South African Reserve Bank

Principles for developing local currency bond markets

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Overview

- 7 pillars for developing Local Currency Bond Markets
  - Macro economic environment
  - Money market
  - Primary market
  - Investor base
  - Secondary markets
  - Custody and Settlements
  - Debt market regulation
- Essential building blocks versus facilitators for efficiency
- A quick overview of the South African experience

What is a well-developed LCBM?

- The UK's Fair and Effective Markets Review (2015) defined an effective market as follows:

"Effective FICC markets are those which also: (i) allow end-users to undertake investment, funding, risk transfer and other transactions in a predictable way; (ii) are underpinned by robust trading and post-trade infrastructures enabling participants to source available liquidity; (iii) enable market participants to form, discover and trade at competitive prices; and (iv) ensure proper allocation of capital and risk."

- They also defined fair markets, but this will not be covered here

7 pillars of market development

- The World Bank (2007) lists six pillars*
  - Money market
  - Primary market
  - Investor base
  - Secondary markets
  - Custody and Settlements
  - Debt market regulation
- …but in addition
  - Macroeconomic environment

*** The following slides draw heavily on the World Bank's "Developing the Domestic Government Debt Market: From Diagnostics to Reform Implementation"**

Money market development

- An efficient money market is a prerequisite for a well developed bond market
- Three conditions for developed money markets:
  - Monetary policy plays a key role and must use transparent market-based implementation methods instead of direct methods (e.g. reserve requirements, credit ceilings, controlled interest rates)
  - Adequate government management systems that provide reliable estimates of future government cash flows and forecasts of aggregate bank liquidity
  - Banks and other financial institutions with incentives to develop efficient liquidity and risk management services

Money market development (continued)

- Other factors to consider:
  - Clear market conventions (pricing formulas, information, transparency, documentation, etc)
  - Strong and well-regulated banks support interbank lending
  - Robust legal/regulatory structure to support repo markets
  - Credible interest rate benchmarks

Primary market principles

- Clear, transparent, and effective debt and cash management strategies by the government
- Progressive phases of issuance methodology:
  - Public subscriptions and retail distribution networks
  - Wholesale market-based mechanisms (e.g. auctions)
  - Tapping existing issues, buybacks and switches
- Multi-price auctions are suitable in less developed markets to encourage participation while single-price auctions are appropriate in more advanced markets
- Varied models for access to auctions
- Transparent process with timely published results
- Coordination between central bank and government on the instruments used for monetary policy and funding

Investor base features

- A well-functioning bond market requires different types of investors to ensure liquid secondary markets:
  - Commercial banks: Typically want short-dated assets but can also have demand for long-dated assets if there is a well-developed repo market. The longer the maturity, the greater the need for good risk management
  - Non-financial corporates tend to place funds in short term instruments
  - Retail can have strong demand for inflation-protected assets

Investor base features (continued)

- Contractual savers (pension funds, life insurance, ect) have natural demand for long-dated debt. This market should: 1) not be treated as a captive source of funding through prescribed assets, 2) constitute of public and private sector participation which is not dominated by small players, 3) be mature in their development (rapid growth leads to buy-and-hold strategies), and 4) have adopt sophisticated asset allocation strategies and professional asset management practices
- Mutual funds behavior sits between retail investors and long-term savers
- Foreign investors

Efficient secondary markets

- Requires diversified participants
- Benefits of primary dealership is greater when there are many investors
- Large benchmark standardized bond issues
- Permissible transactions should include spot, repo, forward, short-selling, and securities lending. It could also include switches, strips, futures and options.
- Standardised conventions for pricing, trading units, settlement, etc
- It can be a quote driven market or an order driven market or a hybrid. Government bonds tend to be quote driven

Efficient secondary markets (continued)

- Obligatory trading via exchanges can introduce inefficiencies
- Transparency in pre-trade price discovery (though there is a trade-off between transparency and liquidity at times) and post trade
- There must be adequate prudential, trading, and conduct regulation of market participants
- Interdealer brokers an add transparency while retaining anonymity of dealers

Secure custody and settlement

- Efficient custody and settlement critical due to large transaction volumes
- Bond and money markets are very sensitive to cost structure
- Delivery-versus-payment an essential component to eliminate principle risk
- Pre-settlement risk is avoided through speedy confirmation of trades
- Rolling settlement cycles reduce time to settlement
- Securities lending and repo markets mitigate risk of settlement failure

Secure custody and settlement

- Settlement risk is reduced through Central Securities Depositories which allow for the dematerialization of script. They also support the introduction of DvP.
- Operational risks must be minimized through efficient controls, contingency planning, etc

Debt market regulation

- Must achieve fair, efficient and transparent markets by discouraging manipulation, unfair trading practices, and equitable access
- Must reduce systemic risk through adequate capital requirements and effective internal control systems
- Investor protection
- Clear and well regulated disclosure requirements that adhere to global standards
- Appropriate tax treatment
- Clear and fair bankruptcy legislation
- Legal/regulatory prescriptions should not create captive investors as this will reduce liquidity

Macroeconomic environment

- Aldegan et al found amongst others in their empirical study of bond market development in Sub-Sahara Africa that the following matter for bond market development:
  - The size of the economy
  - Per capita GDP
  - Perceptions of corruption
  - Efficiency and reliability of regulation
  - Stability and level of interest rates
  - Volatility of the exchange rate
  - Savings is a key determinant

