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What's behind recent trends in Asian corporate bond markets?

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Corporate bond markets in Asia have expanded rapidly. Since the global financial crisis, Asian corporates have made increasing use of bond issuance for their funding needs, complementing traditional channels such as bank lending. The boom in bond issuance, which grew more than fourfold since 2008, has been fuelled by favourable global liquidity conditions and regional initiatives.

Asian corporate bond markets provide a mixed picture. While the bond markets of Hong Kong, Singapore and Korea are comparatively advanced and liquid, markets in China, India, Indonesia and Thailand are still at an early stage of development. Using data based on bond issuance also reveals variations in terms of structural characteristics by sector, currency, issuing volume and use of funds.

While fast growth in bond markets has provided an effective source of financing for the corporate sector, its development is far from complete. Corporate leverage and indebtedness have risen throughout the region, notably in China. More needs to be done to build a framework that is both conducive to market innovation and enables companies to seek funding from a broader range of sources without increasing vulnerability to shocks.

There is a structural imperative underpinning growth in corporate bond markets. Long-term projects increasingly require funding from the non-public sector, given the region's demographic challenges, emerging middle classes and substantial needs in infrastructure and urban development, which cannot all be met via fiscal spending only.

Key corporate bond market indicators in Asia 1

	Corporate bonds outstanding, 2013*			Corporate bonds issued, 2009-13		Market concentration	Corporate credit-to-GDP, 2012		Corporate leverage, 2012
	Size	FX share	Maturity** <3Y	FX	Floating	Top 10 share			
	% of GDP	% of total	% of total	% of total	% of total	% of total	% of GDP	5Y, CAGR	Debt-to-equity
China	16.4	9.0	24.4	9.1	1.5	23.7	139.4	22.6	104.6
Hong Kong	78.1	60.1	34.3	84.5	5.2	63.2	174.1	10.5	na
India	11.8	na	na	25.7	0.4	76.5	49.6	18.4	77.3
Indonesia	5.9	59.4	36.9	84.0	0.1	85.3	18.1	18.8	63.6
Korea	90.1	11.9	45.0	15.6	5.5	70.5	111.4	8.5	80.6
Malaysia	48.4	17.0	15.7	36.5	0.2	60.9	na	na	77.3
Philippines	9.3	47.5	20.4	34.1	3.5	90.8	na	na	96.3
Singapore	46.6	31.3	26.8	18.6	3.8	58.4	69.9	7.3	na
Taiwan	49.6	na	na	8.3	1.5	86.5	na	na	na
Thailand	19.8	18.1	35.3	12.7	0.8	63.1	51.8	7.1	85.6

Note: Colour coding indicates figures falling into the top (dark blue) and bottom (light blue) quintiles among sampled Asian countries.
* Latest available, generally September 2013, except for India (2012). Data based on Asian Bonds Online include bonds by companies and financial institutions.
** Includes local currency corporate bond market only.
Sources: Deutsche Bank Research, Asian Bonds Online, CEIC, BIS, IMF, Dealogic

I. Asia's corporate bond markets: Drivers and risks

Asia's corporate borrowers have been very well received in recent years. Resilient fundamentals and improved (sovereign) creditworthiness have served as key "pull" factors, while a number of external conditions provided the fuel for Asia's borrowing spree. First, low rates in the developed economies drove investors towards Asia in search for yield. Second, bond markets increasingly fulfilled a "spare tyre" function for Asian firms, even as local and other international banks stepped in to fill the gap when European lenders reined in financing activities abroad.[1] On the supply side, corporate issuance received a strong boost from regulatory and policy initiatives aimed at deepening bond markets and improving related infrastructure.

Against this backdrop, corporate bond markets in Asia have grown significantly.[2] Corporate bond market capitalisation reached 24.2% of the region's GDP by 2012 from just 16.7% in 2008. In value terms, the stock of outstanding corporate bonds amounted to USD 3.2 tr by Q3 2013 – almost triple the value recorded at the end of 2008. The pace of growth was especially high after 2009, with much of the dynamism stemming from growth in the local currency market.

Timeline of bond market development 2

Date	Selected initiatives
2002	Asia Bond Market Initiative (ABMI), launched under ASEAN+3 to encourage local currency bond market development and increase diversity of bonds and issuers.
2003	Asian Bond Fund 1: launched by central banks of EMEAP* countries to invest pooled savings in the region's (sovereign and quasi-sovereign) bond markets.
2005	Asian Bond Fund 2, follow-up to ABF1, with investment channelled into local currency bonds. Primary goal is to reduce market barriers for investors and improve liquidity in sovereign bond markets.
2008	ASEAN+3 New ABMI Roadmap, set up task forces to address specific issues in local bond market development.
2010	ASEAN+3 Bond Market Forum, created to promote harmonisation of market practices and regulations to facilitate cross-border bond issuance, also for corporate bonds.
2010	Launch of the Credit Guarantee and Investment Facility (CGIF) as a trust fund within the ADB; provides credit enhancement to promote larger and cross-border corporate bond issues.
2015	ASEAN Economic Community (AEC), establish a single market and production base and promote regional integration of trade, services and capital markets.

*Executives' Meeting of East Asia and Pacific

Sources: Chan et al. (2011), ADB (2012)

Rapid growth of Asia's corporate bond markets has been partly an outcome of the region's efforts to establish domestic government bond markets. Helped by targeted measures in this area, Asia's local bond market has become a role model for other emerging market countries trying to build resilience and reduce currency mismatches in debt capital markets. Various initiatives (see Timeline) have made a contribution and strengthened regional cooperation among Asian countries. In doing so, Asian economies have drawn lessons from the 1990s currency and maturity mismatches which soured corporate and sovereign balance sheets and eventually triggered a systemic crisis in 1997/98.

Important financing source but not a silver bullet for capital market deepening

Corporate bonds constitute just one component in the funding mix for non-financial companies, ranging from small and medium-sized enterprises (SMEs) to large conglomerates. For emerging market firms, the domestic corporate bond market may provide a stable source of financing for business needs, thereby limiting the reliance on public-sector funds and fuelling economic growth. Larger companies may tap global bond markets for capital to fund longer-term projects catering to emerging middle classes and addressing the substantial needs of infrastructure upgrading and urbanisation.

