data sharing. Indeed, the use of mirror data and progress in the norms to identify companies with a unique identifier at the world level are likely to provide a very valuable tool to identify ultimate counterpart countries over the medium term.

## **2 - Asymmetries in mirror data: a problem to be solved or a piece of information?**

*Chair: Eduardo Valdivia-Velarde, IMF*

*Panelists: Liliana Bancheva, Bulgarian National Bank*

*Maria Teresa Garcia Cid, Bank of Spain*

*Hendy Sulistiyowaty, Bank Indonesia*

*Mario Reyna Cerecero, Bank of Mexico*

Bilateral flows in balance of payments statistics should be symmetrical. Nevertheless, in practice, asymmetries between countries appear in many items of the balance of payments, and may even have an impact at aggregated level. For instance, measured total exports tend to be higher than measured total imports in the world aggregates but also inside economic areas, such as the euro area. This is obviously a problem for compiling measures for imports and exports at an aggregate level. Nevertheless, this gap, which may not always be in the same direction, also sheds light on how difficult it is to collect data. It is indeed also a tool to improve/cross-check national data.

The presentations gave examples of these asymmetries, their causes, and possible solutions and ways forward. Hendy Sulistiyowaty addressed the asymmetries in trade data, notably between Indonesia and its largest trading partner (China), and exposed how bilateral comparison and reconciliation of data from two countries may be useful to identify the causes of asymmetries in trade and may help to improve data quality. Multiple potential causes were identified for asymmetries: indirect trade (with a third party-country acting as a trading partner of Indonesia and China—International merchandise Trade Statistics (IMTS) recommends that imports should be stated to the country of origin and exports to the country of last known destination), coverage (some specific goods may not be subject to customs declarations), unrecorded transactions (under threshold or illegal), valuation (CIF/FOB), merchanting (margin value), time lag and declaration errors. Mario Reyna Cerecero presented the asymmetries in FDI data, based on the example of Mexico. As in trade data, there are multiple sources for asymmetries in FDI: partner country allocation (immediate vs. ultimate or final counterparty), firm information availability, different accounting methods, valuation methods (book value vs. market value), coverage (information is easier to get for inward FDI), census versus samples, determination of direct investment relationships (fellow enterprises). The presentation by Maria Teresa Garcia Cid addressed the different types of data collection models (estimates, sample surveys, indirect reporting by financial institutions, census surveys), which all have advantages and drawbacks. Depending on the level of detail in input data, asymmetries may be seen more as a problem to be solved (when detailed granular data are available), or, in most cases, as a useful piece of information when detailed data cannot be obtained and reconciliation has a low probability of success. Finally, Liliana Bancheva also addressed asymmetries in FDI, sharing Mario Reyna Cerecero's view that they may be caused by a number of methodological differences between countries. In order to reduce asymmetries and increase the internal consistency of the EU and euro area balance of payments, European institutions (the ESCB and Eurostat) launched in 2009 the "FDI network", a secure tool for FDI compilers to exchange information (micro data) on FDI transactions and (since 2012) positions, while preserving the confidentiality of the data. Although it does not allow the reconciliation of all transactions and positions, bilateral exchange of micro data between statisticians has proved a good technique to reduce asymmetries.

The panel underscored that, generally speaking, comparison with major partners and reconciliation exercises carried out by international organisations are useful and discrepancies revealed by mirror data may provide an opportunity to improve the statistics by identifying new operations or new sources of data. The panel also emphasized that different causes are generally involved in each case, and that country specific circumstances should not be underestimated: methodologies may differ and it may therefore be difficult in case of asymmetries to assess which data are reported with better quality. Sharing detailed data amongst reporting countries may help to minimize the asymmetries. Countries need to take the lead in resolving asymmetries. Nevertheless, international organizations may also have a role to play to increase the efficiency in the use of this information, beyond highlighting asymmetries and organizing the exchange of information, by addressing the need for enhancing

methodological harmonization between countries, revising data collection models, and fostering common solutions.

