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The Great Financial Crisis: setting priorities for new statistics

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Keywords: Financial crisis, systemic risk, banking statistics, property prices

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The Great Financial Crisis: setting priorities for new statistics

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Abstract

Every financial crisis brings in its wake demands for more information; the latest one is no exception. Because, in deceptively tranquil times, it is well-nigh impossible to foster the consensus necessary to improve data availability, such a window of opportunity must not be missed. To be sure, the main reason why crises occur is not lack of statistics but the failure to interpret them correctly and to take remedial action. But better statistics can no doubt be a big help. Priorities for new data collections include better property prices and, above all, comprehensive financial information for banks on a consolidated and global basis, covering their balance sheets but also their income statements. This could be usefully complemented with corresponding information on the international geography of these banks' operations and, for crisis management purposes, with much more timely and granular data on their bilateral exposures. The collection of information should be based on sound governance arrangements, flexible and cost-efficient. The BIS can play and is playing a very active role.

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Introduction¹

We live in a world of paradoxes. And the Great Financial Crisis has put the spotlight on yet another one: in our internet age, we are constantly bombarded with data, and yet we do not have at our fingertips the information to answer even basic questions about the health of our financial system. Either this information does not exist or, if it does, it is not collected in a way that makes it easily available and digestible.

Can this really be true? Consider just one example. Public reports by banks are growing ever more voluminous. And yet anyone who has been charged with monitoring banks' health knows just how difficult it is to draw on this material and other sources of information. Often, special data-gathering exercises must be carried out. And even these are quite laborious. Those who, like me, have been involved in efforts to assess the macroeconomic impact of Basel III know this all too well. It is simply hard to gather the necessary information: it is hard with respect to current conditions and even harder with respect to their historical evolution.

Every financial crisis brings in its wake demands for more information. The crises in developing countries in the early 1980s gave a big push to improvements in the BIS international banking statistics.² The Asian crisis led to refinements in those statistics (CGFS (2000)) and resulted in major enhancements to the disclosure of foreign exchange reserves (CGFS (1998)), which were included in the IMF's Special Data Dissemination Standard (SDDS) that had already come into effect in 1996. The more recent upheaval is no exception. Just to mention one of the many efforts, the G20 have identified a large number of data gaps that are now being addressed (FSB-IMF (2009)).

Crises open windows of opportunity that should not be missed. In deceptively tranquil times, it is simply too difficult to foster the consensus necessary to improve data availability. The sense of urgency is absent. Why fix what, seemingly, ain't broken? The cost/benefit analysis calculus is heavily biased towards inaction.

To take advantage of these narrow windows of opportunity, we need to have the right expectations and set the right priorities. Even in the internet age, and contrary to what finance textbooks often assume, the costs of gathering information are not negligible. Beyond technical factors, disagreements over the value of the information stand in the way. And so do concerns about confidentiality, both within and across countries.

In what follows, I will address three questions. First, what benefits for financial stability can we realistically expect from better statistics? Second, what should be the priorities regarding what information to collect and how to collect it? Third,

¹ This essay was prepared for a keynote speech at the conference "The future of regulatory data and analytics", Bank of England, Centre for Central Banking Studies, London, 17–18 January 2013 and is forthcoming in the *Journal of Banking Regulation*. I would like to thank Wayne Byers, Dietrich Domanski, Ingo Fender, Jacob Gyntelberg, Bob McCauley, Pat McGuire, Denis Pêtre, Pradhan Swapan-Kumar, Kostas Tsatsaronis, Paul van den Bergh and Philip Wooldridge for helpful comments and suggestions. The views expressed are my own and do not necessarily reflect those of the Bank for International Settlements.

² For accounts of these efforts, and the obstacles they faced, see Borio and Toniolo (2008), Lamfalussy (2000) and Maes (2009).

what role does the BIS play in this endeavour? This will allow me to put the data gathering efforts under way in response to the crisis in a broader context.

Let me highlight the main takeaways.

