



Tenth Annual
OECD/World Bank/IMF
Bond Market Forum

Secondary Market Liquidity in Domestic Debt Markets

April 29–30, 2008
Washington, D.C. • IFC Auditorium

The views expressed in these papers and presentations are those of the author(s) only, and the presence of them, or of links to them, on the IMF website does not imply that the IMF, its Executive Board, or its management endorses or shares the views expressed in the papers or presentations.





SECONDARY MARKET LIQUIDITY IN DOMESTIC DEBT MARKETS

KEY POLICY CONCLUSIONS

**Tenth Annual OECD/World Bank/IMF Global Bond Market Forum
April 29–30, 2008
Washington D.C.**

VERSION: 30 July, 2008

Correspondence regarding this report may be addressed to:

OECD: Mr. Hans J. Blommestein (hans.blommestein@oecd.org)

World Bank: Ms. Alison Harwood (aharwood@ifc.org) and Mr. Phillip Anderson (prdanderson@worldbank.org)

IMF: Ms. Ceyla Pazarbasioglu (cpazarbasioglu@imf.org)

Tenth Annual OECD-World Bank-IMF

Global Bond Market Forum:

Secondary Market Liquidity in Domestic Debt Markets

Summary

The Tenth OECD/World Bank/IMF Annual Global Bond Market Forum highlighted that liquidity is a complex concept with different dimensions – micro liquidity vs. macro liquidity, market liquidity vs. funding liquidity, endogenous vs. exogenous liquidity, and so on. Relative liquidity (including ‘liquidity freezes or squeezes’) can best be explained by focusing on the *market’s institutional structure*, in particular the architecture of electronic trading platforms, the importance of OTC trading, the nature and width of the investor base, disclosure requirements, valuation methods, the role of primary dealers including market-making requirements or conventions, tax factors, and the role of issuers of government bonds and other fixed-income instruments in primary and secondary markets. The rapidly changing investor base with sizable growth in assets under management and a decline in their home bias, also has significant implications for liquidity. Emerging markets facing liquidity management challenges from capital inflows is largely symptomatic of the lack of a broader and deep domestic capital markets. Indeed, the current turmoil in mature credit markets has highlighted that EM policymakers and market participants should aim to foster a strong institutional structure for local currency bond markets.

The Tenth OECD/World Bank/IMF Annual Global Bond Market Forum was held on 29–30, April 2008 in Washington. The forum, which was jointly hosted by the OECD, the World Bank, and the IMF, was attended by more than 100 delegates from both OECD and non-OECD countries including debt managers, central bankers, securities regulators, and representatives from the private sector. A key objective of this annual forum is to create awareness of the major issues in developing sound policies for managing public debt and developing government bond markets. It allows participants to get better acquainted with emerging international practices on specialized topics that benefit debt managers and debt market practitioners in both mature and emerging markets (EMs).

Secondary Market Liquidity in Domestic Debt Markets

The Impact of Different Market Structures and Policies on Liquidity

1. **A key policy problem is that liquidity is not very well-understood** in terms of a robust link between theory (analytics) and data. Liquidity is a rather complex concept with different dimensions—micro liquidity vs. macro liquidity, market liquidity vs. funding liquidity, endogenous vs. exogenous liquidity, and so on. Moreover, liquidity is distributed in complex ways within an ultra-connected financial landscape. These difficulties make it hard to measure liquidity in a straightforward way, especially for relatively illiquid bonds, and various proxies that are being used. Against this backdrop, the most promising direction for identifying the drivers of relative liquidity within and across markets (including extreme events such as ‘liquidity freezes or squeezes’) is to focus on the *market’s institutional structure*, in particular the architecture of electronic trading platforms, the importance of over-the-counter-trading, the

nature and width of the investor base, disclosure requirements, valuation methods, the role of primary dealers (PDs) including market-making requirements or conventions, tax factors, and the role of issuers of government bonds and other fixed-income instruments in primary and secondary markets.

2. **Liquidity in cash and derivatives markets can therefore vary due to differences in market structures, also for the most developed government bond markets.** The cash government bond market is the most liquid in the U.S., with cash instruments used for pricing reference and as hedging tools. In contrast, the futures market for government bonds is the most liquid segment in Europe. Swaps and German Bunds have a shared role in pricing benchmarks and the futures market, while the futures market is the main tool to short the market. Japan's secondary market, however, is less liquid than one would expect on the basis of the size of its market.