### **3a – Parallel session Net errors and omissions: respective role of primary data and allocation policy**

*Chair: Remigio Echeverria, ECB*

*Panelists: Harri Kuussaari, Bank of Finland*

*Jani Matilainen, ECB*

*Valeria Pellegrini, Bank of Italy*

Experience in many countries that have had to cope with an increasing cumulative level of errors and omissions suggest that these are generally stemming from the financial account. A classical representation is to put together a time-series of the net flows in the financial account and a time-series of the “errors and omissions”. In most cases, outliers in one time-series will be symmetric to the change in errors and omissions. This is likely to be the case particularly in an environment where the size of balance sheets is expanding quickly.

The presentation by Harri Kuussaari focused on the case study of Finland and suggested that a diagnosis on the sources of errors and omissions should encompass the following aspects. First, identifying potential missing outflows or inflows stemming from changing patterns of market infrastructure on the flows in securities and large value payments; this analysis should include a review of the behavior of institutional investors, especially regarding their relationship with the custodians; and a careful assessment of foreign investors’ behavior regarding the major issuances of securities – esp., government securities. Second, assessing to what extent the non financial sector – be it households or small and medium sized companies – could be the originator of numerous, low unitary amount flows, that would result in significant cumulated unmeasured flows. In this respect, the presentation by Valeria Pellegrini illustrated how, for instance, a change in the taxation environment might trigger this kind of non-captured flows. Third, assessing to what extent reporting by large international companies might need to be completed or adjusted to better capture real flows of the current account, or, intra-group flows related to Direct Investment.

The presentation by Jani Matilainen introduced the idea of the systematic process to deal with excessive errors and omissions. In a first step, the combination of three parameters (process changes, for instance resulting from methodological improvements: improved input data, work on asymmetries) concur to improve the unadjusted compilation of the BOP and the resulting errors and omissions. In a second step, referring to meta-data, adjustment to the data may be envisaged with reference to three guidelines: obtaining a minimization of errors and omissions, keeping a minimal impact on the profile on time series, reinforcing the value of data for policy making. This process might require an expert assessment for non-documented outliers, under exceptional circumstances only. In order to provide a benchmark for a continuous monitoring, non-adjusted series should be computed and stored internally. From the experience in Italy, Valeria Pelligrini suggested some ways forward: pursuing the exchange of information on practices in the area of analysis and adjustment of errors and omissions, listing all the useful international sources and reflecting on how they should be enriched to better address key errors and omissions issues. As pointed out in the presentation by Jani Matilainen, this is all the more relevant for flows and stocks in loans and deposits held by non MFIs vis-à-vis counterparties abroad.

In this session chaired by Remiggio Echeverria, all panelists emphasized that an improved knowledge of the impact on Balance of Payments statistics of financial operations such as repos, short selling, intra-group transactions deserved careful analysis and probably more discussion with the industry. As far as the lack of data related to households is concerned, solutions consisting in better using existing data – as benchmark for estimates – are likely to deliver interesting results.

### **3b – Early estimates for Balance of Payments: feasibility/robustness**

*Chair: Katherine Hennings, Central Bank of Brazil*

*Panelists: Joao Cadete de Matos, Bank of Portugal (discussant)*

*Andrea Carboni, Bank of Italy*

*Thiago Said Vieira, Central Bank of Brazil*

*Ornicha Tattawasart, Bank of Thailand*

The session aimed at sharing knowledge and “best practices” about the interest and limitations of the production of early estimates for balance of payments statistics, with the objective of meeting users’ needs for more timely information. The recent international financial crisis has shown that the sooner sufficiently robust data are available; the quickest solutions would be build.

In his presentation of the Brazilian experience, Thiago Said Vieira showed the relevance of early estimates for BOP data to help prevent, detect and react to crises in their early stages. Banco Central do Brasil currently publishes a monthly BOP with a timeliness of 3 or 4 weeks after the reference period. Its main source is an on line ITRS and based on the FX settlement system (reminiscent from a former FX control system – the exchange registration structure was kept mainly for statistical purposes), supplemented by other lower frequency sources or surveys. The very broad coverage of this ITRS, the high volume, detail and frequency of the data and the organization of the IT system (data warehouse) allow producing daily BOP estimates with a very good approximation of the monthly published data. Early estimates were used to support the actions in response to the 2008/2009 crisis. The online ITRS system and the FX settlement system are flexible enough to support adjustments to attend the BPM6 requirements, what is already being done.