First, there is no holy grail. Better statistics can no doubt be a big help in safeguarding financial stability; improvements are badly needed. That said, the main reason why crises occur is *not* lack of statistics but the failure to interpret them correctly and to take remedial action.

Second, we should walk before we run. Concerning the “what”, out of the myriad of new statistics that have been put forward, I would highlight two sets, one for prices, of which there is otherwise an abundance, and one for quantities, for which information is much more limited. We urgently need long and internationally comparable series for property prices; and, above all, we urgently need consistent and timely financial information for banks on a consolidated and global basis, covering their balance sheets and, also, income statements – the cornerstone of any more encompassing and sophisticated reporting system. This could be usefully complemented with corresponding information on the international geography of these banks’ operations and, for crisis management purposes, with much more timely and granular data on their bilateral exposures. Concerning the “how”, the collection process should be based on governance arrangements that are sound, flexible and cost-efficient.

Finally, the BIS can play and is playing a very active role. To do so, it can leverage its comparative strengths: a long track record; the presence of key players (central banks and supervisory authorities); and a specific infrastructure on which to build – the international banking statistics. This has allowed the institution to contribute significantly to post-crisis efforts by the international community to improve the statistics, at least for the banking sector. But while the improvements have been substantial, more needs to be done.

1. Expectations: there is no holy grail

Could better statistics *by themselves* have allowed policymakers to anticipate the recent catastrophic financial crisis? I very much doubt it.

To be sure, there *were* big statistical gaps. For instance, aside from some aggregate figures, notably those compiled by the BIS, we had hardly any information on credit derivatives exposures. Gross and net outstanding volumes in credit default swap (CDS) markets by underlying name became available via the Depository Trust & Clearing Corporation (DTCC) only a long way into the crisis; and, even then, the identity of the counterparties remains beyond reach for a broader audience, although supervisors can now more easily obtain such data for their own jurisdictions from the DTCC. Similarly, the extraordinarily large US dollar funding needs of European banks – a puzzling factor at the core of the unfolding strains – were on no one’s radar screens. Only after the crisis broke out did work at the BIS, drawing on its international banking statistics, provide tentative ranges of magnitude (McGuire and von Peter (2009)).

But the failure to anticipate this crisis, and those before it, did not stem from faulty *statistics*. Rather, it stemmed from the faulty *lens* through which those

statistics were examined. Ultimately, we see what we want to see.³ What is a sustainable credit boom for some sounds alarm bells for others. What some view as a healthy redistribution of risk in the financial system, others see as fuelling dangerous risk-taking. Policies that some regard as prudent others consider reckless. Historically, time and again, it has not been possible to adjudicate between these fundamentally different perspectives drawing on data alone. Add to this the human tendency to take credit for successes and to disown failures – so that, to paraphrase John F Kennedy, “booms have a thousand fathers, busts are orphans”. The inevitable result is huge difficulties in anticipating the crisis, let alone in taking action to prevent it.

And yet, signs of the gathering storm *were* there. True, they could not be detected through the ever more popular macro stress tests. Indeed, all those run *before* the crisis failed to identify vulnerabilities. As argued in detail elsewhere, given *current* technology, regardless of data availability, these tests risk lulling policymakers into a false sense of security (Borio et al (2012)). But the signs could be spotted through simple real-time leading indicators of financial distress, such as those based on the *joint* deviation of the ratio of credit-to-GDP and asset prices, notably property prices, from historical trends (Borio and Drehmann (2009)). Indeed, such indicators have also performed well out of sample. The secret of their comparative success is simple: they focus on the most systematic and general signs of the build-up of risks across policy regimes and historical periods – they focus, that is, on what is common to the various episodes, rather than on how they differ.

At the same time, it would be a serious mistake to infer from this that more and better data are not necessary. Far from it!

