Data requirements for monitoring financial stability in emerging market economies

Hermann Remsperger and Bernd Braasch[1]

I. G8 initiative on local currency bond markets

I.1 Background

Market corrections in some emerging market economies in 2006 have raised concerns about the extent to which this country group has overcome its underlying vulnerabilities – in particular, currency and maturity mismatches. Moreover, this interest has been intensified by further challenges that lie ahead for financial markets in emerging market economies and some developing countries. Emerging market economies have been contributing to the financing of large global imbalances, but in the process, they are becoming more exposed to sudden shifts in the direction of global capital flows. The second challenge, and one of the most important, is the ongoing process of institutionalisation of saving and its implications. Institutional investors such as pension funds, life insurance companies and mutual funds use international diversification of portfolio investments. These factors, like global liquidity and the risk appetite of global investors, are major determinants of the development of domestic bonds in emerging market economies and developing countries.[2]

With this in mind, G7 Finance Ministers and Central Bank Governors agreed (at their meeting in Essen in February 2007) that developing local currency bond markets deserves higher political priority. At their meeting in Potsdam, G8 Finance Ministers endorsed an Action Plan on developing local currency bond markets in emerging market economies and developing countries.

The G8 Action Plan includes seven key recommendations. One is a broadening of the necessary database to underpin in-depth analysis of financial stability issues. G8 Finance Ministers have therefore asked relevant international finance institutions to identify any data gaps. According to the philosophy of the G8 Action Plan, data needs for analysing vulnerabilities are of special relevance.

I.2 Implementation report and broadening the database

Based on recommendations of the IMF, the World Bank and G7 Deputies, the G7/G8 Finance Ministers endorsed an implementation report on the G8 Action Plan in October 2007. This implementation report also has a number of implications for international initiatives on broadening the database.

With regard to the recommended broadening of the database, the following recent and planned actions are of special interest for the future work programme:

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[1] Hermann Remsperger, Member of the Executive Board of the Deutsche Bundesbank; Bernd Braasch, International Relations Department, Deutsche Bundesbank

[2] See Deutsche Bundesbank, "Bond markets in emerging market economies", *Financial Stability Review 2007*, November, pp 113–31.

(i) On the recommendation of the IMF, the Working Group on Securities Databases (WGSD) has been reconvened. The members of the WGSD are the ECB, BIS, IMF, World Bank and some central banks. The Working Group is one of the key elements for implementing the recommendations on broadening the database. At its three meetings since September 2007, the WGSD discussed a future work programme and mandatory aspects.

(ii) As a follow-up to the Committee on the Global Financial System (CGFS) report on financial stability and local currency bond markets,[3] a CGFS subgroup has made some recommendations, in particular, for broadening the securities database. These recommendations will be integrated into the broader work programme of the WGSD.

(iii) The Federal Ministry of Finance and the Deutsche Bundesbank co-hosted a G8 follow-up conference on “Bond markets in emerging market economies and developing countries – Financial globalisation, vulnerabilities and data needs” in Frankfurt in late January 2008.[4] The Irving Fisher Committee on Central Bank Statistics organised a workshop on “Challenges to improve global comparison of securities statistics” in March 2008. The results of both conferences have contributed to a further fine-tuning of the work programme of the WGSD. In the short term and working with high priority, the WGSD will produce a handbook and compilation guide on debt securities to enhance – inter alia – the international comparability of securities statistics, and on broadening this database.

(iv) The discussion up to now has also identified some mandatory problems that have to be overcome during the next few months. Members of the WGSD agreed that other identified and important data needs, particularly with regard to financial stability issues, go beyond its mandate. Both conferences reinforced the view that an intensified and regular dialogue between experts in financial stability and in statistics would appear to be necessary in order to identify future data needs. This dialogue should be focused on challenges of dynamically ongoing changes in market structures, in new instruments and transmission channels. What remains to be clarified is the extent to which established working groups can meet these important future challenges, or whether a new working group should be created. Central banks should be involved.

The IMF and the World Bank have been asked to present an annual report on progress made in all areas of the G8 Action Plan, including broadening the database. In this context, the IMF and the World Bank will organise a conference. The results of this conference will deliver further background material for fine-tuning the progress report, the assignment of tasks and the future schedule. The results of the IFC Workshop as well as the discussion in the other relevant Working Groups will therefore contribute to this planned G8 follow-up conference.

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3 Committee on the Global Financial System, “Financial stability and local currency bond markets”, *CGFS Papers*, no 28. June 2007.

4 The presentations can be found on the Bundesbank`s website: www.bundesbank.de/presse/presse_aktuell.en.php. The High Level Workshop 2007, co-hosted by the Federal Ministry of Finance and Deutsche Bundesbank, which contributed to the G8 Action Plan, you can find on the Bundesbank`s website: www.bundesbank.de/vfz/vfz_konferenzen_2007.en.php. Both conferences will be shifted to the Bundesbank website: www.bundesbank.de/international relations, which will be built up in the near future.

II. Criteria for evaluating and prioritising data needs

Priorities for broadening the database can be derived from various criteria and with different perspectives. According to the Action Plan, one of the key questions is whether, and to what extent, emerging market economies have overcome underlying vulnerabilities and what challenges lie ahead.