The presentation by Andrea Carboni addressed a different use of early estimates, as part of the data production process: when BOP compilation relies on a variety of sources with different frequencies and timeliness, publishing high frequency (monthly) data may require estimating data with lower frequency sources or late availability. Different approaches and models can be used depending on the constraints on the data and on the existence of benchmark data.

Ornicha Tattawasart presented the current evolution of the BOP compilation in Thailand: the changeover to BPM6 is accompanied by a change of data sources (rely less on ITRS and more on surveys, administrative data and data models). The compilation process allows the production of preliminary data for internal use with a timeliness of 20 days after the end of a period; the regular monthly data dissemination is at T+2 month. Bank of Thailand also conducts BOP forecasts for analytical purposes (used only internally for the Monetary Policy Committee (MPC) meeting), where data are projected for 8 quarters ahead. These forecasts are done on a monthly basis, using different variables (GDP – nominal and real, major trading partners’ GDP, CPI, hedging ratios), with each BOP item having its own determining factors based on the assumptions of the economic conditions expected. There are also medium term forecasts on an annual basis with BOP projection of 5 years in advance.

In his conclusion, Joao Cadete de Matos emphasized again on the growing importance of BOP and IIP statistics in the process of economic policy formulation (70 countries currently disseminate BOP statistics in the SDDS framework: 15 disseminate monthly data, 55 quarterly). Developing on the three presentations, it is possible to identify several roles of estimates: (a) fill in gaps of information during the production cycle, (b) produce earlier BOP data when the production cycle has a more extended periodicity; (c) forecasts; and also several use cases (missing details, non-observable variables, recent periods for less frequent data collection). Some difficulties were also mentioned, regarding the identification of the reference population, of the models (to be defined on a country and case by case basis; no single solution is possible), of the benchmarks; the robustness of the estimates needs to be carefully addressed, and the models should as well be kept fit and updated.

### **3c – Compilation of statistics on goods for processing, as outlined in BPM6, and its impact on GDP**

*Chair: Joon Jung, Bank of Korea*

*Panelists: Roger De Boeck, National Bank of Belgium*

*Ai Loon Low, Bank Negara Malaysia*

*Chung Seak Roh, Bank of Korea*

The alignment of the methodology for the statistics on goods for processing between balance of payments and national accounts is one of the major changes enabling to warrant the consistency between SNA 2008 and BPM6. It represents also a qualitative leap to take into account one of the key driver of internationalization of the value chain. Both presentations by Ai Loon Low (Bank Negara Malaysia) and Chung Seak Row (Central Bank of Korea) described how processing services – that is, the manufacturing services on physical inputs that change the condition of goods – would be measured under BPM6, in a context where the change of ownership is not any more regarded as consubstantial to processing activities. Therefore, while the activity of processing entailed, as a rule, a change of ownership – reflected in the compilation of gross import – export flows of trade in goods – this is not the case anymore under BPM6.

The case studies of Malaysia and Korea demonstrate that the change in methodology is not neutral, to the extent that it provides a strong incentive to improve the measure of processing fees, thus triggering re-estimation in the current account and the GDP. Chung Seak Row listed the following factors behind the re-estimation: review of respondents and rebalancing of previously misrepresented industries, improvement of data captured through the ITRS, ability to better identify transactions outside custom data (especially when a third country acts as the processing country), computation of proper deflator on services, need to update and refine input-output tables. Factors may vary according to the situation of the countries in the value chain; however, the diversity of processing patterns – from simple outward processing to offshore trade activities involving outward processing – call for an improvement of the knowledge of the business models and trade patterns. This can be achieved through a dialogue with the customs agencies and, more importantly, with the industry directly. As suggested by Ai Loon Low, in order to maintain a good understanding of the international trade patterns, Balance of Payments compilers should continue to get some information on gross flows in goods, along with improved net flow information. Finally, the presentations pointed out that, whatever improvements in the data collection, some measures would have to be based on estimates – with estimators computed from structural surveys. This could be the case, for instance, to distinguish income related to the processing and income related to merchanting. Moreover, an appropriate approach has to be designed in order to update regularly the sample for the various surveys. In this respect, Chung Seak Row showed that a statistical system combining surveys, use of custom administrative data and use of ITRS data was key to ensure the quality of sample, the robustness of estimates and the adequate coverage of collected information.