First, even those simple leading indicators could greatly benefit from better data. For instance, there are major limitations in available property price series; likewise, available credit series fail to fully capture cross-border exposures (eg Borio et al (2011), Borio and Drehmann (2009)) – points to which I will return later.⁴

Second, by their very nature, those indicators have a limited function. Their source of strength is also their source of weakness. Given their generality, as a prevention tool they can at most act as a starting point for a fuller analysis based on much more granular information.⁵ They raise a flag, but a drill-down exercise must follow. They are silent about the more specific nature of the vulnerabilities and about the possible dynamics of financial distress. Moreover, by design, they cannot help us understand unfolding events during a crisis and in its aftermath.

Third, looking further ahead, better statistics are indispensable for improving our understanding of the mechanisms that underlie the build-up of financial risks and their materialisation in financial crises. They are essential to develop and test analytical hypotheses from which eventually to refine or develop concrete policies and calibrate tools.

³ Psychologists have a specific term for this well known phenomenon: “cognitive dissonance”.

⁴ In addition, often the series are not fully comparable or very long. As a first step to remedy this drawback, the BIS has recently released a new database on credit to the private non-financial sector (including breakdowns) that covers 40 economies with, on average, more than 45 years of quarterly data, reaching back to the 1940s and 1950s in some cases. See Dembiermont et al (2013).

⁵ For a conceptual framework of how such a two-step approach might be set up, see Eichner et al (2010) and Cecchetti et al (2010).

To sum up, any set of statistics, no matter how sophisticated and reliable, inevitably has limitations. However, it is important that policymakers, market participants and scholars have the best possible set of statistics at their disposal, subject to a proper cost/benefit test. And awareness of what statistics can and cannot do is the best way of limiting the risk of putting too much faith in them. All statistics, if you like, should come with a big health warning.

2. Priorities: walk before you run

The crisis has provided one of those rare opportunities to implement a welcome and much needed step enhancement in available statistics. But gathering statistics is costly. Priorities must be set regarding what to collect and how to collect it. Consider each of these issues in turn.

What to collect

As for the “what”, I would highlight two gaps: the first, quite specific, concerns prices; the second, potentially much more extensive, concerns quantities.

The proliferation of price series is, without a doubt, extraordinary. In particular, financial innovation and deepening have spawned an unprecedented expansion of financial contracts. Risk has been spliced and diced, reduced to its atomistic components and recombined in various ways. The corresponding financial contracts trade at a price. Those prices have generally become publicly available, in some cases even at intraday frequencies.

If anything, there is an *overabundance* of such information. All too often, observers, policymakers and market participants are glued to their screens, their attention riveted on the latest blip. It is hard to distinguish true information from noise. And there is a risk of misreading that information. This is especially the case when assessing potential vulnerabilities in the financial system. Time and again, financial market prices have proved to act more like *contemporaneous* indicators of financial distress rather than true *leading* indicators – that is, to act more like *thermometers* than *barometers* (Borio and Drehmann (2010)). Volatilities, spreads and risk premia tend to be unusually low precisely when risk is building up, and to spike only when risk materialises. What looks like low risk is, in fact, a sign of high risk-taking. The build-up of risk is akin to the slow shift in tectonic plates: it takes place over many years, well beyond traditional business cycle frequencies, with the waxing and waning of the financial cycle (Drehmann et al (2012)). High-frequency information distracts our attention; it obscures the bigger picture. When this happens, it can paradoxically be part of the problem, rather than part of the solution (Borio (2012)).

One critical exception to this abundance of data is *property prices*, for both residential and, especially, commercial property (and corresponding information about rents). This is puzzling. Throughout history, property prices have been at the heart of some of the most serious and damaging financial crises (eg Hoyt (1933)). The reasons are not hard to find: property prices are subject to major booms and busts, especially those for commercial property; property represents a major fraction of an economy’s perceived “wealth”; it is extensively used as collateral; and its purchase is largely financed with debt. Not surprisingly, property prices also play an important role in the above-mentioned leading indicators of banking crises. Indeed, our work suggests that combining property prices and credit is the most parsimonious and helpful way of capturing financial cycles (Drehmann et al (2012)).

And yet, available statistics are extremely poor. The series are generally limited in coverage and granularity, their extension back in time is gravely inadequate, and consistency across countries is a serious problem.