Identifying data needs and closing the gaps is a three-stage process: (i) Now and in the near future, the most important financial stability questions which it has not been possible to answer owing to a lack of data, will need to be evaluated, and priorities set; (ii) In a second stage, we have to evaluate how far existing data resources meet the necessities ahead and are internationally comparable; (iii) In order to contain the input for newly collected data, we have to evaluate the net effort involved.

III. Identifying data needs – several dimensions

Identifying data needs can be guided by several methodical aspects, which may result in quite different levels of data needs.[5] These various aspects beyond developing local currency bond markets are of paramount importance. We have to keep in mind that the development of local currency bond markets should be seen in the context of the whole national financial system. Moreover, these markets are also embedded in the dynamic process of financial globalisation, which changes market structures and their response pattern in the event of exogenous shocks. Against this background and in a stylised and simplified differentiation, it is possible to identify the following aspects:

- A more *static view* is concerned, for example, with the data coverage of industrial countries' local currency bond markets in comparison with that in emerging market economies and developing countries. These data are of particular relevance for gaining a broader background to the development of local currency bond markets.
- In a more *dynamic view*, the initiatives are focused – inter alia – on the process of financial innovation, the changes in market structures and responses to exogenous shocks, and the further integration of local currency bond markets into the process of financial globalisation. This refers, in particular, to data for a deeper analysis of risk exposures, vulnerabilities, the portfolio channel, new investors and the implications of new strategies. Financial markets and their structures are changing dramatically, as are financial stability issues and priorities in resulting data needs.
- Financial globalisation also implies increasing challenges for the *international comparability* of financial statistics.
- *Micro data* are of increasing importance for evaluating financial stability issues. Developing local currency bond markets has – inter alia – been seen by most emerging market economies as an instrument for enabling and facilitating a shift of external debt in foreign currency to domestic debt in local currency. In particular, most emerging market economies have developed domestic bond markets to reduce currency and maturity mismatches, which had been one of the main

[5] See Hermann Remsperger and Bernd Braasch, "Priorities in broadening the database in emerging market economies and developing countries and organisation of the future work programme", speech at the conference "Bond markets in emerging market economies and developing countries – Financial globalisation, vulnerabilities and data needs", Frankfurt am Main, 1 February 2008, Deutsche Bundesbank, *Auszüge aus Presseartikeln*, no 8, 20 February 2008, pp 9–12.

determinants of the financial crises in emerging market economies. There is good data coverage for analysing these financial distortions on a macroeconomic level. But recent financial crises have shown that sectoral developments are increasingly important. We need a better data coverage beyond macroeconomic levels; this is especially true considering the shift of risks from the financial sector to the household and corporate levels.

All initiatives in this field are important. But with regard to changing risk exposures, vulnerabilities, changes in financial market structures and transmission channels, it seems necessary to give higher priority to initiatives that could be classified as having a more dynamic view and better coverage with micro data. This is also one of the clearest results of current financial market tensions.

IV. Challenges ahead

Developing financial market statistics and broadening the database should be guided by the challenges ahead and a containment of efforts for collecting new data. According to the philosophy of the Action Plan, the main challenges ahead are to take a closer and deeper look into the dynamically changing financial market structures and their implications for the changing risk exposures and vulnerabilities. Within this framework, only a few aspects can be highlighted, which were reiterated at the conference in Frankfurt in late January 2008:

(i) Financial globalisation and its implications for changing market structures and response patterns in the event of exogenous shocks are one of the key challenges for broadening the database. Transmission channels for financial disturbances, contagions and spillovers are changing tremendously. The ongoing integration of financial markets heightens the impact of shocks.[6] Empirical studies and continued research in this field are of increasing importance. Inter alia, the Bank of England's "New approach to assessing risks to financial stability" can provide fruitful guidance.[7]

(ii) Increasingly, key financial indicators of emerging market conditions are being influenced by global factors, such as global liquidity and the risk appetite of international institutional investors. For example, during the past few years, about 50% of the variance of the spread level – which is becoming increasingly important for the transmission of financial market effects to the real economy of selected emerging market economies – can be explained by these factors.[8] Moreover, these

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[6] See Jürgen Stark, "Main challenges for monetary policy in a globalised world", speech at the conference "Monetary policy in Sub Saharan Africa: Practice and Promise", Cape Town, 28 March 2008, *BIS Review*, 35/2008, pp 18–27.

[7] See Andrew Haldane, Simon Hall and Silvia Pezzini, "A new approach to assessing risks to financial stability", Bank of England, *Financial Stability Paper*, no 2, April 2007. Inter alia, this publication can provide fruitful guidance: "A first step towards assessing the significance of vulnerabilities is to develop a better understanding of the ways in which they affect the functioning of the financial system. What are the potential shocks that could trigger the vulnerability? Which parts of the financial and non-financial sectors would be affected initially? What second-round feedback and interaction effects between the real economy and financial system, or between financial sector participants, might be set in place? And how, ultimately, would the combined effects of the various transmission channels affect UK financial system stability? Answers to these questions are fundamental to a clear and consistent understanding of the nature of each vulnerability and the risk it poses to the system." (p 4)

[8] MG Rozada and EL Yeyati, "Global factors and emerging market spreads", Inter-American Development Bank, Research Department, Working Paper no 552, May 2006.

transmission channels are proving to have an increasingly influential role in the real economic sphere.[9] In general, we should enhance our knowledge of what this dynamically ongoing process means for the stability of local currency bond markets and the financial systems of emerging market economies and developing countries as a whole.