All in all, regular direct talks with non financial companies, strong relationship with credit institutions reporting ITRS type data, cooperative approach with the customs administration seem to constitute the prerequisite for coping over the medium term with the challenges arising from the fragmentation of the value chain, the rebalancing of international trades from goods to services, the need to streamline statistics from misleading gross flows while maintaining a comprehensive understanding of evolving trade flows.

#### **4 – Balance of payments as an indicator of imbalances or competitiveness: robustness**

*Chair: Rimantas Vaicenavicius, Bank of Lithuania*

*Panelists: Eugeniusz Gatnar, Bank of Poland*

*Guillaume Gaulier, Banque de France*

*Anita Woelfl, OECD*

The importance of imbalances and the slow pace in their reduction are two key features of the modern world economy. They represent a major challenge for policy makers. In this respect a clear understanding of the relationship between current account imbalances and competitiveness is key. To begin with, the presentations by Guillaume Gaulier, Eugeniusz Gatnar and Anita Woelfl introduced considerations on the information content of Unit Labor Costs (ULC). All three panelists underlined the fact that ULC provide a meaningful starting point for competitiveness analysis. However, measures and changes in the ULC need to be very carefully interpreted.

As far as measurement is concerned, Anita Woelfl stressed that although low ULC are a competitiveness driver, not only ULC in the manufacturing sector need to be monitored but also those in the services sector. Meanwhile, ULC for market services are very difficult to assess. In addition, the existence of markets that are price inelastic and non-price competitiveness has to be taken on board. Basing on the case study of Poland, Eugeniusz Gatnar showed that the reasons behind decreasing ULC are numerous; for instance the labour costs may rise but the productivity increase even faster. When this goes along with a high rate of investment, partly funded by foreign direct investment, there may be a coincidence between decreasing unit labour costs, increasing export market shares and a current account deficit, which has been the case in Poland. All in all the causality between ULC and the current account is far from being established.

In this respect the presentation by Guillaume Gaulier and Vincent Vicard suggests another case where ULC might not be a good indicator for current account. Indeed, ULC may increase and a current account deficit occurs following a shock causing an imbalance between savings and investment. This is likely to be the case in a monetary union when the long term interest rates are not differentiated according to the specific prospects in each economy. A subsequent reversal of capital flows would trigger a rebalancing process of the current account, even though ULC remain more or less stable.

The presentation by Anita Woelfl stressed that, beyond the challenge of measuring and interpreting adequately ULC in relation with changes in the current account, the analysis of competitiveness should also take into account the “double counting” in trade flows. Indeed, the cross-country’ fragmentation of industrial processes multiply gross flows of trades in goods, while the value added related to each flow might differ. The OECD TIVA Project aims at addressing this issue. Preliminary results suggest that the role of services in gross trade statistics is underestimated, and the measure of trade in value added enable to better estimate a country actual competitive position. Indeed, the measure of trade in value added focuses the analysis on the deficit or surplus vis-à-vis the ultimate partner country, by neutralizing the gross flows vis-à-vis intermediate partner countries. It redesigns the map of bilateral deficits and provides highly informative data for policy-making. However, this work needs to be developed further, with more data and more estimation of the robustness of input-output tables that are key to establish the chains of value added.

## **5a – Balance of payments data and new initiatives in statistics – data gaps/banking statistics, statistics on trade in services**

*Chair: François Mouriaux, Banque de France*

*Panelists: Giovanni Giuseppe Ortolani, Bank of Italy*

*Hidetoshi Takeda, Bank of Japan*

*Stephen Curtis, Office for National Statistics, United Kingdom*

Balance of payments data constitute the core component of external sector statistics. Meanwhile, additional sets of data appear in response to the developments of international trade and finance: Foreign Direct Investment data, International Investment Position (IIP) data, Foreign Affiliates Trade Statistics (FATS), Coordinated Investment Portfolio Survey (CPIS), International banking statistics, Services by Mode of Supply.

The panelists underlined that the growing external imbalances in various parts of the world entail strong policy implications and call for an appropriate statistical framework. Meanwhile, many phenomena are more difficult to measure as residence boundaries are blurred and production chains more fragmented across countries. For instance, as highlighted by Stephen Curtis in his presentation, it is not always clear where purchased electronic services come from in international trade. Also, problems arise when calculating the volumes of services traded, particularly in insurance and banking. With businesses becoming increasingly global and technology allowing instantaneous cross-border work this problem is only going to increase.