3. **Liquidity in the secondary market can be affected by size, heterogeneity of instruments, fragmentation and lock-in effects.** There may well be minimum thresholds for the size of both issuance and the market to ensure the liquidity premium. However, size alone cannot be used as a reliable liquidity measure since it does not incorporate ageing-induced declines in liquidity, resulting in the familiar spread between on-the-run government securities and off-the-run ones. A wide diversity of instruments is generally not conducive to creating and maintaining liquid markets. The number of electronic networks that do not display liquidity ('dark pools') has grown strongly, especially for equity. These fragmented trades in dark pools are popular because buyers and sellers (in particular big institutional investors) are matched anonymously, while orders can be bigger than those done on public exchanges. Dark liquidity issues are further amplified by a fragmented market structure with a multiplicity of issuers (e.g., Eurozone), different electronic trading platforms and lock-in-effects by investors.

4. **The shift to electronic trading platforms in mature markets has contributed to improving liquidity and price transparency but with caveats.** Electronic platforms have eased access and reduced cost of trading. The experience so far in the U.S. and Europe show that electronic platforms have a lower adaptability to extreme volatile conditions while also complex trading strategies and off-the-run trading are more difficult to accommodate than via conventional trading channels.

5. **Policies undertaken by debt managers can play a significant role in facilitating or supporting market liquidity.** There is a clear role for debt management offices (DMOs) to the extent liquidity can be seen as a public good. For example, in Japan, a relatively low turnover ratio and wide bid-offer spreads indicate that the secondary market, relative to its size, is not very liquid. The authorities have taken several initiatives to enhance liquidity, including "auctions for enhanced liquidity" and "buy backs."

6. **Debt managers are generally rewarded with a liquidity premium if they can provide predictability of supply through a set auction schedule and transparent decision making, benchmark issuance, while promoting a network of dedicated dealers and a broad investor base.** While some debt managers follow opportunistic issuance, the experience in OECD markets shows that lower borrowing costs can be achieved over the medium term through a consistent supply of liquid securities absorbed by a broad investor base

of domestic and foreign investors. In most countries liquid secondary markets are based on the following cornerstones: (i) concentrating issuance in critical tenors; (ii) well-functioning repo markets and ability to short issues; (iii) plain vanilla derivatives markets; (iv) facilitating investor demand and price discovery; and (v) supporting a network of primary dealers.

7. **Primary dealers provide an important dimension to liquidity provision but there is a dichotomy in the approach in how DMOs interact with PDs in enhancing liquidity.** The main objective of the DMOs has been to reduce uncertainty for the market makers. The business model in the U.S., Germany as well as in Japan, is based on the philosophy that DMOs have a hands-off relationship with PDs. For example, the U.S. Treasury, through its issuing agent (the Fed of New York) has a hands-off approach with all its primary dealers where it sees its task ending with the conditions of primary issuance and is therefore only concerned with on-the-run securities. That said, the current credit-cum-liquidity crisis has shown that the Fed may have to play a more proactive role vis-à-vis PDs in times of great market stress. In contrast to a general hands-off approach, several DMOs (e.g., in the EU) play a more activist role by giving PDs direct incentives or privileges in return for market-making (MM) obligations. This approach may reflect the difficulties faced in a fragmented and/or a small size of the market. In some jurisdictions, however, the effectiveness of MM-obligations is under discussion. This debate is in part fuelled by the ongoing credit crisis and may lead to changes in the current market infrastructure. However, in all cases, by being the intermediary of the DMO (or the Fed in the case of the U.S.), PDs do have a more privileged access to trading and information.

8. **The case of smaller DMOs provide an issuer's perspective on why a PD system with direct incentives can be successful in creating better liquidity than would be expected by market size alone.** For example, in Sweden this has been achieved by committing to issuer support through securities lending in the government bonds to PDs by the DMO. This active support of the Debt Office and its role in reducing uncertainty has fostered market making, interbank market, broker trading, pricing, and risk management. Furthermore, the DMO has concentrated on the funding of a few benchmarks, (obligatory) participation in electronic interbank trading, sound risk management and adequate price transparency and discovery.