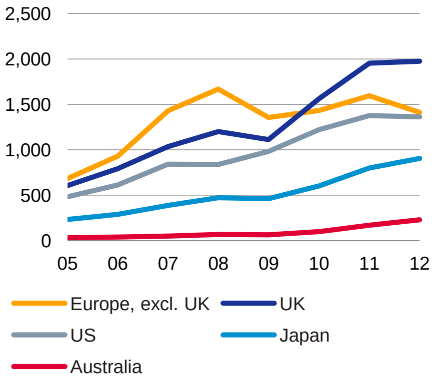
Fast growth in bond markets has enabled efficient financing for business needs, stimulating investment and growth. However, Asian firms' extensive use of the debt capital market needs to be matched by progress in making the markets deeper and more stable. Asia's corporate bond markets remain, with few exceptions, small and illiquid. Considerable variation exists in the region with respect to market size as well as structural characteristics underlying corporate bond issuance. In addition, corporate indebtedness and leverage have risen throughout the region, notably in China, raising the vulnerability to a sudden dry-up in funds.

Table 1 on page 1 summarises some of the key corporate bond market characteristics – discussed in more detail throughout this report. The first part of the report focuses on the drivers and risks associated with Asia's fast growing corporate bond markets. The second part uses data from Dealogic to provide a more detailed overview of firms' bond issuance in recent years. The third part

[1] Feyen and del Mazo (2013).
[2] Asia in this report comprises China, Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand and (where available) Vietnam.

Others step in as Europe deleverages 3

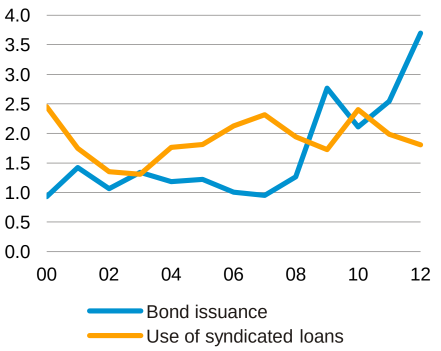
USD bn, internat. claims vis-à-vis developing Asia



Source: BIS

Corp. bonds accelerate vs synd. loans 4

% of GDP

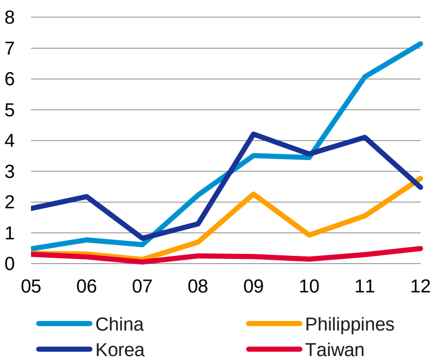


Asia incl. CN, HK, IN, ID, MY, PH, SG, KR, TW, TH

Sources: Deutsche Bank Research, Dealogic

Bond issuance exceeds synd. loans 7-fold in China 5

Corporate bond to synd. loan volumes ratio



Sources: Deutsche Bank Research, Dealogic

offers an outlook for corporate bond markets in the region, based on the key remaining issues and risks uncovered by recent issuance trends. Depending on the source of data, the definition of corporate bonds may include or exclude financial institutions, as will be indicated case-by-case.

Corporate funding is overwhelmingly bank-based but bonds are catching up

Throughout the region, bank-intermediated credit remains the dominant source of financing for companies. Bank-based financial intermediation has a traditionally strong position in Asia, where it can draw on the region's sizeable pool of domestic savings. Banks' reliance on deposits as opposed to wholesale funding is high – in Indonesia, Malaysia, Thailand and India, for instance, banks depend on retail deposits for more than 75% of their funding.[3] Bank-based intermediation can also help to reduce information asymmetries that would otherwise drive up monitoring costs and complicate access to funding, in particular for smaller issuers.[4] Incomplete information is still a relevant constraint on corporate finance in Asia, given that most firms do not possess a long issuance track record and uninformed borrowing proved to be fatal during the Asian crisis. Relationship-based lending continues to play a role in Asia, especially where the corporate sector is to a significant extent shaped by family-controlled conglomerates.

However, the dominant position of bank credit is increasingly being challenged. Firms' attempts to tap funding sources outside the bank channel have received fresh impetus due to a number of factors in recent years.

Bonds vs bank lending – shifting patterns

One of these factors is the shift in the composition and origin of international debt flows in the course of the global financial crisis. While European banks' lending to emerging markets decelerated sharply (chart 3), the impact of foreign deleveraging on credit supply in Asian countries was more muted. Not only did lenders from other regions (notably UK, US and Japan) at least partially compensate for the shortfalls in cross-border flows from continental Europe, but most countries also adopted policies geared at supporting credit to small and medium enterprises and trade finance.[5]

Yet, the ease with which different types of funding flows could be substituted seems to differ. Long-term syndicated bank loans with a maturity of 5 years or more – a key financing method - appear to have contracted successively since the onset of the crisis, according to a report by the G20.[6] By contrast, long-term international bond flows to Asia rebounded in 2009-10, suggesting that the bond market contributed to stabilising long-term debt flows to the region. The G20 report also points out that investment grade borrowers accounted for 90% of long-term bank lending in 2009-11, but only 75% thereafter, at the same time as investment grade companies gained share in international bond issuance. This implies at least some substitution may have taken place, helped by improved access and lower financing costs in bond markets.

The growing relevance of bonds relative to syndicated loans for Asia's non-financial firms is also evident from Dealogic data, where bond issues gained after 2010 as a share of GDP while the share of syndicated loans fell (chart 4). In aggregate terms, bonds and syndicated loans may often be substituted for each other, depending on whether liquidity in loan markets is favoured over

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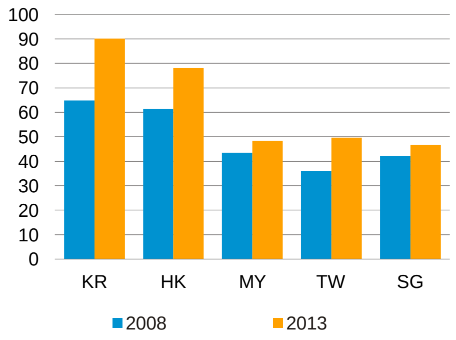
3 McKinsey (2013).
4 Takagi (2002).
5 Ayar and Jain-Chandra (2011).
6 G20 and World Bank (2013).