This has stimulated initiatives for a more integrated view on domestic and cross-border economic activities. However, this expectation for a more integrated view needs to be accommodated with the existence of a range of “satellite” external sector statistics. The presentation by Giuseppe Ortolani underlined that these “satellite” accounts are not part of a unique conceptual framework, as they have been developed to provide a flexible and adjusted response to the users’ requirements. All in all, the optimal development and functioning of the external sector statistics require governance ensuring a smooth cooperation and coordination between the international and national agencies involved. It also suggests that adequate mechanisms to “regulate” the demand for new data be implemented.

As a matter of fact, the different mandates or missions of users (surveillance, analysis of globalization, policy-making in the areas of taxation, trade negotiation, liberalization, infrastructural development, etc.) influence the topics of interest and lead to an exploding demand. Basing on the widely shared observation that restrictions on the compilers’ side are high (budget constraints, need to limit the reporting burden), Hidetoshi Takeda suggested that “demand control mechanisms” could be developed in a more systematic and organized manner. Demand control mechanisms are relevant for the “demand side” as well as the “supply side”. On the demand side, prioritization, integration and “one-in, one-out” (each introduction of a statistic accompanied by the discontinuation of another statistic) are among the solutions that have to be discussed. On the supply side, the introduction of more micro-data collection system provides an efficient mean of coping with a wide range of requests. Taking into account the issue of the reporting burden, statisticians should “make existing data sources sweat” and use administrative data, where possible.

As a conclusion, in order to address the increasing demand for more granular data, the shift from a concept of balance of payments statistics to a concept of external sector statistics has to be organized proactively, basing on the existing “multi-source – multi-purpose” framework. This would enable the establishment of the right balance between the requirement for consistency in the concepts, the need to capitalize on existing investment and practices, and the overarching requirement of keeping enough flexibility to adjust to users’ requirements and reflect the evolving economic patterns.

## **5b – An integrated approach of external sector statistics: country experiences**

*Chair: Toh Hock Chai, Bank Negara Malaysia*

*Panelists: Eric Boulay, Statistics Canada*

*Carla Marques, Bank of Portugal*

*Raja Aiysha Safia Raja Zainal Raffik Najmuddin, Bank Negara Malaysia*

*Lydia Troshina, Central bank of Russian Federation*

External sector statistics are reflected in various data sets being compiled: Balance of Payments (BOP), International Investment Position (IIP), External Debt Statistics (EDS), Foreign Direct Investment (FDI), International Banking Statistics (IBS) and International Trade on Service Statistics (ITSS). In addition, other statistical accounts (such as National Accounts, Monetary and Financial Statistics and Government Finance Statistics) include the external sector. The panelists illustrated how the issue of consistency was addressed, basing mainly on each country specific institutional framework.

Eric Boulay pointed out that integration was not an objective per se but was a powerful mean to improve all aspects of the statistical framework. A high degree of consistency between the sectoral national accounts and the international accounts is a quality insurance tool by definition. In general, integration forces coherence of estimates while integrated production schedules improve timeliness. Consequently, integration boosts the analytical potential of the data.

The panelists pointed out that obstacles to improve consistency must not be underestimated. These include for instance, legal constraints to streamline the data collection framework and share raw data between agencies, teams with different trainings and backgrounds, and diversity and volatility of the expectations from users. However, as highlighted in the presentation by Lydia Troshina, the drivers of consistency are numerous and powerful: international organizations promote converging methodologies and compilation guides, SDDS facilitates unification of dissemination rules, SDMX DSD helps in standardizing the data provision.

Beyond that, the integration of the information system is a key factor. In this respect, Carla Marques stressed the importance of setting up common reference tables, shared infrastructures, and flexible data warehouses that provide the statisticians with an integrated perspective from their own compilation. Raja Aisha Safia showed that, beyond the unification of methodologies and the integration of the information system, the search for an integrated approach may include the setting up of joint surveys among the agencies involved in the compilation of external sector statistics. This is namely the case in Malaysia for the compilation of the IIP and it helped in alleviating the reporting burden and in improving quality and timeliness.

