Measuring cross-border derivatives in the United States

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1. Introduction

The United States recently began to include derivatives-related, cross-border claims, liabilities, and payment flows in its official international investment position and balance-of-payments data. The source of these data is the *Treasury international capital report of holdings of, and transactions in, financial derivatives contracts with foreign residents* (TIC D). This new reporting system was a collaborative effort of the US Treasury and Commerce Departments, the Board of Governors and the Federal Reserve Bank of New York (FRBNY). This paper discusses the reporting system, with a focus on aspects of its design, implementation and management that limit reporting burden and promote data quality.

2. Report design and consultation

As the need for information continues to grow, limiting reporting burden – to the extent possible in keeping with meeting information needs – is a key objective of US data collectors like the FRBNY. For any new data collection, the first way this goal is served is through consultations with prospective reporters during the design phase to discuss data needs, data availability, and the associated reporting burdens. This practice can lead to recommendations from reporters of ways to meet data needs more efficiently and with higher-quality data. It can also bring about clearer definitions and enhanced understanding of the information that is collected.

In the case of the new TIC D report, this consultative process was particularly important. The complexity of derivative contracts presented challenges for reporting; these difficulties were compounded by the fact that derivatives information is not needed on a balance-of-payments basis for reporters' operations or internal risk management. An important safeguard of data quality is aligning report data with the information of reporters' business operations and internal risk management systems. Additional complications were caused for some reporters by the many business units and assorted information systems that had to be accessed. The need to accumulate data on significant daily flows was particularly difficult for reporters. In these circumstances, the consultative process led to several changes to accommodate reporters, while still collecting the information needed by data users.

Once the report's requirements were finalized, reporters were given substantial lead time to develop their systems to meet its requirements. The new report's introduction was further eased by gradually phasing in different parts of the report according to a schedule that started with more readily available data, and progressed through the more difficult to most difficult report elements.

[1] Statistics Function, Federal Reserve Bank of New York. The views expressed in this paper are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of New York or the Federal Reserve System.

3. Reporting burden, coverage and threshold

The Federal Reserve has collected derivatives information through several reporting systems for over 20 years. While none of these data collections could be used to meet the need for balance-of-payments information, other reports did provide established data definitions and useful perspectives for the design of the new report. In particular, experience with other reporting systems had revealed the concentrated nature of the derivatives markets. According to bank regulatory report data, for example, just five of more than 1,000 US banks with derivatives account for 97% of the notional values of all US bank derivatives. Such experience suggested that reasonable market coverage could be achieved – and reporting burden limited – through a relatively small panel of very large reporters. The initial reporting threshold, which was defined in terms of notional values, was therefore set at $100 billion.

The new report's data confirmed that this approach was appropriate and further indicated that the threshold could be set yet higher without significantly impairing data coverage. For example, with the $100 billion threshold, it takes half of the panel's smaller reporters to account for 1% of total reported cross-border fair values, and a somewhat larger proportion of net payment flows. In these circumstances, a proposal has been published to raise the reporting requirement to $400 billion effective next year.[2] A provision has also been added to keep any reporter on the panel who has reported particularly large net payments or receipts.

While the new report collects information about the gross fair values of cross-border claims, liabilities, and payment flows, its reporting requirement was defined in terms of a different measure: the notional values of derivatives on a US-based, consolidated basis. This was done for several reasons. First, the requirement was set in terms of consolidated holdings of derivatives since determining cross-border outstandings would require extensive work sorting counterparties by legal location. As to the choice of notionals, while published financial statements in the United States have generally included the fair values of derivatives on an after-netting basis, these values are often netted and reported differently, thereby making comparisons across institutions or against a benchmark meaningless. Consolidated notional values are readily available for banks and foreign branches in the United States through regulatory reports. For non-banks, and especially the non-bank subsidiaries of foreign entities, however, notional values as well as any other measures of derivatives activity are often not publicly available. Alternatives to notional values for the TIC D report have been considered and discussed, and will certainly continue to be examined as published financial reporting requirements in the United States change. But for now, notionals still seem best for the terms of the reporting requirement.