Largest Asian corporate bond markets 6

Corporate bonds outstanding, % of GDP

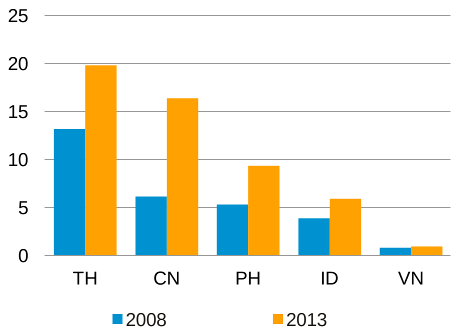


Note: Includes bonds by financial institutions. 2013 data is as of September.

Sources: Asian Bonds Online, CEIC

Some smaller markets 7

Corporate bonds outstanding, % of GDP

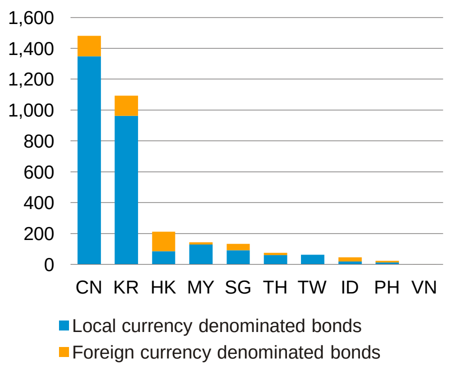


Note: Includes bonds by financial institutions. 2013 data is as of September.

Source: Asian Bonds Online

In USD terms China, Korea dwarf others 8

Corporate bonds outstanding, USD bn



Note: Includes bonds by financial institutions. 2013 data is as of September. Data for Taiwan include both LCY and FCY.

Sources: Asian Bonds Online, CEIC

typically longer-term and fixed rate bond funding or vice versa. In 2012, firms' bond issuance exceeded syndicated loan volumes in Hong Kong, Korea, the Philippines, Malaysia and China (chart 5). Bond issuance growth in the latter has been a key engine behind the rise in bonds versus loans in Asia, coupled with a relatively flat development of syndicated loan volumes over the same period.

Another supply-side driver of changes in Asian firms' funding mix is the regulatory challenge facing banks, both global and local ones. With Basel III being phased in across the globe, higher capital requirements could constrain bank lending to corporates and create higher demand for bond market funding. Although the region seems relatively well-placed to meet higher standards, individual banks' abilities to serve firms' financing needs may differ. In addition, banks may be required to provide higher-quality liquid assets – such as high grade corporate bonds – as collateral.[7]

Policy initiatives have facilitated local and non-rated bond issuance

Regulators across Asia have encouraged issuance of locally or unrated debt to stimulate the use of the bond market. The Credit Guarantee and Investment Facility (CGIF) – a trust set up in 2010 by ASEAN+3 (China, Japan, Korea) and the Asian Development Bank (ADB) – provides guarantees for bonds issued by firms facing constraints in securing long-term funding from the local bond market. Another example is Thailand's Securities and Exchange Commission (SEC) which began to allow the sale of unrated bonds to accredited investors.[8]

The larger role played by local agencies (set up as either government initiatives or joint ventures with international agencies) has facilitated firms' access to the bond market in countries such as China, India, Korea, Malaysia and Thailand.[9] In Vietnam, by contrast, absence of an effective credit rating system may have hampered corporate bond issuance. Of the bonds registered in 2012 up to mid-2013 only a fraction has been issued.[10]

Corporate bond markets expanded most in China

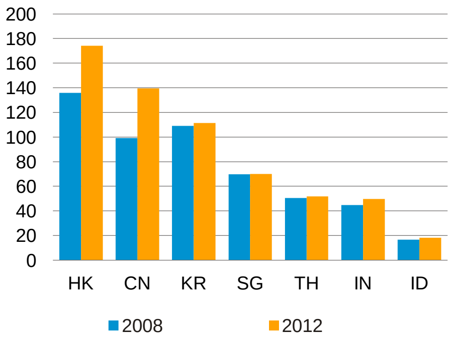
The size of the corporate bond market remains mixed across countries. Only in Korea, Hong Kong, Malaysia, Taiwan and Singapore are corporate bond markets comparatively advanced with outstanding bonds close to or in excess of 50% of GDP (chart 6). This figure includes bonds both by companies and financial institutions. ADB provides the split between the two only for foreign currency denominated bonds, of which 39% constituted bonds by banks and other financial institutions as of Sep 2013. Most other corporate bond markets in the region start from a low base, with market capitalisation still below 20% of GDP, and these include Thailand, China, the Philippines, Indonesia and Vietnam (chart 7). The Indian corporate bond market at 11.8% of GDP as of 2012 is equally underdeveloped.[11]

China stands out as having doubled the size of its corporate bond market as a share of GDP over the past 4 years (to reach 16.4% of GDP at the end of Q3 2013). In dollar terms, it increased more than fourfold from USD 280 bn at end-2008 to more than USD 1.4 tr in 2013. This makes China the largest corporate bond market in the region by USD value (chart 8). Excluding China, the

[7] Deutsche Bank Research (2013a).
[8] ADB (2013).
[9] Shim (2012).
[10] Vietnam News (2013).
[11] Reserve Bank of India (2012)

Credit to non-financial corporates 9

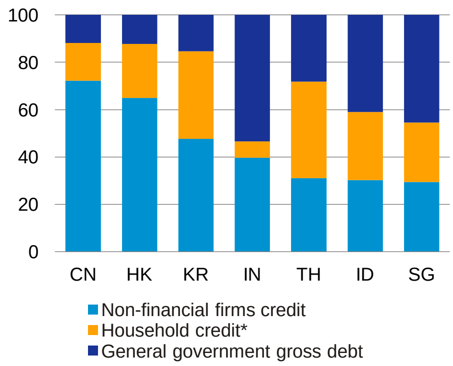
% of GDP



Sources: Deutsche Bank Research, BIS, IMF

Company debt accounts for large chunk 10

% of total debt

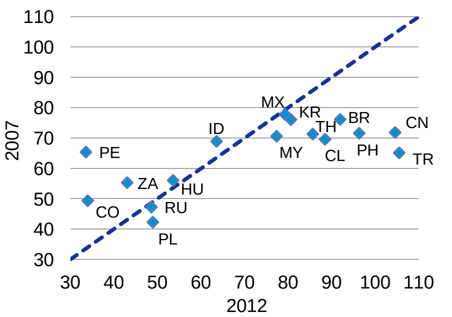


* Includes non-profit organisations serving households.

