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Guest Commentary

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Barry Eichengreen
Revised May 2008

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Rationale and Obstacles to the Development of Bond Markets in Emerging Economies

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There is a growing appreciation that financial development matters for economic growth.[1] The financial system contributes to economic development by enabling firms, governments, and households to manage risks, avoid having to sharply compress their spending in bad times, and invest in high-return projects that might otherwise remain beyond reach. The price signals emitted by the financial system inform investment decisions and generally guide resource allocation decisions. The financial system is also a source of discipline on managers who might be tempted to pursue private agendas in the absence of accountability to their shareholders and to assume excessive risk in the absence of having to answer to their creditors.

The bond market is a key element, along with the banking system and equity and derivatives markets, of a well-developed financial system. This is not to say that the bond market can substitute for these other components where they are inefficient or underdeveloped; however, it can complement their operation and reinforce their positive influence on economic development.

A well-developed bond market, with both government and corporate segments, can enhance the efficiency with which the financial system helps to allocate resources within the economy and buttress financial and macroeconomic stability. Most obviously, access to bond finance lowers the cost of external funding for large, transparent, reputable firms able to bypass bank intermediation by borrowing directly from the public. Rather than having to pay a bank to mobilize and concentrate the savings of households and institutions, firms can avoid this cost (measured by the spread between bank deposit and lending rates) by selling bonds directly to the public.[2] Access to bond finance also enables firms to match the lifespan of their financial obligations to the expected lifespan of their investments and better manage their risk profiles.[3] Governments undertaking large infrastructure projects can similarly match the maturity of their debt obligations with the returns on those projects by issuing bonds. What works for borrowers also works for

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[1] See Ross Levine and Asli Demirgüç-Kunt, "Finance, Financial Sector Policies, and Long-Run Growth," Policy Research Working Paper 4469, prepared for the World Bank Growth Commission by the Finance and Private Sector Team of the Development Research Group, World Bank, Washington, DC, 2008 <http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2008/01/07/000158349_20080107115116/Rendered/PDF/wps4469.pdf>. This "consensus" is in contrast to the first generation of work in modern development economics after World War II, when financial development was not seen as central to economic development. This reflected the distrust of financial markets inherited from the unstable 1920s and 1930s, which led to the tight regulation—bordering on suppression—of financial transactions, even in the advanced countries, for years thereafter.
[2] Issuing bonds will generally require enlisting the services of an investment bank to underwrite and market the issue, but there still presumably is a cost saving, especially for large firms able to exploit the associated economies of scale.
[3] Assuming, that is, the existence of a fairly advanced bond market with a benchmark yield curve and a range of liquid maturities.

lenders: bonds constitute a high-quality and potentially liquid savings vehicle for retail and institutional investors.

The existence of a bond market will also tend to enhance the efficiency of the banking system by providing competition for providers of bank loans. Much as competition from foreign banks ratchets up the pressure on domestic banks to raise efficiency or lose market shares, competition in the bond market forces domestic banks to find ways of lowering their own funding and administrative costs to avoid losing their large-firm customers. A bond market will thus be particularly valuable in settings where banking is imperfectly competitive and banks earn monopoly rents.[4] Of course, this also means that there may be a need for active public sector intervention to jump-start the bond market: studies often find that bond markets are slow to develop in countries where banking is highly concentrated, as if banks resist efforts to introduce this additional source of competition.

Development of a bond market is also likely to encourage development of other components of the financial system. Bonds meet the need of insurers and pension funds for long-term assets and thus promote the development of these vehicles, which provide valuable financial services to firms and households. In turn, the development of these complementary entities feeds back positively on the bond market, insurance companies, and pension funds contributing to the diverse investor base needed for a liquid market. A similar case can be made for securitization: a bond market is a prerequisite for developing markets in interest rate swaps and futures, credit default swaps, and other derivative securities useful for unpacking and spreading interlinked risks, while securitization—once under way—can feed back positively to the growth and liquidity of the underlying bond market.[5]

Much of the impetus for fostering bond markets derives from the observation that a more diverse financial system, including both banks and securities markets, may be more stable in the face of shocks. The very fact that banks and bond markets are structured and organized differently means that they are affected differently by the same shocks. They tap funding differently and provide credit to different borrowers. Their contracts and covenants specify different terms. This diversity should be a source of resiliency in the face of shocks, in the same way that a diversity of crops protects a farmer against weather and rainfall shocks. Greenspan referred to this as the “spare tire” rationale for promoting bond markets.[6]

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[4] At the same time, where it is the government that issues bonds and where it force-feeds these to the banks, the authorities may be loath to deregulate the banking system and expose domestic intermediaries to serious competitive pressures.