But the more pervasive gaps relate to *quantities*, not prices. It is rather extraordinary that we still lack readily available statistics for comprehensive consolidated data on banks' global operations, covering first of all their balance sheets but also their income statements. The banking system is increasingly global. What we need is good information about the system as a whole *and* the individual institutions within it – that is, we need to see the forest *as well as* the trees within it. And yet, the publicly available data that do exist are still incomplete and sparse. With few exceptions, the BIS international banking statistics being one of them (see below), they are generally unreliable, untimely, inconsistent across firms and borders, user-unfriendly and hard to aggregate meaningfully. And while national supervisors may have good information about the banks under their purview, they lack similar information about the rest. They can, that is, at best see only see a few trees and part of the forest. At the BIS, we have regarded reliable and sufficiently granular information about the global banking system as *the* top priority for quite some time (eg Cecchetti et al (2010), Borio (2010), BIS (2011)).

Collecting data on a consolidated basis for individual firms is critical. Residency-based data – the data that underlie national account statistics – are the right ones if we are interested in knowing *where* output is produced and financial claims are held. But they do not tell us *who* makes the underlying economic decisions. In a world in which firms increasingly operate across borders, consolidated data provide a better approximation to the actual decision-making units. It is these units that decide where to operate, what goods and services to produce at what prices, and how to manage risks. Importantly, it is these units that ultimately come under strain. This is what consolidated supervision is all about.

Both balance sheet and income statement information are important. Consolidated balance sheet information, covering *both* assets *and* liabilities (on- and off-balance sheet) comprehensively, would be a solid basis on which to build. It would provide the basic building block for the assessment of exposures to various risks – credit, market and liquidity (funding) risks. And it would help bring to light the common exposures across banks to various risk factors, countries and sectors.⁶ Corresponding income statement information would be critical to assess how much money banks are making and in what activities⁷ as well as to assess over what horizon they could be expected to recover from losses and rebuild capital. Earnings capacity is essential for evaluating resilience. The importance of income statement information has increased further with Basel III, which envisages sanctions in the form of restrictions on income distribution.

This is the absolute core from which to expand, the top priority. It is then possible to identify two sets of complementary information.

One set is information on the *offices from which international banks operate*. This information is relevant whenever intra-firm “capital markets” do not work

⁶ For a systematic analysis of the type of possible risk information at the level of individual institutions and the system as a whole, see Borio and Tsatsaronis (2005). For individual institutions, see also BCBS, CGFS, IAIS and IOSCO (2001).

⁷ In a highly competitive environment, suspiciously high profits can easily be a sign of excessive risk-taking (eg Fisher (2012)).

seamlessly, because of either business or regulatory and supervisory considerations, so that consolidated information is not exhaustive.⁸ It can help form a complete view of the geography of international banking and better assess fault lines and the transmission of dislocations (McGuire and von Peter (2009)). After all, globalisation cannot be taken for granted and national priorities can clash with international considerations. As Tom Huertas (2009), then at the UK Financial Supervisory Authority, famously put it, “banks may be global in life, but they are national in death”.

A second set of complementary information concerns *bilateral exposures*. This has become quite popular following the financial crisis and the development of analytical approaches to the modelling of systemic risk that trace the knock-on effects from one institution to the next. The approach views the financial system as a network of connections linking institutions (eg Allen and Babus (2009), Gai et al (2011)). But in understanding the value added of this type of information, I would draw a sharp distinction between its use in crisis prevention and in crisis management.

As regards crisis prevention, at best this type of information falls under the category “nice to have”. True, interlinkages are necessary to estimate meaningful balance sheet measures of sectoral or aggregate leverage: the capital available to absorb losses in any given sector can easily be overstated unless interlinkages within the sector are taken into account (eg the well known “double leverage” phenomenon). Interlinkages can also be helpful in determining the systemic significance of institutions (eg Drehmann and Tarashev (2011), BCBS (2012)). But detailed counterparty exposure information would have very limited value unless it was grafted onto reliable, basic information about each institution’s balance sheet. And there is a risk of putting too much emphasis on interlinkages as a factor driving contagion. Common (similar) exposures of institutions, on both their assets and liabilities sides, together with indiscriminate responses by investors and counterparties, are the main drivers of the dynamics of financial distress.⁹ A financial crisis is more like a tsunami that sweeps away all that gets in its way than a force knocking down one domino after another.