Sources: Deutsche Bank Research, BIS, IMF

Rising leverage not only in Asia 11

Debt-to-equity, %



Source: IMF Global Financial Stability Report

strongest USD growth was observed in Indonesia and the Philippines, where the corporate bond market expanded by more than 170% since 2008.

It is important to note that the corporate bond market has provided a financing platform not only to private sector firms but also government projects in line with a broader policy agenda. State-owned companies continue to be important players in Asian corporate bond markets, with some 40% of Asian corporate bond issuance undertaken by public entities.[12] Perhaps not surprisingly, China's fast-growing corporate bond market remains to a large extent state-dominated, where the twenty largest state-owned issuers accounted for 41% of corporate bonds outstanding as of Q3 2013.[13] Moreover, local governments have tapped the corporate bond market indirectly via financing vehicles to stimulate urban and infrastructure development (see box on the next page).

The flipside: Asian corporate borrowing has increased faster than GDP

The strong expansion in Asia's corporate bond markets has freed up funds needed for investment and growth in recent years while also helping the deepening of capital markets and diversification of financing sources. At the same time, borrowing from debt capital markets has contributed to strongly rising corporate debt levels in some countries.

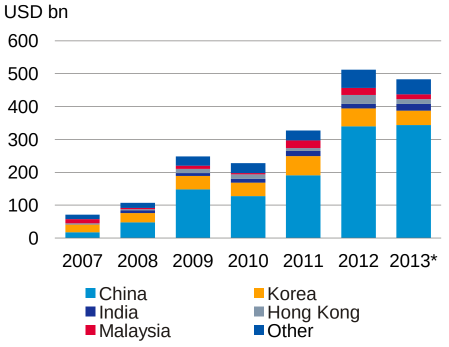
Chart 9 presents the expansion in the overall stock of credit to non-financial corporations in Asia, comprising both bonds and loans based on BIS data. On average,[14] credit rose to nearly 88% of GDP in 2012, from 75.1% in 2008. Corporate debt ratios in China and Hong Kong are markedly above 100% of GDP, although Hong Kong's is overstated by the large amount of loans intended for use offshore, a special feature of its role as an international financial centre. In Korea, corporate credit-to-GDP did not change much in the last few years, after rising sharply until 2008. In Thailand, Singapore, India and Indonesia, by contrast, the ratio stands at less than 80% of GDP.

The fastest expansion in corporate debt was registered in China, where credit to non-financial firms grew at a compound annual growth rate (CAGR) of over 22% in the past five years. India and Indonesia are not far behind China, at over 18% CAGR since 2008. This trend is also changing the composition of overall debt in the economy, with corporate debt accounting for a sizeable portion relative to household and general government debt throughout Asia (chart 10).

From an historical perspective, Asian corporates are not highly leveraged. At end-2012 debt-to-equity ratios, as a measure of structural leverage at the firm level, stood below the median levels of 2002-07.[15] Debt-to-equity ratios were also lower on average than those in the US and the eurozone and similar to those in Latin America. However, debt-to-equity ratios have trended up in some Asian economies. The non-financial corporate sectors of China, the Philippines and Thailand were the most leveraged in 2012, after rising from already elevated levels in 2007 (chart 11).[16] As Mizen and Tsoukas (2013) point out, a firm's high leverage – up to a certain point – may in fact be associated with higher issuance of corporate bonds by that firm, either because of larger rollover needs or as a signal of the firm's ability to access the debt market in the past.

[12] Reserve Bank of Australia (2013).
[13] Refers to local currency bonds only. See ADB (2013a).
[14] Includes China, Hong Kong, India, Indonesia, Korea, Singapore and Thailand.
[15] IMF (2013a).
[16] IMF (2013).

Rapid rise in corporate bond issuance 12



* Up to mid-December 2013.
Sources: Deutsche Bank Research, Dealogic

Corporate bonds – a financing channel for China's LGFVs 13

China's corporate bond market splits into three categories: (1) short- and medium-term bonds (supervised by NAFMII under the PBOC's oversight), (2) corporate bonds issued by listed companies and regulated by the securities regulator CSRC (3) enterprise bonds – lower coupon rate bonds that are issued by government affiliated or funded entities, mainly unlisted SOEs, and must be guaranteed by commercial banks or the state. Issuance is subject to regulatory approval from the National Development and Reform Comission (NDRC).

The corporate bond market has also become a vital financing channel for local governments which are barred from selling debt directly. In the wake of China's crisis stimulus of 2009-10, restrictions were relaxed to allow the central government to issue bonds on behalf of local governments. More significantly, however, local governments' borrowing via local government finance vehicles (LGFV) soared, including from the corporate bond market. Such LGFV corporate bonds typically come in the form of enterprise bonds, with land or physical assets often pledged as collateral. In this way, corporate bonds have become a major source of funding for local governments, providing capital for infrastructure and housing investment.

According to estimates by the IMF, local governments' off-budget financing through net corporate bond issuance may have increased to around 2.3% of GDP in 2012 from just 0.9% in 2011. This gives LGFVs a significant role in overall corporate bond issuance, accounting for around 25% of total bonds issued by SOEs and listed enterprises in 2012. Restrictions on new LGFV borrowing from banks have tightened since 2011. More recently, non-bank lending and bond issuance have also received heightened attention as the risks stemming from shadow financing activities have become more evident. Efforts to reverse this trend and to increase transparency intensified, for example by reclassifying LGFVs. The 2013 3rd Plenum's decision to develop the municipal bond market is an important step into that direction.

