SUERF
The European Money and Finance Forum

SUERF Policy Brief
No 1006, October 2024

External statistics in a fragmented and uncertain world: addressing novel analytical needs*

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Keywords: External statistics, balance of payments, international investment position, globalisation, digitalisation, climate change, innovation, international cooperation

JEL codes: C80, C82, F10, F32, F60, O33, Q56

This policy brief provides an overview of the multiple roles of external statistics to meet novel analytical needs, the recent methodological updates and measurement challenges, as well as a comprehensive roadmap for enhancing external statistics in the years ahead. As global challenges reshape international economic and financial relations in an uncertain, rapidly changing world, external statistics need to quickly adapt to evolving user demands, especially for supporting policy. This calls for regularly revisiting statistical concepts, experimenting with new indicators and harvesting the vast amounts of data arising from the advance of technology.

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Introduction

In an increasingly politically fragmented yet economically and environmentally interconnected world, external statistics are paramount to understand and address developments in international economic and financial relations. They offer insights into the evolving features of the global economy, ranging from globalisation, digitalisation and climate change to the new patterns in international trade and financial flows shaped by geopolitics.

Yet in an uncertain world changing with unprecedented speed, external statistics need to quickly adapt to evolving user needs. This calls for regularly revisiting statistical concepts, experimenting with new indicators and harnessing the vast amounts of data arising from the advance of technology. Considerable work has been undertaken over recent decades to fill data gaps, update methodological frameworks and ensure consistency within and across macroeconomic accounts. But more work lies ahead despite limited resources, raising the need for developing cost-effective statistical products.

This policy brief provides an overview of the multiple roles of external statistics to meet novel analytical needs, including methodological updates and measurement challenges, as well as a comprehensive roadmap for enhancing statistical information on the external sector in the years ahead. It also draws on the proceedings of the second edition of the External Statistics Conference co-organised by the IFC and the ECB, in collaboration with the Bank of Spain (IFC (2024a)).

The multiple roles and facets of external statistics to meet novel analytical needs

External statistics can address multiple analytical user demands, especially by supporting policy in areas such as macroeconomic surveillance, financial and monetary stability as well as broader geopolitical considerations. First, statistics on the Balance of Payments (BOP) and International Investment Position (IIP) provide insights for macroeconomic surveillance and financial stability, particularly when it comes to monitoring international macro-financial risks. They also shed light on the rising role of cross-border non-bank financial intermediaries, guiding appropriate regulatory actions. Further, these statistics are essential for assessing the international transmission of monetary policies, for instance to document which sectors drive financial flows during periods of shifting risk sentiment (Lane (2024)). Finally, and perhaps most significantly, external statistics support the analysis of economic and financial relations in an increasingly uncertain geopolitical landscape. In this context, they help yield insights into the evolution of supply chain dynamics but also reveal changing patterns in global trade and financial linkages due to trade restrictions and geopolitical tensions (Gopinath et al (2024)). All in all, external statistics have been and need to remain "fit for multiple needs" to secure their relevance in response to the rising demand for multidimensional information (de Cos (2024)).

In addition, external statistics can play a substantive role in measuring the effects of climate change. The BOP and IIP frameworks can assist in mapping climate exposures by integrating related risk measures. They are also useful for evaluating cross-border interactions, monitoring global investment flows, and tracking carbon emissions. However, challenges persist due to inconsistent definitions, data gaps, lack of cross-country comparable data and the slower pace of producing new climate change-related statistics. Ongoing international initiatives, such as the G20 Data Gaps Initiative - for instance Recommendation 3 on measuring the carbon footprint of foreign direct investment (FDI) - are critical for bridging these gaps and supporting policy needs (IMF (2023)).

External statistics offer multiple lenses through which to analyse the geography of financial flows. The traditional approach to measure economic and financial cross-border interactions takes the residence of the economic units involved. This perspective provides a simplified analytical framework to identify where funds are sourced and used, while also being consistent with key macroeconomic indicators and concepts, such as the gross domestic product. However, it misses multinational activities that are based on economic control or ownership rather than residency (McGuire et al (2024a)). Analysing global financial flows from the nationality-based approach, which consolidates firms by their headquarters, as well as looking-through major financial intermediaries such as investment funds can be more effective for assessing financial stability risks and international financial integration (Beck et al (2024)). Additional measures, such as revenue-based and currency-based, can also enhance the understanding of global exposure and financial dynamics (McGuire et al (2024b)).