Defining priorities

- Eichengreen (2008) introduces the concept of differentiating between reforms that do not have ’side effects’ and those that do
- He proposes prioritizing those that do not have side-effects and recommends implementing them independently
- Those with side effects must be implemented as part of a carefully sequenced reform agenda
- A complementary process is to identify the reforms that are ‘essential building blocks’ and those that act as facilitators of efficiency

Essential building blocks within the 7 pillars

- Money markets
  - Central banks use market based open-market transactions and should not destabilise markets
  - Good cash management by government
  - Clear market conventions
  - Well-developed repo market
  - Well regulated banking sector
- Primary markets
  - Transparent and predictable issuance process
  - Well defined debt management strategy
  - Coordination on use of instruments between central bank and government

Essential building blocks within the 7 pillars (cont.)

- Investor base
  - Multiple market sectors with competition within each sector to ensure varied motivation for participation in the primary and secondary markets
- Secondary markets
  - Benchmark issues across the yield curve
  - Ability to trade spot, forward, short sell, and repo
  - Standardised conventions
  - Transparency in pre- and post-trade price discovery
  - Adequate regulation of market participants and behaviour

Essential building blocks within the 7 pillars (cont.)

- Custody and settlement
  - Delivery versus payment
  - Low cost structures
  - Central Securities Depository
- Debt market regulation
  - Disclosure requirements
  - Clear conduct regulations
  - Fair and transparent bankruptcy legislation
- Macroeconomic environment
  - Stable, transparent and prudent policies
  - Small economies should consider a regional approach to market development

Coordinated national effort

- Developing capital markets requires a coordinated approach that involves many different role players
- Domestic circumstances will dictate the key priorities and the sequence of events
- Or as the World Bank (2007) says, there is a:

"…need for tailoring policy advice and reform programs to the specific requirements of each country and to the level of development of each country's financial system. "

The South African experience
1970/80s — Unstructured market

- Issuance in domestic bond market was dominated by government and semi-government debt
- NT issued bonds at par, periodically when needed, on an open-ended tap basis
- No benchmark bonds or market rates existed, very little transparency
- SARB initiated establishment of the Bond Market Association (BMA) – a self-regulatory organisation

The South African experience 1989/early 90s — More structure

- NT created benchmark bonds across the yield curve in order to improve liquidity through buy backs and consolidation of smaller issues
- Transparency improved with information about the borrowing requirement, maturity structures & new instruments made available
- Establishment of NT Tax and Loan accounts
- SARB acting as market-maker – improving the liquidity and marketability of government bonds
- SARB a leading participant in the bond derivatives market

The South African experience
Mid/late 90s – formalising the bond market

- BMA was granted an exchange licence in 1996 and transformed into the Bond Exchange of South Africa (BESA), which was taken over by JSE in 2009
- BESA adopted the G30 recommendations on clearing and settlement and established the Universal Exchange Corporation (UNEXcor) Sept 1994
- Start of immobilisation and dematerialisation of all equity, bonds and most money market instruments
- Settlement reduced from every 2nd Thursday to T + 3
- April 1998, 12 primary dealers appointed (9 currently). SARB's role reduced to conducting auctions on behalf of the NT

The South African experience
Mid/late 90s – formalising the bond market

- BESA and the Actuarial Society of South Africa (ASSA) launched 3 total return indices, i.e Govi, Othi and Albi
- Inflation-linked bonds: introduced in 2001 and by 2005, there were 4 ILBs in issuance – total outstanding amounted to 9% of total local currency government debt and estimated at 22.8% for 2017/18
- By 2006, a range of indices (not only bond) were released to provide the market with a tool to measure the performance of the credit market, and its portfolio construction

The South African experience
Money market initiatives

- Structured operational coordination between SARB/NT via SCBFM/FMS since 2007 and since 2015, regular cash-coordination meetings between FMD and NT
- SAMOS introduced in March 1998—RTGS and DvP
- Since introduction of repo-based refinancing system in March1998, regular refinements to enhance money market (including interbank)
- Before March 1998, SARB conducted repos/carries for liquidity management and bond funding
- Currently, there is a drive to initiate significant reform of reference rates and broader money market transparency

Bibliography and recommended reading

Adelegan, OJ and Radzewicz-Bak, B, 2009, "What Determines Bond Market Development in sub-Saharan Africa?", IMF Working Paper

Bank of England, HM Treasury, and FCA, 2015, "Fair and Effective Markets Review"

Eichengreen, B, 2008, "Field of Dreams:Measures for Overcoming the Obstacles to Bond Market Development", Guest Commentary published by Gemloc Advisory Services

Essers, D, Blommestein, H, Cassimon, D, and Ibarlucea Flores, P, 2014, "Local currency bond market development in Sub-Saharan Africa:A stock-taking exercise and analysis of key drivers", Institute of Development Policy and Management (IOB), University of Antwerp, Working paper

World Bank, 2007, "Developing the Domestic Government Debt Market: From Diagnostics to Reform Implementation", World Bank, Washington D.C.

World Bank and International Monetary Fund, 2001, "Developing Government Bond Markets: A Handbook", United States of America

Yibin Mu, Peter Phelps, and Janet G. Stotsky, 2013, "Bond markets in Africa", *Review of Development Finance 3*, p 121–135

Financial Times, 25 January 2012, "Guest post: the world needs to develop missing markets"