Sources: IMF (2013b), IIF (2013)

II. A closer look at corporate bond issuance

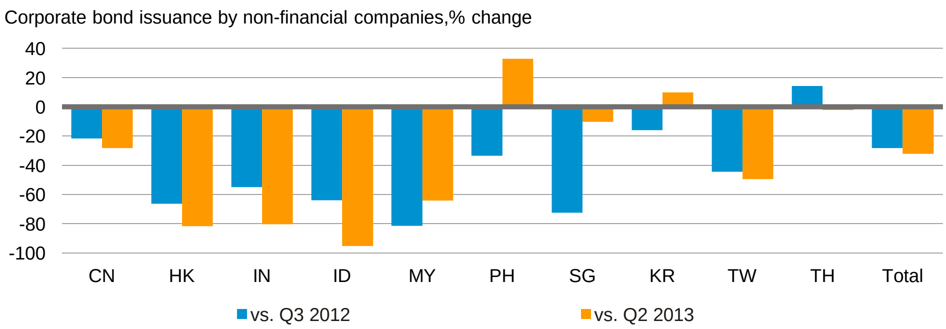
The following section takes a closer look at the structural features behind corporate bond issuance in Asia over the past five years up to mid-December 2013. Data are derived from Dealogic, where issuance is based on transaction volume, defined as the global proceeds of a deal. Volumes are categorised according to the nationality of a deal and are converted into USD at the time of pricing. The analysis is based on issuance by non-financial firms only, which comprises two thirds of total corporate bond issuance in 2009-13. Corporate bond volumes include investment grade and high yield debt as well as medium-term notes and preferred securities.[17] The data cover China, Hong Kong, India, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan and Thailand.[18]

Annual corporate bond issuance in these countries surged from just over USD 100 bn in 2008 to a record USD 512 bn in 2012. In 2013, Asian firms issued bonds worth more than USD 480 bn (chart 12). This high volume was reached despite the successive decline in issuance after the first quarter. Bond issuance in the third quarter fell relative to both the previous quarter and previous year in all sampled countries except the Philippines and Korea (and to a lesser extent Thailand), reflecting the impact of the EM sell-off (chart 14). In the fourth quarter, issuance picked up again in Hong Kong, India, Indonesia and Malaysia, but only in India and Thailand had the total volume exceeded 2012 issuance by mid-December. Overall, Indian firms overtook Malaysian and Hong Kong companies as the third largest issuers in 2013, topped solely by Korean and Chinese corporations.

Largest issuance comes from construction, mining and utilities sectors

Corporate bond issuance has been concentrated in mining and utilities, construction and the transport sector (chart 15). In addition the financial sector accounted for one-third of the bonds issued in 2009-13. In China, construction and real estate companies have become key drivers of the issuance boom, increasing their share in total issuance to 22% in 2012 from only 14.5% in 2011. In Hong Kong, they account for 37% of bonds issued in 2009-13. Indonesia's corporate bond landscape is dominated by mining and utilities firms which issued more than half of all bonds in 2009-13. In part, these country-specific features reflect differences in the underlying economic structure, as a higher share of the respective industry in GDP is typically associated with larger bond issuance.

Bond issuance stalled or declined in Q3 2013 14



Sources: Deutsche Bank Research, Dealogic

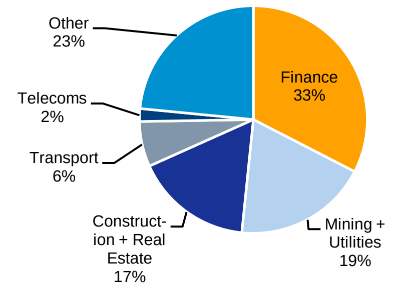
[17] Inclusion of deals is subject to certain rank criteria, such as a minimum maturity data of 18 months after settlement. Nationality classification is based on the nationality of the issuing entity's parent company where there is credit support or guarantee for the issuing subsidiary. Without that support or guarantee, deal nationality takes the nationality of the issuing subsidiary.

[18] See Reserve Bank of Australia (2013) for a related analysis.

What's behind recent trends in Asian corporate bond markets?

Finance dominates bond issuance 15

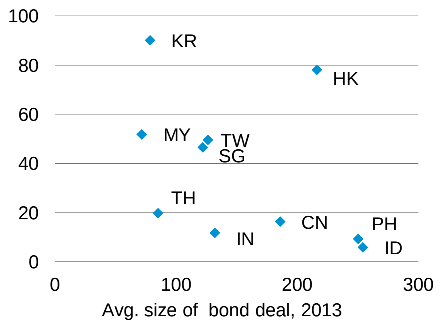
% of total corporate bond issuance, 2009-13



Note: Incl. financial companies, Finance incl. holding comp.
Sources: Deutsche Bank Research, Dealogic

Size matters in less advanced markets 16

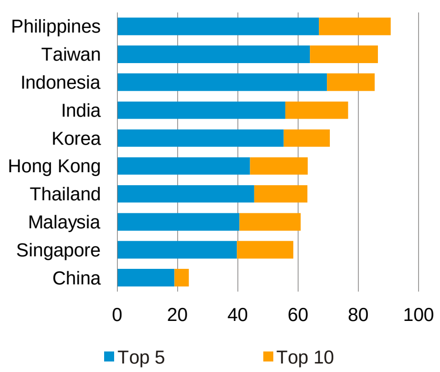
Corporate bond market, % of GDP



Sources: Deutsche Bank Research, Dealogic, Asian Bonds

Markets remain heavily concentrated 17

% of total corporate bond issuance, 2013



Note: Based on issuer parent.

Sources: Deutsche Bank Research, Dealogic

The industry also seems to play a role in the average size of a bond deal, ranging from many small issues to large placements. Big-ticket items are found not only in China but also in the Philippines and Indonesia, where sizeable issuances have come from utilities, natural resources and infrastructure (railway) firms. In the face of the heavy funding needed for large-scale projects, the relationship between average bond issuance size and the state of development of the corporate bond market tends to be negative, though Hong Kong is an outlier (chart 16). The conjecture for these differing volumes is that in less developed bond markets smaller firms may find it difficult to raise funds due to higher fixed costs associated with imperfect market infrastructure and lack of transparency for investors.[19]

Bond issuance is often dominated by a handful of players – a limitation that highlights why corporate bond markets are considered still in their infancy in many countries. In Taiwan and Indonesia the ten largest issuers were responsible for more than 80% of total bond issuance in 2013. In the Philippines issuance was limited to 14 (parent) companies, of which one large conglomerate contributed 27% of total issuance. China's issuer landscape is more diversified (more than 1000 issuers in 2013) with 24% of total issuance accounted for by the top ten non-financial firms (chart 17).