Lastly, external statistics are critical in capturing the complex and heterogeneous cross-border operations of multinational enterprises (MNEs). Accurately measuring the activities of MNEs is key, particularly as their complex operations may distort macroeconomic aggregates and blur the assessment of the real impact of FDI on the economy (Tissot and Truong (2019); Pastoris (2024)). To overcome these challenges, one possibility is to introduce new breakdowns, for instance on foreign-controlled corporations or special purpose entities (SPEs). Another possibility involves refining techniques to better estimate the real impact of FDI by identifying the ultimate host economy. This can be critical for accurately assessing where the economic benefits and the risks of investments really are. Enhanced data collection and integration, such as more detailed and centralised business registers at the international level, would also improve data accuracy and cross-country consistency (Lane (2024)).

Adapting to change: methodological updates and measurement challenges in external statistics

Reviewing external statistics' standards is essential for keeping pace with new developments. Here, an important milestone is the joint revision of the SNA (SNA 2025) and the BOP and IIP Manual (seventh edition, "BPM7"). Adjustments to these frameworks have increasingly become a pressing need to properly respond to the shifts observed in the global economy, especially since the Great Financial Crisis of 2007–09 and, more recently, the Covid-19 pandemic. Key methodological revisions focus on several thematic areas, including globalisation, digitalisation and financial innovation, well-being and sustainability (eg climate change statistics) and distributional accounts. Relatedly, another priority is to foster consistency *across* and *within* macroeconomic accounts, as well as to reduce international asymmetries that may arise from heterogeneous sources, recording practices or methodological interpretations (CFMB (2024)).

Notwithstanding recent progress, several challenges remain in the compilation of external statistics. First, statistics on portfolio investment still suffer from incomplete data collection both in terms of geographical and sectoral coverage. This may explain why global cross-border portfolio securities liabilities are substantially larger than estimates of the corresponding assets (Milesi-Ferretti (2024)). Similarly, incomplete data on portfolio investment, especially regarding third-party holdings, make accurately estimating hidden assets a complex task (Diz Dias et al (2024b)). Furthermore, measuring travel activities and cross-border mobility, particularly remittances, remains especially challenging despite their increasing relevance in the global economy. Finally, the digital transformation of today's societies and the shift from tangible to intangible activities pose new challenges for compilers of external statistics. Notable issues include the difficulty of capturing cross-border digital services using traditional data methods and measuring intangible assets, such as intellectual property products.

Leveraging innovation, alternative and granular data and promoting data-sharing with stronger international cooperation as the way forward

Embracing frontier technologies such as artificial intelligence (AI) presents several opportunities for the compilation and dissemination of external statistics. These technologies typically allow tapping into new information types and sources. They also facilitate the harnessing of granular data, improve data integration and linkages, and, ultimately, enhance the communication and understanding of statistics (IFC (2024b)). However, this wave of innovation also presents significant challenges. The use of complex algorithms, which can be difficult to interpret, raises concerns around transparency, explainability, reproducibility, and the opacity of "black box" models. This, in turn, necessitates careful attention to safety, ethical, and governance issues in the application of AI within statistical organisations.

The compilation of external statistics can significantly benefit from the emergence of new information sources, formats and types, such as granular and alternative data, including administrative records. These sources often allow for more detailed statistical breakdowns and/or can compensate for limitations in traditional data collection methods. Furthermore, external statistics can utilise alternative data types, including geospatial and positioning data, mobile phone records, card payment transactions, and other unstructured data like text and satellite imagery. These new sources contribute to drive the production of experimental indicators, as shown by the IMF PortWatch, which uses satellite-based vessel data to support policymakers in assessing the impact of realised and potential trade shocks (Arslanalp et al (2024)). However, leveraging alternative sources may involve challenges for compilers, as these data are often not intended for statistical purposes and may require considerable effort in processing, integration and quality management (IFC (2024c)).

Ultimately, the growing demand for and supply of data necessitate efficient data-sharing arrangements and robust international data governance. The ongoing avalanche of data, coupled with recent advancements in technologies such as AI and computational power, underscores the necessity for robust data governance framework to ensure qualitative and ethical aspects of this information (ie "data stewardship"). This is particularly important for improving data access for a broader range of compilers, especially from low-income countries. Moreover, addressing the increasing demand for alternative and more granular information requires effective data-sharing mechanisms both within and beyond the official statistical community, as well as across international borders. In this context, it is imperative for producers of official statistics to ensure that data are findable, accessible, interoperable, reusable and traceable, for instance through the adoption of commonly agreed statistical standards. Renewed efforts to streamline data-sharing frameworks and practices at the global level, particularly under the third phase of the Data Gaps Initiative endorsed by the G20, will be instrumental for further promoting and supporting these objectives.