4. The report and its elements

The TIC D report has three columns, "Gross positive fair values", "Gross negative fair values" and "Net settlements". It is broken down into two parts. Part 1 collects cross-border derivatives data by type. OTC contracts are reported by major risk type and instrument. Exchange-traded contracts are reported according to foreign resident contracts on US exchanges and US contracts on exchanges abroad, the reporter's own and its customers'. Part 2 obtains a breakdown of totals by country of counterparty.

The report avoids creating new data items and definitions to the extent possible. The definitions of derivatives and gross fair values are thus the same ones that reporters would use in their regulatory or published financial reports, but sorted by country of counterparty

[2] Federal Register, vol 73, no 106, June 2, 2008, Notices, pp 31543–4.

according to balance-of-payments definitions. The use of established definitions also promotes data quality, where possible by creating comparability with balance sheet and other report data.

Net settlements,[3] the net flows of cash payments associated with all cross-border derivatives activity, constituted the hardest data gathering challenge for reporters. In view of the extensive netting of credit exposures and payments, reporters asked for payments to be reported on a net basis.

5. Inter-series comparisons and data quality

TIC D report data were reviewed extensively before being released to data users. This was an important safeguard. The TIC D is a unique data series, with no direct counterparts, but individual reporters' data are compared, reviewed and analyzed in several ways to help assure data quality. The concentrated structure of the derivatives market and the report's relatively small panel facilitates more in-depth analysis of individual reporters' data.

For many reporters, including all of the very largest, individual institutions' TIC D data can be compared to the reporters' global consolidated data. Through discussions with reporters about the nature of their business, and particularly where their major derivatives units are located and contracts booked, differences between the two series can be broadly understood, reconciled, or the need for corrections identified. The cross-border totals for the major OTC risk types of derivatives can be compared quarterly for bank holding companies, US branches of foreign banks, and semiannually for the very large dealers who file the *BIS Semiannual report of derivatives activity* with FRBNY. For US-based global institutions, the proportion of TIC D fair values to global consolidated fair values can vary substantially from dealer to dealer depending on which portions of the various derivatives business lines are based in the US or abroad. But for large dealers, the proportion tends to be fairly steady from quarter to quarter and if not, the factors leading to the shift can be identified and explained.

As noted, the TIC D report collects data for single currency interest rate contracts, foreign exchange, and other contracts. To permit more detailed comparisons, if approved, fair values for the fast growing credit and equity derivatives will be broken out from "Other contracts" and reported separately starting next year.

In contrast to gross fair values, the TIC D report's net settlements cannot be productively analyzed in terms of data of other reports. It has been useful, however, to calculate and review the quarter-to-quarter changes in derivatives valuations implicit in each reporter's data; in other words, the quarter-to-quarter changes in net fair values, plus or minus the current quarter's net settlements, scaled by the size of the portfolio. Note that reported changes in net fair value should reflect valuation changes from underlying price moves or time decay, or result from cash flows that are reported in net settlements. Portfolios with large positions should show the larger market value moves. The data of smaller reporters have sometimes shown very large implied valuations, which could be understood in terms of the reporter's particular positions or transactions.

[3] Defined in the report's instructions as "all cash receipts and payments made during the quarter for the acquisition, sale, or final closeout of derivatives, including all settlement payments under the terms of derivatives contracts."

6. Data highlights

The new TIC D report has opened an interesting and useful window on the cross-border derivatives activity.

- The reported positive and negative fair values, reported on a pre-netting basis, are very large. However, the net claims are small in comparison.
- Counterparties in the UK, the location of many dealers, account for almost 60% of cross-border claims and liabilities related to derivatives.
- Net settlements related to derivatives represent a small portion of US balance of payments flows.