Most corporate debt is issued via public placement in the domestic market

Public placements in the domestic market accounted for the highest share of total corporate bond issuance in China, Malaysia, the Philippines and Korea. Yet, with the cost of borrowing a primary determinant of firms' financing mode, private placements are still relatively common given the high regulatory costs associated with public issuance.[20] In India, for example, more than 80% of the corporate bonds issued domestically in 2012 were through private placements, according to Dealogic data. China's regulator initiated a pilot scheme for private placement bonds to SMEs in 2012 in a move to stimulate development of the bond market and reduce smaller firms' reliance on bank loans. The decision was followed up in 2013 by the announcement to extend private issuance to a wider region and companies registered at the "new third board", a nationwide share transfer platform for non-listed companies.[21] Private placements have increased steadily in China but public issuance still dominates (at 85% of total domestic bond issuance in 2012).

Local currency dominates but foreign currency issuance has been on the rise

Asian corporate bond markets are characterised by their high proportion of bonds denominated in local currency. The 83% share of corporate bonds issued in local currency in 2009-13 is significantly higher than in other emerging market regions, for example Latin America, where local currency issuance accounted for only 28% of firms' bond issuance in the same period.

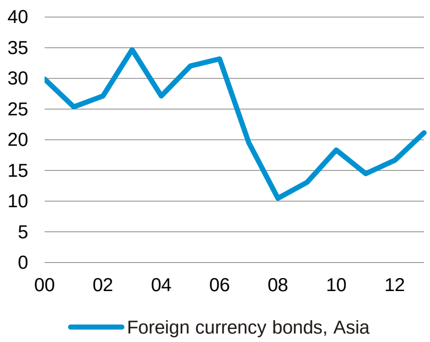
Developing local currency bond markets has been one of the key improvements in the aftermath of the Asian crisis, given that currency mismatches had been a root cause of mushrooming foreign currency (FX) liabilities in the crisis.

Firms' choice of the currency in which a bond is issued ultimately depends on a variety of factors; an important one being the cost of issuance with the interest rate differential between local and FX-denominated debt as a key determinant. Scale and depth of the local debt market, presence of foreign investors and exemption from withholding taxes have been found to support issuance in local

[19] Meyer and Kaya (2013).
[20] Goswarmi and Sharma (2011).
[21] China Securities Regulatory Commission (2013).

FX denomination revisited 18

% of total annual corporate bond issuance



Sources: Deutsche Bank Research, Dealogic

currency.[22] Availability of risk management techniques may favour foreign currency borrowing if they improve firms' ability to hedge their FX liabilities. For example, more developed swap and derivatives markets can help companies to match interest payments and income streams in different currencies.[23]

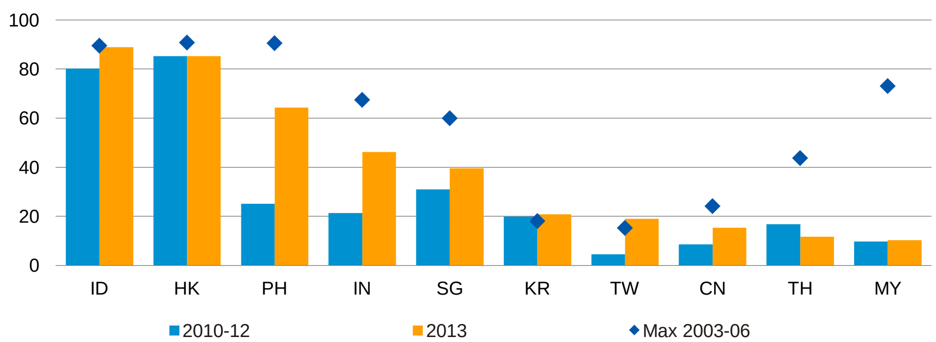
The exceptions to local currency denominated corporate bond issuance are Hong Kong and Indonesia. In Hong Kong, the currency's peg to the USD ensures that issuers of dollar-denominated bonds are not subject to the risk of exchange rate fluctuations but can still reap the benefits of higher liquidity in offshore markets. In 2012, local corporates actively issued in USD markets to make use of tightening yield spreads.[24]

In Indonesia, 84% of the corporate bonds issued in 2009-13 were denominated in foreign currencies, mostly USD. In the context of low interest rates, borrowing in USD offered a cheap source of funding relative to borrowing in local currency, which was often not available for smaller issuers. While Indonesia's resource export companies can naturally hedge their foreign borrowing, state-owned companies were barred from doing so until September 2013. Capital outflows and swings in the domestic currency have exposed the weakness of companies whose foreign-currency borrowing is not backed by matching income streams.

In contrast to the earlier trend, foreign currency bond issuance has been on the rise again in recent years. Lower debt-servicing costs have propped up firms' ability to take on foreign-currency denominated debt. The share of foreign-currency denominated bonds in issuance consequently rose from below 15% in 2008-09 to more than 20% in 2013 (chart 18). This ratio is still below its peak recorded between 2003 and 2006, except in Korea and Taiwan (Indonesia and Hong Kong are close). In some countries, a distinct increase in foreign currency bond issuance has occurred only in 2013. The Philippines, India, and Taiwan stand out in this regard (chart 19).