Establishing a comprehensive roadmap for external statistics

Given the unprecedented pace of global change, anticipating emerging trends in external statistics is essential both for its users and producers. This calls for setting up a comprehensive roadmap in the years ahead, articulated in six blocks:

i. Capturing the impact of globalisation in an increasingly borderless world. Globalisation challenges residency-based measures in external statistics, pressing for developing additional approaches, for example based on control, ownership and nationality. Other key proposals include better tracking of SPEs, foreign-controlled corporations, global value chains, and securities ownership, while enhancing data on currency composition in trade and investment flows.

ii. Adapting external statistics to a digital and intangible reality. Digital transformation, including e-commerce and intangible assets, demands refined methods for measuring digital trade, innovative financial products, including cryptoassets, and financial derivatives.

iii. Incorporating environmental aspects into external statistics. Addressing climate change calls for better integrating environmental metrics into external statistics. This includes tracking environmental, social and governance (ESG) investments within the BOP and IIP, linking climate risks to FDI, and adopting new methods for measuring international carbon emissions.

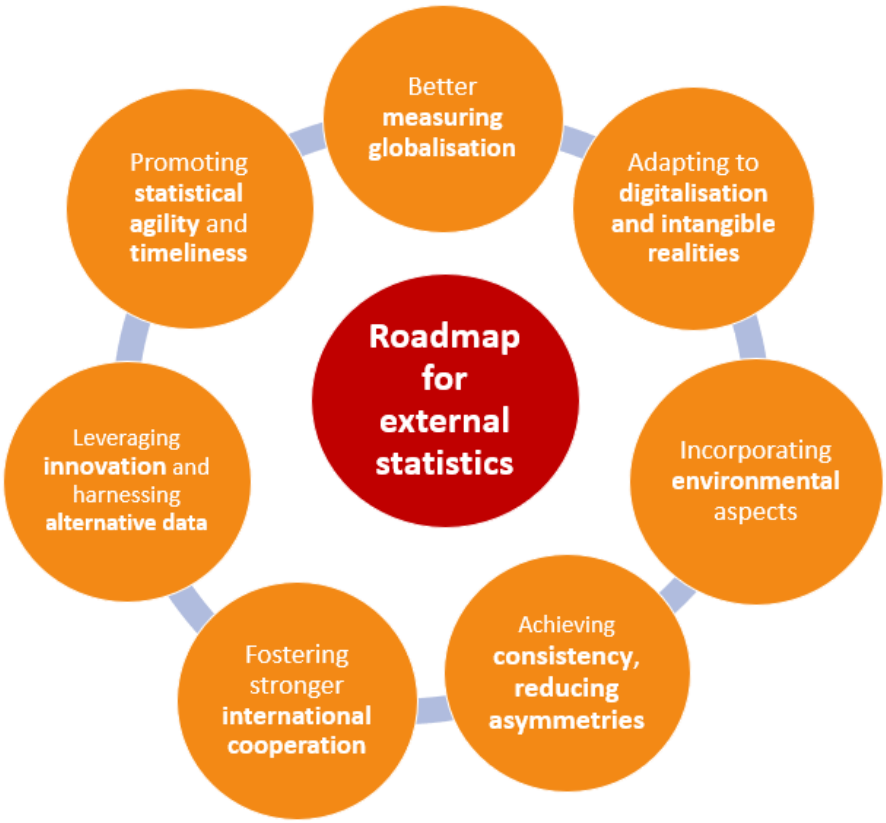
iv. Achieving consistency, reducing asymmetries and improving data reconciliation. Enhanced coordination between national and international statistics systems is crucial for reducing asymmetries and fostering consistency, including in recording practices. Developing global business registers and improving MNE data collections will also be priorities.

v. Harnessing alternative data sources and types. Leveraging alternative data sources, such as geospatial data, mobile phone data, and payment statistics, can enhance the monitoring of cross-border activities like travel or financial derivatives.

vi. Promoting the agility and timeliness of external statistics in a fast-changing global economic landscape. To remain relevant, external statistics must focus on timely releases, access to micro data, and the development of experimental and higher-frequency statistics to inform policymakers effectively.

To be successful, the implementation of the above roadmap requires a clear and shared vision for the future of external statistics (Figure 1). Leveraging innovation, promoting international cooperation and maintaining trust in official statistics will be essential in bringing such a vision to fruition.

Figure 1. Roadmap for external statistics



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