Finally, all presentations suggested that the building up of an integrated approach did not mean a limitation in the diversity of data sources. In Canada, Malaysia, Portugal and Russia, the compilation of external sector statistics is based on monthly, quarterly and yearly programs, and processes have been set up to combine administrative sources with surveys and institutional reports. The diversity of sources provides an essential basis for confrontation and reconciliation which are the operation cornerstone of any integrated set of accounts. This process appears all the more efficient when exchange of raw data and cooperation between national agencies is intense and when work on mirror data, provided via international agencies or bilateral arrangements, is systematic.

## **5c – Data collection techniques: trends and issues**

*Chair: Christian Dembiermont, BIS*

*Panelists: Katherine Hennings, Central Bank of Brazil*

*Simon Lohner, Deutsche Bundesbank*

Chaired by Christian Dembiermont (BIS), the purpose of this session was to share with the panelists experiences in data collection techniques used to compile Balance of Payments and international investment position statistics. C. Dembiermont recalls the diversity of data collection techniques. Indeed, the context of increasing complexity and internationalization of transactions, necessity to “mix and balance” and the different constraints and objectives (in terms of costs, data quality and reporting burden) make data collection really challenging.

Katherine Hennings (Central bank of Brazil) illustrated the diversity of data sources and collection system of Brazil to compile flows and stocks: a large range of sources and techniques are used such as International Transactions Reporting System –ITRS- which remains the main data source to compile flows; administrative sources collected via the Electronic Registration System (RDE) of foreign capital (mandatory registration for enterprises that receive payments from non-residents in capital form and mandatory system for enterprises that issue external debt (ROF), two specific surveys to compile the IIP (including quinquennially, annually and quarterly data collections) and direct investment statistics (at market value, book value, ultimate investment country and immediate investing country, reinvested earnings of DI abroad and intercompany loans). She underlined that close attention is given for respondents that could have some difficulties to fill in the questionnaire (technical and methodological issues notably). She described the computation and validation data techniques which are notably based on automatic consistency rules to detect potential errors, although permanent contacts with large respondents are conducted.

The presentation “Current changes in the German BOP reporting system” by Simon Lohner (Deutsche Bundesbank) provided a clear illustration of the change in a collecting system, from a reporting via the banks to a direct reporting system. The implementation of the Single European Payment Area (SEPA) framework in 2008 simplified banks’ transfers to improve the efficiency of cross-border payments. Moreover, enterprises’ behaviour changed a lot during the 2000s (netting, cash pooling). Consequently, a large part of statistical information was not transmitted with SEPA framework and banks were not reporting on behalf of their customers any longer. In this context and in the perspective of BPM6 requirements, the Bundesbank decided a “big bang”, i.e. to abandon the reports via banks and to collect information directly from enterprises (via an electronically reporting mandatory system), the final legal framework being in place in July 2013. It is worthwhile to note that the Bundesbank, in addition to its legal empowerment to audit companies, implemented a long term strategy vis-à-vis reporting companies (roadmaps, communication) to identify in advance implementation issues and to overcome the concerns of companies regarding the reporting burden and the confidentiality.

## **5d – Compiling data on cross-border services**

*Chair: Huseyin Zafer, Central Bank of the Republic of Turkey*

*Panelists: Ahmet Adnan Eken, Central Bank of the Republic of Turkey*

*Martial Ranvier, Banque de France*

*Yeşim Şişik, Central Bank of the Republic of Turkey (discussant)*

In a first presentation entitled “From The International Transaction Reporting System To The New Complementary Survey On International Trade in Services”, M. Ranvier showed how data collection for the French Balance of Payments trade in services evolved from an ITRS system to a direct reporting system based on a generic business survey. After describing the main methodological features of the ECEIS survey, he exhibited the revision magnitude entailed in the international trade in services statistics as measured in the Balance of Payments. The presentation

also stressed upon methodological difficulties inherent with a survey approach. Further methodological improvements, which are under investigation, were discussed at the end of the presentation.