By contrast, *if properly designed*, this information can be very helpful in crisis management. It can provide the authorities in charge with a better idea of the size and nature of pressure points and therefore of where and how to intervene. This type of information, for instance, was badly needed, but not available, at the time of the Lehman Brothers failure in 2008. As a result, the authorities operated very much in the dark. But for these data to be helpful, they have to be very up to date and quite granular. They are particularly relevant for exchanges among supervisors.

Why do I place so much emphasis on the banking sector? When priorities must be set, no doubt the banking sector is the right place to start. Financial crises have repeatedly shown that, one way or the other, problems elsewhere in the non-financial and broader financial sector ultimately end up back with the banks, as strains become acute and more damaging. And unless banks are affected, problems hardly become systemic.

⁸ On liquidity management practices in particular, see CGFS (2010).

⁹ See, for instance, See Elsinger et al (2006) for empirical evidence on this point; see Upper (2007) for a critical survey of contagion analysis based on networks.

Over time, and less urgently, such a set of statistics could serve as a model and be extended to cover other parts of the financial sector, and in particular the so-called “shadow banking” system. The Great Financial Crisis has reminded us of how turbulences can spread from financial intermediaries that, while not classified as banks, share with them some fundamental characteristics, viz a combination of credit extension, maturity transformation (liquidity provision) and leverage. This is a frequent feature of financial crises. It was, for instance, quite prominent in both Sweden and Japan in the early 1990s. And it will no doubt be prominent again in future: during financial booms, there are always strong incentives for credit flows to migrate towards the less regulated sectors. Just think, for instance, of the current strong expansion of the “shadow banking” sector in China. But, to start with, getting a rough idea of the size of the sector, of its credit extension and of the corresponding bank exposures to it, seems sufficient to evaluate vulnerabilities.¹⁰

Of all the international reporting systems in place pre-crisis, the one that came closest to providing the core information identified here as a priority is the BIS international banking statistics. The set combines consolidated balance sheet information (based on the nationality of the bank) with residency-based (locational) information, providing a bridge between national account statistics and those needed to understand the behaviour of individual decision-making units.¹¹ The statistics are collected on a consistent basis internationally. Their timeliness has improved over time, with a current reporting lag of roughly one quarter. The coverage is quite extensive, including internationally active banks from some 40 jurisdictions, and accounting for about 95% of all international claims. Their reliability is constantly checked and improved.

At the same time, pre-crisis these statistics had a number of limitations. First, they covered only the *international* operations of the reporting banks and at a banking system, not individual firm, level. Second, the granularity of the information was rather limited. Not least, for historical reasons the consolidated statistics focused primarily on the *assets* side of banks’ balance sheets and hence had little to say about funding risks. While combining them with the residency-based statistics that identify the nationality of the bank could help to overcome some of these limitations, the scope for improvements remained substantial (Cecchetti et al (2010), Fender and McGuire (2010), BIS (2011)). Finally, the statistics included no information about capital¹² or income.

How to collect it

Priorities must be set not only for what to collect but also for how to collect it. The process is important. A number of principles suggest themselves (see also Tarullo (2010)).

First, governance matters. For one, to ensure consistency, the process should be guided internationally. Purely domestic efforts risk resulting in inconsistent data sets. If the data sets are consistent, the total is more than just the sum of the parts. Given the global nature of the operations of many reporting firms, international

¹⁰ For international work on the shadow banking system, see FSB (2012a, b).

¹¹ For an illustration of how rich the analysis based on the combination of consolidated and residency-based data can be, see Fender and McGuire (2010), who explore funding risk in the global banking system.