Foreign currency issuance is rising but mostly still below previous peaks 19

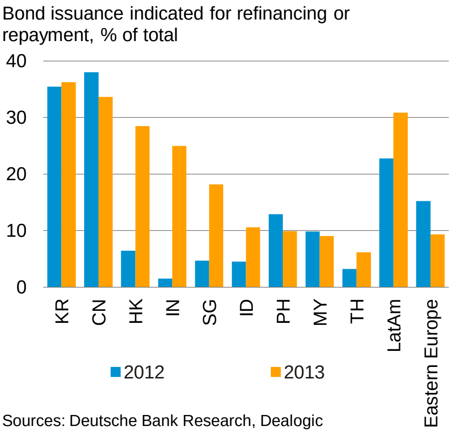
% of total corporate bond issuance



Sources: Deutsche Bank Research, Dealogic

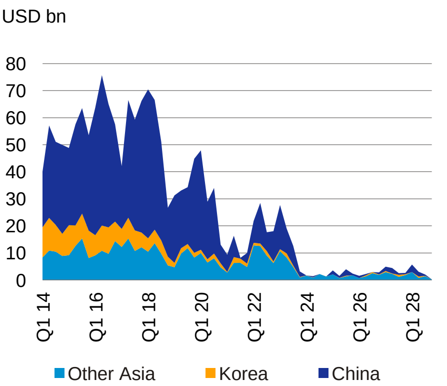
22 Mizen et al. (2012).
23 Munro and Woolridge (2010).
24 Hong Kong Monetary Authority (2013).

Refinancing edged up across Asia 20



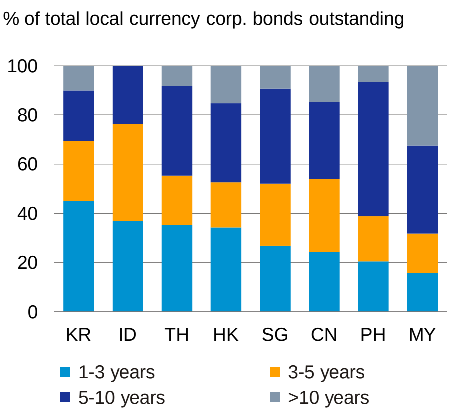
Sources: Deutsche Bank Research, Dealogic

USD 1.4 tr set to mature by 2020 21



Sources: Deutsche Bank Research, Dealogic

Corporate bonds by remaining maturity 22



*Note: data as of end-2013, for HK, CN, MY as of Sep 2013. Includes financial institution bonds.
Source: Asian Bonds Online

Issuance for refinancing purposes has increased recently

Up until 2012 bond issuance by Asian firms mainly served the purpose of propping up working capital, project and trade finance or other general business objectives, as shown by Dealogic data categorised by the use of proceeds. During the global financial crisis, the share of bonds issued to refinance or repay debt picked up sharply while "new money" (proceeds not meant for refinancing or debt repayment) dropped as global economic uncertainty weighed on business plans.

The issuance boom in 2011-12 was again driven by bonds issued mostly for project and business related purposes. By contrast, the share of bonds issued to refinance or repay debt edged up in the course of 2013, notably in Hong Kong, India, Singapore, and Indonesia, reaching similar levels to those in other EM regions (chart 20). In line with this trend, S&P expects much of firms' future refinancing needs to be served by issuance of new debt.[25]

As the bonds issued in the recent funding wave mature, more debt is expected to be needed for refinancing and repayment purposes in the coming years. Of the corporate bonds outstanding in the region as of end-2013, some USD 1.4 tr are scheduled to mature by 2020, with Chinese debt represents 68% of the total, followed by 18% from Korea (chart 21).

In the aggregate, refinancing risks appear to be manageable.[26] The overwhelming majority of corporate bonds has been issued at a fixed rate contract. In this way many companies were able to lock in long-term funding at low interest rates. Firms in Korea have issued some smaller volumes at floating rates over the past years, but these account for less than 6% of total issuance.

Maturities have lengthened except in China

The average maturity of outstanding corporate bonds in Asia has lengthened. Of the local currency denominated bonds outstanding (including by financial institutions) one-third now carries a maturity of five to ten years (chart 22). Longer maturities are positive as they ensure companies will not have to refinance too soon, potentially at higher costs.

Bonds issued by Malaysian corporates possess the longest average maturity at 7.5 years, whereas 45% of outstanding Korean bonds fall in the category of one to three years. In China, permission to issue short-term bonds excluded from the 40% limit for some higher-rated companies has worked in the opposite direction, fuelling shorter-term issuance.[27] As a result, a growing share of non-financial corporate bonds (around 25%) has been issued at tenors of three years or less.[28]

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25 S&P (2013).
26 See also Moody's (2013a).
27 Under current regulations, the value of a firm's outstanding corporate bonds may not exceed 40% of its net assets. See IIF (2013).
28 Reserve Bank of Australia (2013).

III. How to develop more robust and stable corporate bond markets

Notwithstanding the recent fast surge in firms' bond issuance, developing the corporate bond markets in Asia remains a work in progress. In the past, policy initiatives have successfully contributed to the development of local sovereign bond markets in Asia but only a few have targeted corporate bonds. More needs to be done to build a framework that is both conducive to market innovation and enables companies to seek funding from a broader range of sources without increasing vulnerability to shocks, such as a sudden increase in refinancing costs or swings in the exchange rate.

There is a broader, structural imperative underpinning growth in corporate bond markets. Long-term projects increasingly require funding from the non-public sector, given the region's demographic challenges, emerging middle classes and substantial needs in upgrading infrastructure and urbanisation, which cannot all be met via fiscal spending only. Asia's investment needs in infrastructure are substantial – as much as USD 8 tr in the ten years to 2020, according to ADB projections.[29] If sufficiently advanced, corporate bond markets can make an important contribution to regional growth and investment by providing needed long-term funding.

Mitigating refinancing and roll-over risks

Against the backdrop of still small and illiquid markets, excessive reliance on foreign currency or short-term issuance as well as high and fast-rising leverage can render the corporate bond market vulnerable to corrections. Higher interest rates are sure to come, but the level of preparedness to serve corporate financing needs at higher costs differs across the region. Table 1 on page 1 shows that some countries are more exposed to certain shocks than others, based on selected corporate bond market indicators.

— In China, while corporate bond market capitalisation is still quite low relative to GDP (at 16.4%) and issuance has been skewed towards the state sector, the rapid rise in issuance has led to a higher share of short-term debt and the highest corporate leverage ratio in the region.

— Likewise, Hong Kong and Korea show high corporate credit-to-GDP ratios. There is also a tendency towards floating rate and shorter-dated securities, but markets are considerably larger (78% and 90% of GDP respectively) and more liquid. In the case of Hong Kong, corporates are more active in the foreign currency debt market.