[5] Recent experience, from the 1998 Long-Term Capital Management Crisis to the current Subprime Crisis, reminds that securitization is a two-edged sword. Where derivative securities are complex and nontransparent, they may aggravate information and agency problems in financial markets and place stability at risk. (The implications of the Subprime Crisis are the subject of another note in this series.)

[6] Alan Greenspan, “Global Challenges,” remarks to the Financial Crisis Conference, Council on Foreign Relations, New York, July 12, 2000. Recent experience also suggests that this argument should not be oversold. When banks have significant positions in bonds and associated derivatives or when they have extended guarantees or credit lines to other entities with positions in those securities, the spare may go flat at the same time as the other tire. This may be a particular problem in emerging markets, where banks are often obliged to hold bonds to fulfill capital and liquidity requirements or simply to create a captive market for government debt. A study of the validity of the spare-tire thesis in the case of the Republic of Korea is found

In particular, developing a bond market promises to enhance financial stability in economies that are excessively dependent on bank finance. While bank customers demand reasonably long-term loans, bank depositors demand liquid accounts. (Because banks operate in information-impacted parts of the economy, depositors' insistence on liquidity can be understood as a way of applying market discipline to bank management and mitigating the agency problems that would otherwise arise.) Banks are in the business of maturity transformation, which is a good thing, but maturity transformation is also a source of financial fragility. If a financial market is dominated by banks with maturity mismatches on their balance sheets, a shock to confidence that leads to a depositor run can bring the entire system crashing down. In the bond market, where analogous maturity mismatches are absent, a sharp deterioration in investor sentiment will instead lead to a fall in prices, which need not portend a financial crisis.

It is similarly argued that the existence of a bond market is stabilizing for countries on the receiving end of portfolio capital flows. In the absence of securities markets, foreign portfolio capital can flow only into the banking system. This leaves the banking system vulnerable to a foreign investor panic that causes capital flows to reverse direction.[7] In contrast, when foreign capital flows into the bond market, a sudden stop or reversal will result in a drop in prices, but it need not cause the market to seize up.

To be sure, if the bonds in which foreigners invest are denominated in foreign currency, this can render the economy more vulnerable to exchange rate shocks and discourage the authorities from moving toward greater exchange rate flexibility. Depreciation of the exchange rate, which might be desirable on other grounds, will then increase debt-servicing costs for bond issuers—both firms and governments—in the worst case threatening them with bankruptcy. Countries in this position thus find themselves saddled with volatile capital flows and rigid exchange rates, which is the worst of all combinations from the point of view of financial stability. The solution is to promote not just local bond markets but also local currency bond markets.

Local currency government bonds have the potential to play a catalytic role in the larger process of market development (that is, government bond markets can have positive spillover effects for corporate bond markets). Corporate bonds, which vary in their risk characteristics, need to be priced relative to a standard, and a government bond of the same maturity traded in a deep and liquid market provides the obvious benchmark. By issuing a range of standard maturities, building an efficient market infrastructure, and attracting a diverse investor base as ways of ensuring market liquidity and continuous price revelation, the government can thus help to jump-start issuance and trading of corporate bonds.[8]

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in Todd Gormley, Simon Johnson, and Changyong Rhee, "Corporate Bonds: A Spare Tire in Emerging Markets?" unpublished manuscript, Washington University (in St. Louis), International Monetary Fund, and Seoul National University, January 2008.

[7] This is true whether or not the foreign deposits are denominated in domestic or foreign currency—although the central bank in its role of lender of last resort will have more options if those foreign deposits are domestic-currency denominated.

[8] In addition, a deep and liquid market in government bonds also enhances the conduct of monetary policy. Bill and bond yields provide a more efficient alternative for regulating domestic money and credit conditions than changing bank liquidity and reserve requirements (which is a relatively blunt instrument) or issuing directives regarding lending practice to the banks.