¹² Some, limited, information about capital could only be collected and used on an ad hoc basis.

coordination should also facilitate the collection of the data. In addition, those responsible should have the necessary legal powers to collect the information. In some cases, data may need to be gathered on a voluntary basis. International peer pressure can help catalyse the necessary efforts. Finally, and critically, the process should ensure the confidentiality of the data, whenever necessary. This is especially important when supervisory information is involved.

Second, flexibility is critical. The *specifics* of the next crisis will be different from those of the recent one. The financial system will continue to evolve rapidly and, rest assured, it will do so especially in the shadows, away from the reach of regulation (Eichner et al (2010)). Any collection system should be flexible and agile enough to keep up with these changes. The chain from the identification of the necessary data to their collection should be short and efficient. This should apply to both permanent revisions to the reporting frameworks and to more ad hoc, one-off collection of statistics to address specific issues.

Third, costs matter. In order to reduce collection costs and barriers to the gathering of new information, it makes sense to build as far as possible on available infrastructures, whenever they are up to the task.

3. What the BIS can do and is doing

Throughout its history, the BIS has been instrumental in developing consistent sets of global financial statistics. This has been a core task in the performance of its overall mission. Following the financial crisis, the institution has continued to play a key role, and stands ready to do so in future, leveraging two comparative strengths.

The first strength is its long track record in identifying, compiling, analysing and disseminating relevant international financial statistics. The international banking statistics have existed since the 1960s. They have been constantly improved in the light of changing needs. And, over time, they have been complemented by statistics on activity in foreign exchange markets, debt securities and derivatives instruments, among others. This long experience has given the BIS the technical expertise to set up and run the necessary infrastructure. Additions become more cost-effective.

The second, critical, strength is that the BIS houses the relevant authorities for statistical governance, notably the committees that include not just central banks but also supervisory authorities. The Committee on the Global Financial System (CGFS) – formerly known as the Euro-currency Standing Committee – and the Markets Committee (MC) – formerly known as the Committee on Gold and Foreign Exchange – have played a lead role in this area. More recently, the establishment of the Irving Fisher Committee (IFC) – a Basel-based grouping of central bank statistical experts – provides yet another mechanism that could help catalyse improvements in available statistics. And the Basel Committee on Banking Supervision (BCBS), too, has begun to play a key role.

Currently, the BIS is closely involved in several efforts to enhance available statistics. It is leading the work on 8 out of 20 of the recommendations that are being pursued under the aegis of the G20, alongside the Financial Stability Board and other international financial institutions (FSB-IMF (2009)). And it is pursuing

further additional improvements. The main ones are summarised in the accompanying table.¹³ But how do they compare with the priorities noted above?

Take property prices first: here the news is not particularly encouraging. True, the recommendations for the G20 do identify them as a priority. Moreover, a 2010 informal survey of IFC members indicates that many countries have assigned a high priority to collecting these data. But improvements remain uneven at best: while significant ones have been made over time concerning residential property prices, statistics for commercial property are lagging badly behind.

Here, the role of the BIS is necessarily limited to that of a catalyst. In particular, at the BIS, we started to collect information on property prices as far back as in the early 1990s, drawing on a mix of official and private sources.¹⁴ And we have been actively involved in formulating standards, as laid out in the handbooks for compiling residential property prices, released in 2011, and commercial property prices, still in draft form. But, in sharp contrast to the international banking statistics, the institution does not have direct access to the compilers of the data. Similarly, especially with regard to commercial property prices, national authorities themselves have so far tended to rely heavily on private sources. This is not a satisfactory state of affairs. It is to be hoped that efforts will be intensified and coordinated internationally so as to provide more reliable historical series¹⁵ and ensure greater consistency.

