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THE recent global financial crisis revealed gaps in economic and financial data that hindered detection of a buildup of economic risks. Eight years after the beginning of the crisis, policymakers and statisticians have made progress in identifying and addressing missing information. But more work is needed to complete the data enhancements envisioned in 2009 by the Group of 20 (G20) advanced and emerging market economies.

The so-called data gaps initiative, whose first phase ended in September 2015, dealt with missing information that is important to monitoring both financial institutions and global developments (a process called surveillance). It involved many organizations that gather economic and financial statistics. The G20 (which comprises Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and the European Union) has authorized a second phase of the data gaps project.

Regulatory reform

The initiative deals with missing information that is essential to implementing global regulatory reforms to protect against problems in financial institutions that could spill across borders and affect the stability of the international financial system. Information was needed in the following areas.

Soundness of the financial system: The IMF has long produced a set of statistics, *Financial Soundness Indicators*, essential for monitoring and assessing the health and soundness of the financial sector overall. The data previously focused primarily on banks' health. Because of the rapidly changing financial environment and postcrisis global regulatory reforms, the list of indicators was updated in 2013, with an increased focus on nonbank financial institutions. The number of countries covered since 2008 has grown from 45 to more than 100.

Shadow banking: Financial institutions, such as investment firms, that are not banks but assume bank-like risks in providing funding to borrowers have been growing in importance in global financial markets. Typically, these institutions borrow heavily short term while investing in long-term assets that are hard to sell quickly. This exposes them to cash flow and maturity risks. But because they are not banks, many of their activities have not been captured by traditional banking regulation and statistics gathering. In 2011, the Financial Stability Board

(FSB), an international body that monitors the global financial system, began an annual global shadow banking monitoring exercise that, as of 2014, included jurisdictions that account for 80 percent of global GDP and 90 percent of global financial system assets. The FSB plans to begin collecting and aggregating data on securities financing markets in 2017.

Global systemically important banks: Because major banks that are globally interrelated can spread shocks across borders and because the failure of one (or more) of them could severely upset the global financial system, several measures have been adopted to improve these institutions' resilience. Better data on the linkages among these institutions and their relationship to national financial systems can clarify the risks they pose. To this end, unique reporting forms were developed by a group headed by the FSB to produce consistent, detailed information on these global institutions that can be used by domestic regulators and to some extent by international financial institutions to monitor international financial stability. Data are being collected on bilateral linkages. This collection will continue and will include information on their exposure to and lending from 35 key economies.

Securities and derivatives markets: Because securities markets are an important channel for financing the real economy, better information about these markets is essential to understanding what is in the portfolios of both borrowers and creditors. The new *Handbook on Securities Statistics*, produced by the European Central Bank, the Bank for International Settlements (BIS), the IMF, and the World Bank, is fostering improvement in G20 countries' reporting to the BIS database on securities statistics. Moreover, the need to increase the transparency of trading in the over-the-counter *derivatives* markets has led to expanded coverage of data on credit default swaps, which are derivatives to insure against loan defaults. The second phase of the data gaps initiative will expand coverage of other derivatives traded over the counter—that is, not on an organized exchange.

Surveillance

Because institutions are increasingly interconnected, financial market shocks can spill over significantly across borders and across markets and institutions. This prospect calls for stronger balance sheet information and enriched flow-of-funds data to help analyze the impact of shocks and their transmis-

sion across sectors. New global flow-of-funds analysis has the potential to better reflect global interconnection (see box).

Sectoral accounts: Better data are needed on the balance sheets of various sectors of an economy—such as households and businesses—and on how funds flow within and among these sectors to assess links between the real economy and the financial sector and among economic sectors. But many countries lack such comprehensive data and are placing a high priority on improving and expanding that information. Progress has been slow because of the difficulties of collecting consistent data from all sectors of an economy.

Information is also missing for the government sector. The support many national authorities provided to the financial sector following the global financial crisis plus the costs of

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recession led to larger fiscal deficits and government debt. But there is little consistent and comparable fiscal data across the G20 economies, largely because state and local governments are not well covered and because such data are not institutionally well established in many countries. Although there has been an improvement in the availability of government debt statistics, more work is needed from national authorities in cooperation with international organizations.

In a world in which capital flows freely from country to country and where there are few credit constraints, financial vulnerability can arise from growing inequality in the distribution of income, consumption, saving, and wealth. The Organisation for Economic Co-operation and Development is studying the link between distribution of income and national income accounts, such as GDP, and working on improving understanding of income, consumption, and wealth.

Cross-border financial interconnection: The crisis showed the impossibility of isolating problems in a single financial system because shocks propagate rapidly across financial sys-

Global flow of funds

Data on cross-border financial exposure can be linked with domestic sectoral accounts data to build a comprehensive picture of financial interconnection domestically and internationally with a link back to the real economy through sectoral accounts. The result is known as the global flow of funds.

The construction of a global flow-of-funds framework was first outlined in 2011, and work began in 2013 as part of a broader IMF effort to strengthen the analysis of cross-border connections, global liquidity flows, and global financial interdependence. The project aims to construct a matrix that maps domestic and external financial stocks and that can be broken down bilaterally by countries and by regions. The matrix is intended to support regular monitoring of bilateral cross-border financial flows through a framework that highlights risks to national and international financial stability. The IMF is working toward developing a global flow of funds matrix of the largest global economies first.

tems. The central framework for understanding the linkages between a domestic economy and the rest of the world is the international investment position, which covers a country's exposure abroad—both its assets and liabilities.

Three other data sets essential to understanding cross-border interconnection are *international banking statistics* collected by the BIS, which provide quarterly information on overall assets and liabilities of internationally active banking systems; the IMF's semiannual *Coordinated Portfolio Investment Survey*, which contains information on bilateral portfolio asset holdings; and the IMF's *Coordinated Direct Investment Survey*, which contains information on bilateral direct investment positions. Significant progress has been made in improving these data sets. Frequency of international investment position reporting was increased from annually to quarterly. The BIS data have been enhanced with expanded coverage of banks' balance sheets and more information about banks' counterparties, especially nonbank financial institutions. The IMF portfolio survey is now more frequent and has increased coverage.

Property prices: The importance of good real estate price statistics has become clear—not only because property prices affect household consumption but because of the need to monitor these prices when monetary policy seeks to encourage spending and investment. Before the crisis, the availability and international comparability of real estate price statistics were limited. In 2010 the BIS began to disseminate residential real estate price statistics—including from most G20 countries—although more work is needed to ensure their consistency. Indices for commercial property prices are also being developed.

Although G20 economies have been the focus of the data gaps initiative, all 188 IMF member economies are indirectly affected, given the broad benefits of the initiative.

The data gaps initiative also helped improve data reporting. At the IMF, it facilitated the introduction of a new tier of enhanced data dissemination standards for economies that are key players in international capital markets and whose institutions are interrelated through such channels as interbank and securities lending, repurchase agreements, and derivatives contracts. In addition, a website, *Principal Global Indicators*, was launched, which includes data for the G20 economies and 14 non-G20 members whose financial sectors are systemically important.

Next phase

It is not easy to deliver comprehensive information in a standardized, frequent, and timely manner; that is reliable and of high quality; and that reflects the changing economic circumstances of economies and financial systems. But as recent efforts demonstrate, over time and with global cooperation it is possible. To reap the benefits of the investments of the G20's initial data gaps initiative, all players in the global economy must keep up the pace of work and coordination as the second phase of the initiative begins. ■

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