However compelling the case for developing bond markets, the practice is challenging.[9] Supplementing bank intermediation with bond finance presupposes significant enhancement of the information environment. Banks specialize in lending where publicly available information is imperfect and incomplete, using their long-term relationships with clients to gather proprietary information on credit risk.[10] Bondholders, in contrast, tend to maintain an arm's length relationship with the borrower and rely on regulators and rating agencies to provide for the disclosure and interpretation of corporate financial information, respectively. This means that the institutional prerequisites for a liquid bond market are considerable. They start with a securities market regulator to ensure corporate financial disclosure and guarantee market integrity and confidence against insider trading and price manipulation. They extend to a self-organized association of securities dealers to police dealer practices and ensure adequate transparency of trading activity.[11] They also include a rating agency with local knowledge. They entail entities prepared—for a price—to attach credit guarantees for issues at the low end of the credit quality spectrum, thus enhancing the marketability of such securities.[12]

Hiring an internationally recognized auditor, obtaining a rating, establishing a relationship with an underwriter, and securing a guarantee are expensive; this means that there are significant fixed costs and a minimum feasible size of bond issues, which may be beyond the reach of all but the largest firms.[13] Such costs constitute an obstacle to bond market development in small economies.[14] Encouraging foreign issuance and foreign investor participation is a way of relaxing this constraint, but it requires removing capital account restrictions, something that needs to be carefully sequenced with other economic and financial reforms. Building an efficient and reliable platform for transactions in debt securities also entails significant up-front costs, and no individual issuer will be in a position to capture the returns. And even if an efficient bond market

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[9] An observation leading some observers to argue that building a local bond market is even more difficult than building a local equity market. See, for example, Alison Harwood, "Building Local Bond Markets: Some Issues and Actions," chapter 1 in *Building Local Bond Markets: An Asian Perspective,* ed. Alison Harwood, 1–38 (Washington, DC: World Bank, 2000).

[10] Thus, De Fiore and Uhlig find that the higher share of bank (relative to bond) finance in Europe (compared with that in the United States) is the result, in part, of the lower availability of public information about firms' creditworthiness. See Fiorella De Fiore and Harald Uhlig, "Bank Finance versus Bond Finance: What Explains the Differences between the US and Europe?" Discussion Paper 5213, Centre for Economic Policy Research (CEPR), London, September 2005.

[11] Thus, in the United States, dealers in corporate bonds are required to report all over-the-counter (OTC) transactions to the Trade Reporting and Compliance Engine (TRACE) operated by the National Association of Securities Dealers (NASD). Emerging markets have established similar systems, but in a number of cases these initiatives have been limited to transactions among dealers.

[12] Such entities can include monoline bond insurers, diversified financial institutions, and public guarantee agencies. See Gyutaeg Oh and Jae-Ha Park, "Fostering Asian Bond Markets Using Securitization and Credit Guarantee," unpublished manuscript, Korea Fixed Income Research Institute and Korea Institute of Finance, March 2003 < http://www.mof.go.jp/english/if/seminar/20030301e.pdf>.

[13] Securitization can be used to bundle claims on smaller firms and thus enhance their access to debt markets, but must be used with caution—something that has been highlighted by recent experience in the United States. (See also footnote 5 above.)

[14] See, for example, Julio de Brun, Néstor Gandelman, Herman Kamil, and Arturo C. Porzecanski, "The Fixed Income Market in Uruguay," in *Building Bond Markets in Latin America,* ed. Eduardo Borensztein, Kevin Cowan, Barry Eichengreen, and Ugo Panizza (Cambridge, MA: MIT Press, forthcoming).

infrastructure is created, investors may not wish to participate in that market unless other investors participate; without a critical mass of participants, the market will lack liquidity, and investors will not be able to undertake transactions without moving prices against themselves.[15]

Thus, significant coordination problems and other obstacles to the development of bond markets plausibly exist, to be addressed by governments and multilaterals. This, in a nutshell, is the rationale for initiatives from ASEAN, the BIS, the G8, the IADB, and the IMF, among others, to foster the development of bond markets in emerging economies. It is similarly the rationale for the World Bank's Global Emerging Markets Local Currency Bond (Gemloc) initiative.

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[15] Similarly, market liquidity is enhanced when multiple dealers make secondary markets in particular issues. In practice, however, there tends to be only one or (at most) two dealers in many issues in emerging markets. Liquidity problems such as these are the focus of Malcolm Knight, "Promoting Liquidity in Domestic Bond Markets," keynote speech to the Government Borrowers Forum, St. Petersburg, May 23–25, 2006.