The news concerning core data on banking statistics is much more promising. Improvements have proceeded in a way roughly consistent with the priorities laid out above. First, at the level of banking *systems*, rather than individual institutions, efforts are under way to expand and refine the BIS international banking statistics to capture the *whole* balance sheet of internationally active banks on a consolidated basis and with a finer granularity. Second, these efforts are complementing consolidated balance sheet data with broadly similar information about the offices from which the corresponding banks operate outside the country of origin. Third, at the level of *individual institutions*, an international data hub has been set up at the BIS. The hub will have detailed consolidated balance sheet information for large and internationally active banks, including, for the first time, data on interlinkages on the assets and liabilities side, gathered at a higher frequency (weekly rather than quarterly).¹⁶ Finally, the BCBS has started to collect more systematic information, on both a national banking system and individual institution basis, to support the monitoring of the implementation of Basel III.

¹³ The table includes three significant improvements to the statistics not included in the text – to data on CDS, foreign exchange trading and debt securities. For a further explanation of first two sets of improvements, see CGFS (2009) and Gruić and Wooldridge (2012).

¹⁴ Judging from external requests, this has proved to be one of the most successful sets of ad hoc statistics we have ever put together.

¹⁵ In Norway, for instance, the central bank has compiled a very long time series for house prices by exploiting primary sources.

¹⁶ The identification of common exposures and interlinkages presumes that related counterparties are aggregated within an institution and classified similarly across institutions. This will be facilitated by the Legal Entity Identifier initiative sponsored by the FSB, under which parties to financial transactions will be assigned an unique identifier. See FSB (2012c).

Selected post-crisis improvements to BIS statistics

Type of data	Governing body	Data set	Target date (dissemination)	Improvement	Issues (examples)
Property prices	BIS with others	Ad hoc data collections	2011/2013 Ongoing	<ul style="list-style-type: none"> • Compilation handbooks (residential/commercial) • Enhanced coverage 	Market trends and vulnerability indicators
Banking	CGFS	IBS locational	Mid-2013	<ul style="list-style-type: none"> • Identification of counterparties (sectors and residence) by nationality and location of banks' offices • Domestic currency positions vis-à-vis residents • Finer currency breakdowns 	<ul style="list-style-type: none"> • Transmission of funding shocks across countries • Cross-currency funding mismatches • Analysis of international operations based on total balance sheets
		IBS consolidated	Mid-2014	<ul style="list-style-type: none"> • Domestic assets, structure of liabilities and capital measures 	<ul style="list-style-type: none"> • Analysis of exposures scaled by capital and of funding risks
		IBS locational and consolidated	Mid-2014	<ul style="list-style-type: none"> • Finer sectoral and maturity breakdowns 	<ul style="list-style-type: none"> • Maturity mismatches
	Data Hub Governance Group	Systemically important banks (SIBs) consolidated (bank-level)	Not applicable	<ul style="list-style-type: none"> • (Finer) bilateral counterparty exposures • Bilateral funding dependencies • Sectoral and country exposures 	Interconnectedness and common exposures of large bank
	BCBS	Impact studies (national banking systems)	Ongoing	<ul style="list-style-type: none"> • Asset and liability features 	Monitoring of Basel III implementation
		SIBs (bank level)	2015	<ul style="list-style-type: none"> • Asset and liability features 	Higher loss absorbency capacity for SIBs
Other OTC derivatives	CGFS	Credit default swaps	2010	<ul style="list-style-type: none"> • Finer counterparty breakdown and addition of index products 	Monitoring of credit risk transfers
			2011	<ul style="list-style-type: none"> • Features of underlying debt 	
FX markets	MC	Triennial Survey	Late 2013	<ul style="list-style-type: none"> • Finer counterparty breakdown and broader coverage of offshore turnover of non-major currencies 	Activity in FX markets
Securities markets	CGFS	Debt securities	2012	<ul style="list-style-type: none"> • More consistent breakdowns of issuance (eg international/ domestic) 	Trends in debt securities markets
Credit	BIS	Credit to the private non-financial sector	March 2013	<ul style="list-style-type: none"> • Long and more consistent series with sectoral breakdowns 	Market trends and vulnerability indicators

IBS = international banking statistics; BCBS = Basel Committee on Banking Supervision; CGFS = Committee on the Global Financial System; MC = Markets Committee.