9. **In the EM universe, several local government bond markets provide interesting examples how good levels of liquidity by international standards can be attained through reforms in its market micro-structure.** For example, in Mexico local instruments accounted for 28 percent of local markets turnover of all local emerging market trading, while Brazilian and South African local debt activity accounted for 15 percent and 11 percent, respectively. Of interest in this context is that the Mexican Ministry of Finance has made improvements in the microstructure of the local market that included: (i) modification of auction schedule; (ii) modification of Bond reopening scheme; (iii) new regulation for repo and securities lending markets; (iv) introduction of Strips Program for government securities; (v) exchange program for fixed rate bonds; (vi) exchange program for inflation linked bonds and; (vii) buyback programs for government securities. More in general, several EMs made notable improvements in the following key areas: (a) legal and regulatory framework; (b) clearing and settlements; (c) price transparency ; and (d) market making programmes.

10. **Securities lending facilities have had a positive liquidity impact on government bond market.** For example, recent efforts by several countries to develop a securities lending market for government securities have shown positive results. Local investors' understanding of the importance and profitability of securities lending has improved. An increasing number of pension funds and insurance companies have started to lend.

Key Challenges for Strengthening Liquidity and The Way Forward

11. **A key challenge is a better understanding of liquidity.** The concept of liquidity is complex and not well understood, although empirically it is often related to a single dimension such the ability to trade a security with minimal impact on its price. While there are clear differences between funding and market liquidity, they are mutually reinforcing. The issue of liquidity risk has become more complex, especially with liquidity problems appearing during the credit crisis in unexpected ways. Another complicating factor is that issuers, policymakers and investors may have different perspectives on liquidity. Nevertheless, DMOs and market makers have important potential roles in enhancing market liquidity in the government bond markets, be it directly or indirectly.

12. **But, there is a convergence of views how to enhance liquidity by strengthening the institutional structure of bond markets.** The key building-blocks of a liquid market are: (i) sound institutions and macro policies (including the banking system and exchanges, as well as macro-financial-, debt management- and fiscal policies); (ii) an efficient and robust infrastructure (payment system, trading, settlement, and clearing); (iii) a well-functioning repo market; (iv) adequate information flows; and (v) a diversified investor base.

13. **The current turmoil in mature credit markets has highlighted the importance for EM policymakers and market participants of a strong institutional structure for local currency bond markets.** On the funding side, EM countries that have been able to diversify their funding base and have actively used liability management, have seen relatively lower volatility and have enjoyed continued market access at competitive spreads. Countries that continue to develop deep and liquid local bond markets are likely to be better placed to sustain shocks from the risks of a protracted global credit crisis. Many EM countries like Brazil, Mexico, Poland, South Africa, Thailand and Turkey have already made marked progress in implementing reforms to foster the development of local currency bond markets. Secondary market liquidity has improved in countries that have provided an enabling environment for local bond market development. The development of repo and derivatives markets has been an important step in countries like Mexico, Brazil and Korea. E-platforms in some of these countries have helped in price discovery.

14. **The rapidly changing investor base with sizable growth in assets under management and a decline in their home bias, has significant implications for liquidity.** The more diversified investor base in EM also underscores the importance of understanding their behavior by EM policymakers. Hedge funds behave in a different way compared to real money investors. For example, hedge funds often prefer to access EM via offshore derivatives instruments. This helps local players arbitrage local and offshore markets, while diverting some of the trades abroad. Whether or not this helps or hinders liquidity is an open question. The Mexican experience indicates that this does help the liquidity in the local market. However,

deleveraging by hedge funds can often mean that they sell the most liquid instruments, which can result in a downward spiral in asset prices.

15. **Liquidity management challenges posed by capital inflows to EM are symptomatic of the lack of a broader and deep domestic capital markets.** The development of corporate bond markets in EM can enhance the absorptive capacity of the economy while providing a more diversified funding source for corporates. There could be emphasis on building the infrastructure asset class including public-private partnership that could bring more assets to the market. Furthermore, securitization and other modes of credit enhancements can help broaden the asset base of good quality paper that investors may invest in. Judiciously relaxing regulatory constraints on domestic institutional investors such as pension funds can also alleviate liquidity pressures.