(iii) One of the main future challenges is the dynamic process of the institutionalisation of saving. Without any doubt, globally active institutional investors are enhancing the efficiency of the international allocation of capital and risks and are one of the main driving factors behind stronger world economic growth in recent years. This dynamic ongoing process enhances the financial market channel for the transmission of shocks across different financial markets and into the real economy.[10] Among top priorities for a better and deeper understanding of the changing response patterns, including local currency bond markets, are:

- Better data on national and international investors' behaviours
- Better quality of CPIS data
- Better data on non-bank financial corporations portfolio flows and shifts in their portfolios across countries and markets, which are critical for the understanding of changing risk exposures and transmission channels.

(iv) Financial globalisation is accompanied by a faster development and dissemination of financial innovations or instruments. There seems to be a need to enhance empirical work on the extent to which these financial innovations are changing the risk exposure and vulnerabilities of financial markets in emerging market economies and developing countries. This is all the more so as, besides a number of benefits, "these developments also had two negative side effects, namely a significant increase in leverage and unprecedented growth in the marketisation of financial instruments."[11]

(v) Moreover, significant financial market risks have been transferred to the household sector, which has no sophisticated risk management system to evaluate these risk exposures. This development magnifies the necessities of broadening the database for balance sheet approaches. Here, data reliability is highest for the financial sector. Therefore, these data provide a good coverage for evaluating, for example, currency and maturity mismatches in the financial sector. However, in the meantime,

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9 "Overall, then the recent decline of spreads is more related to risk appetite and uncertainty regarding U.S. monetary policy than is due to country fundamentals as these variables account for over the half of the decline of spreads." Kristian Hartelius et al, "Emerging market spread compression: Is it real or is it liquidity?" *IMF Working Paper*, WP/08/10, p 2.

10 With regard to the recent tensions: "There were a number of factors and mechanisms that played a role in the propagation and amplification of the market turmoil which neither we, nor other institutions, foresaw, at least not fully, notably: (i) the way various intertwined vulnerabilities would eventually combine; (ii) the speed and intensity with which tensions in one specific segment of the credit market in one country could spread so extensively to other markets and countries; (iii) the size of banks' off-balance sheet exposures to the US sub-prime related structured finance products; (iv) the activities, features and implications of new financial entities – conduits and other structured investment vehicles – that have been sponsored by banks and linked to them by liquidity commitments. Finally, it was impossible to predict the extent to which risks were transferred to market participants who were ultimately unable to bear them." Lucas Papademos, Address upon receiving the 2007 "Risk Manager of the year" Award of the Global Association of Risk Professionals, New York, 26 February 2008, *BIS Review*, 21/2008, p 25.

11 See Stark (2008,) p 22.

risks have shifted to the non-financial corporate and household sector, where balance sheet data in emerging market economies are largely non-existent.[12]

In sum, analytical research on financial market development seems still to be focused on the development of yields, asset prices and relative prices. But with regard to financial stability issues, research efforts could be enhanced to obtain a better and more timely insight into the dynamically changing transmission channels of disturbances with relevance to national and global financial stability. Taking an isolated view, we have some high-quality data on sectoral developments, but one of the main lessons of the current financial market tensions has been that "alarm bells have rung" at junctions in the network of international financial markets that had not previously been identified as critical.

V. Shortening the time lag between financial crises, identifying data needs and closing the gaps?

Against the backdrop of the current tensions, the question was raised at both conferences as to whether the time lag between financial crises, identifying data needs and closing the gaps can be shortened. This time lag is characterised by two subperiods: one potential measure to shorten the time lag between financial crises and identifying the data needs is an intensified and institutionalised dialogue about financial innovations, financial globalisation and its implications for changing risk exposures, transmission channels and resulting data needs between experts in financial stability and statistics. Another matter for further discussion is the extent to which instruments such as a Globalised Securities Database can provide a broader-based tool of available data that can be used flexibly, and at short notice, to analyse different kinds of financial instruments. In this context, one interesting question is how similar data needs and priorities are for both monetary and financial stability purposes.

Keeping these time lags short despite the rapidly changing environment of financial markets is one of the main criteria for prioritising further steps to close data gaps.

[12] "Data reliability can vary significantly by sector. In general, central bank data are most reliable, followed by data from commercial banks and other financial corporations, international investment position data, and government debt data. (...) Data on households and non-financial corporations are typically very scarce in emerging markets and in many cases are non-existent." Johan Mathisen and Anthony J Pellechio, "Using the balance sheet approach in surveillance: Framework and data sources and availability", *IMF Working Paper*, WP/06/100, 2007, p 28.