Taken together, these efforts lay a much sounder basis for the analysis of trends and risks in the global financial system. They are helping to map out its geography and to identify potential pressure points in ways that were simply impossible just a few years ago. That said, in order to reap the potential benefits to the full, more will need to be done in at least two areas.

The first area concerns the statistics themselves. Surprisingly, there is no effort under way to collect systematic data about the income statements of the banks covered in the previous statistics. This is unfortunate. Without this piece of data, it is simply not possible to do a proper analysis of the health and resilience of the global banking system. The BCBS is collecting some data on an ad hoc basis as part of its monitoring work. But the only sources of publicly available information on individual banks that might allow comparisons and aggregation are banks' own public reports and private data vendors. This information falls way short of the mark in terms of scope, consistency and ease of elaboration.

The second area concerns the *use* of the statistics. Who should have access to them? Confidentiality issues loom large. Especially when supervisory information is involved, legal and other institutional factors can constrain sharing it among national authorities, both within and across countries, let alone allowing its release to the public – even when the specific piece of information is publicly available. For example, the statistics produced by the international data hub will be shared, subject to certain restrictions, only among the supervisors providing the data. The degree to which it is desirable to disseminate various types of information needs to be assessed on its own merits. The right balance must be struck. And whenever confidentiality restrictions exist, it is essential that they are fully met. Over time, though, it would be helpful to shift the balance towards greater information-sharing and dissemination. This would allow the data to be used more effectively. And whenever they are made public, it would give market discipline a greater chance of success. For example, compared with pre-crisis arrangements, the information to be gathered by the international data hub will be shared less restrictively within the supervisory community – a very welcome change.

Conclusion

Better statistics will not prevent the next crisis. But they will definitely help policymakers and market participants better identify vulnerabilities, better monitor financial health and better manage financial strains once they emerge. Above all, they will remove an easy excuse to disown responsibility: "if only we had known....".

The recent financial crisis has opened a window of opportunity to address serious gaps in available statistics. That opportunity should not be missed. Since collecting information is costly, priorities must be set.

As regards what information to collect, I have highlighted two such priorities: better property price data and comprehensive financial information on banks' global operations on a consolidated basis, covering their balance sheets and, also, income statements. It would then be useful to complement those statistics with information on the geographical location of the operations (residence basis) and, for crisis management, as opposed to crisis prevention, purposes, with information on bilateral exposures, as long as this is sufficiently up to date and granular.

As regards how to collect the information, I have highlighted three desirable features. The process should be guided internationally, not least to ensure its consistency and overcome confidentiality restrictions. It should retain the necessary flexibility to respond to changing demands. And it should limit costs, building as far as possible on existing reporting infrastructures.

The BIS is well positioned to support these efforts, drawing on its comparative strengths. These include, in particular, its extensive track record in the collection, analysis and dissemination of international financial statistics – a core aspect of its mission – and the presence of key players for the governance of the collection, ie central banks and supervisors.

Judged against these criteria, the progress made post-crisis has been significant, but much more needs to be done. For the first time, there is a concrete prospect that we will soon have a much clearer picture of the balance sheets of banks with significant international operations. And a set of complementary initiatives can cast light on various aspects of banks' books. That said, current efforts fall way short of the mark with respect to statistics on banks' income statements and on property prices, especially for commercial property. There is, in addition, considerable scope for gradual and well considered improvements in data-sharing among the authorities and in dissemination to the public.

According to Mark Twain, Benjamin Disraeli once said: "There are three kinds of lies: lies, damned lies, and statistics." It is true that, in the wrong hands, statistics can be a powerful means of obfuscation. It is also true, as I have stressed, that it is all too easy to overestimate their power: the lens through which we examine the data is much more important than the data themselves. All statistics should come with a big health warning. But without statistics, no quantification is possible. And both ignorance and obfuscation would be even more widespread. This is as true in financial stability analysis as it is in other walks of life.

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