— In Malaysia, Singapore, and Thailand, firms' bond issuance trends in recent years have been accompanied by a growing share in longer-duration bonds. Foreign currency issuance is below 40% of the total and has risen less sharply than in other countries; notably so in Malaysia where use of foreign currencies continued to fall in 2013. Corporate borrowing stands below 70% of GDP.[30]

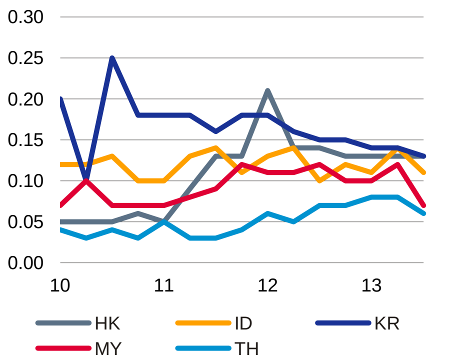
— Indonesia and India, both having small corporate bond markets as a share of GDP, have seen a rapid accumulation in corporate credit, albeit from a low base. For Indonesian corporates, high and rising foreign currency borrowing remains the key vulnerability while maturity trends are favourable. The Philippines' corporate bond market – also among the smallest – is characterised by a limited number of issuers, high concentration among conglomerates, and a marked pick-up in foreign currency issuance in 2013.

[29] ADB (2013).
[30] In the case of Malaysia, corporate and household credit totalled 130% of GDP as of 2012.

To manage the transition to a more resilient bond market, greater use of the debt market for funding needs to be accompanied by reform. Key areas to focus on are improving market infrastructure, broadening the investor base and deepening integration.

Turnover ratios in local currency markets 23

Value of traded to outstanding corporate bonds



Source: Asian Bonds Online

Size and liquidity in secondary markets

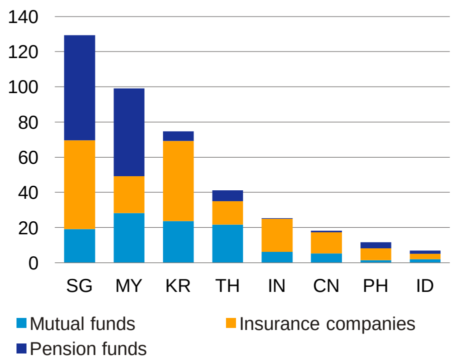
Despite fast growth in primary issuance, low trading volume in secondary markets remains a limitation to corporate bond market development in many Asian countries. Bid-ask spreads for newly issued corporate bonds are found to be typically wider than is the case for sovereign bonds, reflecting lower liquidity.[31] Corporate bond turnover ratios, which measure the value traded in the secondary market relative to the amount of bonds outstanding, is also limited (chart 23). New issues are often traded only for few days. Besides the short trading period of corporate issues, factors constraining liquidity in secondary markets include the limited availability of risk management products. Improvements in the legal infrastructure could also help the development of a repo and derivative market.[32]

Supporting infrastructure

While the government bond market has recorded significant achievements in establishing a functioning market infrastructure, fast growth in corporate bond markets has not translated into essential upgrading of supporting market structures such as standardised credit rating systems, risk management products and a functioning legal and regulatory framework. A reliable benchmark yield curve provided by the government bond market can improve efficiency and transparency in the pricing of corporate bonds, too.[33] Yet, some more targeted efforts may be needed to address the remaining shortcomings. Steps in that direction include Hong Kong's and Malaysia's 2012 launch of a pilot platform for cross-border clearing and settlement of debt securities, aimed at strengthening post-trading infrastructure and promoting standardisation and dissemination of corporate announcements across Asian markets.[34]

Institutional investors' assets 24

% of GDP



Note: data as of latest available, 2009-2012.

Sources: OECD, World Bank, Investment Company Institute

Domestic investor base

Asia's corporate bond markets still face a rather narrow investor profile, albeit one that is becoming steadily more diverse. Banks, which form the largest group of investors in corporate bond markets, may face headwinds from tighter capital requirements and lack of liquidity in secondary markets. Meanwhile, domestic institutional investors such as pension funds and insurance companies have emerged rapidly and are becoming increasingly important investors in corporate bond markets. Althought the size of their assets exceeds 100% of GDP only in Singapore (chart 24), these investors now tend to hold a larger share in corporate bond markets than in government bond markets. In 2013, insurance companies held just over one-fifth of China's corporate bonds outstanding in local currency, while in Korea the combined holdings of insurance companies and pension funds constituted one-third of the market.

Lack of investor diversity can lead to high interdependences in some markets. In China, state-owned commercial banks are the largest holders (around 50%) of

[31] Based on the ADB's Bond Market Liquidity Survey. See ADB (2013a).
[32] Moody's (2013).
[33] Goswarmi and Sharma (2011).
[34] Hong Kong Monetary Authority (2012).

outstanding corporate bonds, which are in turn heavily dominated by state-owned enterprises.[35]

Integrating bond markets

Asia's corporate bond markets are not highly integrated with each other or globally. Integration has lagged behind the level of interconnectedness seen in other markets, notably for equities. This is a phenomenon not confined to the corporate bond market. An analysis by Deutsche Bank (2013) finds that Asian local currency government bond markets are altogether weakly integrated, although the degree of integration differs strongly.[36] Some markets (Malaysia, Taiwan and Thailand) seem to be relatively well integrated regionally whereas others (China, Indonesia and the Philippines) are more isolated. While low integration can shield individual markets from contagion, it also shuts out the positive effects closer integration can provide, for example in terms of efficient resource allocation, enforcement of market discipline and insurance mechanisms.

With the realisation of a single market imminent, policy initiatives have again focused on promoting integration of Asian bond markets. The latest step came from ASEAN economies with the launch of a bond pricing portal, which is meant to pave the way for an electronic trading platform, mirroring a similar project to integrate trading of equities. A roadmap for capital market integration has also been agreed on as part of the inception of the ASEAN Economic Community (AEC) by 2015. This should pave the way for greater, and more resilient, use of the corporate bond market in the future.

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Chen Li

[35] IIF (2013).
[36] Deutsche Bank Research (2013).

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