A.A. Eken then presented “International Trade In Services Statistics: Practice Of Turkey And The Way Forward”, in which he described the legal framework and the methodology – consistent with IMF BPM5 and UNSD MSITS- used for the elaboration of the trade in services statistics in the Turkish Balance of Payments. The major sources of data combine the use of an ITRS, direct reporting and administrative data. He also detailed the action plan for future data collection, involving less and less ITRS, more and more direct reporting or administrative data.

As a discussant, Y. Şişik noticed the wide variety of data sources, and the very complex exercise of producing trade in services statistics, illustrated by the two presentations. She also recalled how important is the availability of alternative data sources such as administrative records, and how using mirror data and sharing experience could be valuable means of reducing data gaps. As a conclusion, she pointed that the adaptation to the new standards remains a slow process, and that there is still a long way to go in some areas, such as modes of supply.

## **6 – Balance of payments and recent developments in the financial system – shadow banking, complex operations, market infrastructures (clearing houses/CCPs...)**

*Chair: Paul Van den Bergh, BIS*

*Panelists: Masahiro Higo, Bank of Japan*

*Bruno Longet, Banque de France*

*Lydia Troshina, Central bank of Russian federation*

This session chaired by Paul Van den Bergh (BIS), was dedicated to the Balance of Payments and recent developments in the financial system (shadow banking, complex operations, market infrastructures). The chairman introduced the session by underlining the challenges the compilers have to face, resulting from ongoing structural financial changes (reconsideration of banking business model, deleveraging, globalization and “deglobalization” dialectics, shadow banking and new market infrastructures). These structural changes have a potential impact on BOP statistics on international trade with new types of cross-border services, on capital flows and on the International Investment Position. The treatment of cross-border derivative transactions is one of the most challenging issues, addressed in more detail in the new BPM6. Nevertheless, practices differ significantly from country to country.

The main challenges for BOP statisticians are the following: integration of new data sources (nonbank financial corporations, nonfinancial corporations), valuation methods, holdings of securities and equities, additional breakdowns of cross-border transactions (by nationality, by branches/subsidiaries) or the use of new micro databases (such as security by security database and infrastructure markets), gross flows and positions. All in all, changes in the financial system raise specific compilation issues: does the BOP compilers need to extend the reporting of non-traditional sources? How does she obtain data from new important players? Does she have the legal mandate to collect relevant information?

Masahiro Higo (Bank of Japan) presented the Japanese experience in developing internal and external financial statistics in an appropriate way to implement the BPM6 (“How can we develop internal and external financial statistics in a well-balanced manner?”). His presentation focused notably on the importance of capturing the cross-border gross flows, segmented data of shadow banking sectors, and security-by-security data of debt securities accompanied with the risk-transfer. Reviewing the experience in the US and Europe financial crisis in the 2000s, it is fundamental to grasp not only the total of net capital flows among countries, but also the transfer of risks which is reflected in the gross flows of various financial assets among individual sectors. M. Higo underlined that it was crucial to achieve well-balanced development in both the cross border statistics such as balance of payments and

the domestic financial statistics including the balance sheet data by various non-banking financial sectors. This approach allows better understanding and getting data to monitor the increase or decrease of the gross flows among individual sectors. Japan is consequently elaborating a plan to improve the Flow of Funds Accounts (e.g. the structure of maturities and from-whom to-whom tables of securities) to grasp the debt securities and equities markets by using micro data obtained from clearing house, in addition to the revision of the non-banking financial sectors statistics. Three possible methods are explored and combined: (1) enhanced data collection and direct compilation from individual financial institutions (2) use of micro data collected by banks, trust banks, dealers complemented by information from settlement institutions (clearing house, CCPs.) and (3) use of information and data released by individual corporations and business associations.

Another interesting factor of complexity is the new role dedicated to the market infrastructures described by Bruno Longet (Banque de France) who focused his presentation on “the recourse to central counterparties (CCPs) for OTC derivatives markets and the impact on balance of payments statistics”. The 2007-2008 turmoil revealed the structural risks of OTC markets which were characterized by massive volumes based on significant leverage, transaction opacity, uncontrolled systemic positions and insufficient collateral. In September 2009, the G20 leader decided that standardized OTC derivatives had to be cleared through CCPs by the end of 2012. From a legal perspective, crucial point is the novation process, meaning that in a cleared market, participants have exposures vis-à-vis a CCP, instead of bilateral exposures to each other. For statisticians, collecting and compiling transactions on financial derivatives cleared market is a more complex process. Infrastructures markets, which have usually an OFI statute, may not have a fully stabilized business model yet which means that, from a statistical point of view, they remain to some extent an “unknown territory”. Moreover, the geographical relocation of the transactions is difficult to measure and operations can be netted. As a consequence, the BOP statistician must adapt and enhance its collection data system. There is a need to better identify operations and counterparties to ensure statistical consistency mainly on the following aspects: identification of the end-customers, improvement of the existing reporting or implementation of a new one, use of “mirror” data. Using data from trade repositories is another way to explore even if many issues or questions can be raised notably on the appropriate structure (centralized or regional data coverage, data standardization, entity identifier, etc).

Finally, a further challenge for the BOP statistician is the use of the valuation method, as stressed by Lydia Troshina (Bank of Russia) in the last presentation. To illustrate this issue, she compared statistics compiled at market value and statistics at notional value for transactions on financial derivatives positions vis-à-vis non-residents, showing that the “picture” is really different. That raised real concerns for statistics’ users and challenges for compilers, notably in terms of communication.

## **7 – Panel discussion: enhancing balance of payments quality, the way forward**

Beyond data compilation and compilation issues, should quality include legibility and awareness by the analysts and the general public?

- What way forward for reinforcing balance of payments quality in the broad sense?
- What possible recommendations from the IFC?

*Chair: Muhammad Ibrahim, IFC Chairman*

*Panelists: Joao Cadete de Matos, Bank of Portugal*

*Paul Van den Bergh, BIS*

*Jacques Fournier, Banque de France*

The discussion led by the IFC Chairman highlighted the necessity to raise the users' awareness on BOP main aggregates. Indeed, the panelists unanimously supported the view that they constitute key warning signals of local or regional macroeconomic imbalances. From the discussion, emerged, however, the idea of a trade-off between the legibility of BOP numbers for non experts and the precision/reliability of these statistics. The views of the panelists as from the audience were not

unanimous on how to strike the best balance between those two objectives that are both much valuable.

The panelists and the audience converged on the key lessons from the workshop that are summarized in the 'Paris Statement' that reads as follows:

**On 28 February and 1 March 2013 the Banque de France co-sponsored an international meeting in Paris to discuss the renewed importance of Balance of Payments (BOP) statistics in the context of the financial crisis and its resolution as well as the challenges ahead with the implementation of revised international statistical standards for BOP. The other sponsor was the Irving Fisher Committee on Central Bank Statistics (IFC), a forum of economists and statisticians which operates under the auspices of the Bank for International Settlements.**

**The meeting was introduced by Anne le Lorier, Deputy Governor of the Banque de France and Muhammad bin Ibrahim, Deputy Governor of Bank Negara Malaysia and Chairman of the IFC. It was attended by around 100 statisticians from over 46 different countries, representing all the regions of the world as well as international organisations. The programme of the meeting covered direct investment flows and incomes; asymmetries in mirror data and errors and omissions; BOP statistics as indicators of external imbalances and/or international competitiveness; BOP and recent developments in the financial system; and specific practical issues of BOP compilation and usages. A closing panel discussion focused on the way forward to enhance the quality of BOP data.**

The meeting yielded the following main insights:

1. Being a key macro-economic dataset, BOP statistics should deserve closer attention from policy makers and the general public.
2. The education of the users of BOP data should be enhanced. The presentation of BOP statistics, including their semantics, should be adapted to diverse user needs in order to ensure that data are understood correctly.
3. The official release of updated international standards for external sector statistics, in particular the sixth edition of the IMF's *Balance of Payments and International Investment Position Manual (BPM6)*, is a much welcomed development.
4. Growing errors and omissions undermine the quality and usability of BOP statistics. Further progress in improving the quality of these statistics could be achieved by enhancing data collections so as to keep them fit for capturing data from global chains of international trade as well as cross-border financial positions and transactions in complex and globalised financial markets.
5. There would be clear benefits from establishing a global network of BOP compilers. This could significantly contribute towards improving the quality of data underlying the official BOP statistics.

The IFC will continue to work with the central banking community and other international organisations in enhancing the quality and the relevance of the balance of payments statistics.