MARKET-BASED LONG-TERM FINANCING SOLUTIONS FOR SMEs AND INFRASTRUCTURE

OICU-IOSCO

THE BOARD
OF THE
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This research note has been prepared for
the G20 Finance Ministers and Central Bankers

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Information and opinions presented in this note have been obtained or derived
from sources believed by the authors to be reliable.

FOREWORD

As Co-Chairs of IOSCO's Long-Term Financing Task Force, we are pleased to present this IOSCO Research Note, which is a compilation of select long-term market-based financing structures and instruments that have been implemented in various developed and emerging markets. The Research Note draws upon solutions found to be unique and distinct within specific context, and which complement other sources of financing.

Long-term financing has been the subject of attention particularly given the increasing demand from small and medium enterprises, and infrastructure projects. The G20 has also acknowledged the need to improve access to financing, and the role that capital markets can play to address the intermediation gap between the supply and demand for long-term financing.

Recognizing the important contribution IOSCO can make in this area, the IOSCO Board established the Long-Term Financing Task Force in November 2013. In developing this Research Note, the Task Force undertook a review of the issues and challenges faced in long-term financing and opportunities for growth. It also conducted engagements with industry participants and obtained feedback from participants at a conference organized during the 2014 IOSCO Growth and Emerging Markets Committee Annual Meeting.

Moving forward, it is vital for regulators to continue to engage closely with market participants, international organizations and standard setters to enable continued innovation in market-based financing. We hope this Research Note will provide a reference point for regulators and market practitioners seeking long-term market-based financing solutions.

We would like to thank Task Force members, industry participants, and the IOSCO Board Chair, Greg Medcraft, as well as staff of the Ontario Securities Commission, the Securities Commission Malaysia and the IOSCO General Secretariat for their efforts in the preparation of this Research Note.

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I. INTRODUCTION

Long-term financing (LTF) is an essential element for supporting investment and growth. One of the traditional suppliers of LTF, the banking system, has undergone significant deleveraging since the 2008 global financial crisis. Measures intended to improve the resilience of financial institutions have in some cases constrained capacity and/or increased the cost of LTF. As a result, the gap between supply and demand for LTF has widened in many economies around the world, resulting in enterprises seeking alternative sources of funding.

Where markets are deep, liquid and well-regulated, market-based financing can play a role in narrowing this gap by providing a viable alternative to bank financing. In certain jurisdictions, a shifting from bank to market-based financing has been observed, further emphasizing the importance of the development of capital markets, especially for providing LTF. Strong, transparent and appropriately regulated capital markets are essential for the sound functioning of the global economy and to support efforts to drive its recovery and sustainable long-term growth, including the provision of small and medium enterprise (SME) and infrastructure financing.

In addition to providing direct issuer access to market-based finance, capital markets constitute an important source of reliable funding for banks through the use of securitized products and covered bonds, among other products. Developed capital markets can lower the cost of bank capital, better enabling banks to raise additional capital needed to increase their lending capacity, including to SMEs.

SMEs account for the majority of private sector employment in the nations that comprise the Americas, Europe and Asia, and contribute substantially to the gross domestic product (GDP) of each of these countries. Despite their important economic role, access by SMEs to LTF is limited and continues to be a challenge for policy makers. This is mainly due to the relatively higher risk attributed to investing in SMEs, and challenges to the development of frameworks to address the limited scale and heterogeneity within this population. Measures that can diversify risk for investors or isolate and limit known risks can improve the attractiveness of investing in SMEs. Without bank financing, SMEs may rely on personal capital, family contributions, credit card debt and collateral-based financing. Financing challenges for SMEs may seriously limit their expansion potential and innovation.

Another sector often cited as not having sufficient LTF is infrastructure. It is estimated that USD57 trillion worth of global infrastructure investment will be required between 2013 and 2030 to keep pace with projected GDP growth[1]. While governments have traditionally been the main providers of infrastructure financing, in most regions, the public sector can no longer meet infrastructure investment needs given fiscal constraints. The increasing infrastructure funding gap is a major concern globally. In view of this increasing infrastructure gap, as well as the importance of infrastructure facilities for economic productivity and employment growth, private capital should be channeled in support of infrastructure projects. Capital markets can facilitate the allocation

1 McKinsey Global Institute, Infrastructure Productivity: How to Save US$1 trillion a year, January 2013.

of private sector funds for infrastructure development using risk-diversifying techniques, guarantees, and aligning investor and borrower interests. Long-term infrastructure project financing through capital markets can provide a viable asset class for institutional investors seeking suitable long-term investments that meet their risk-return objectives.

Bearing these considerations in mind, the Long-Term Financing Task Force (LTFTF) was formed in November 2013 and has engaged in 86 consultations with market stakeholders from across developed and emerging markets to review the issues and challenges faced in LTF, as well as opportunities for growth. Most jurisdictions cited LTF as an important area of focus, with infrastructure and SME financing being identified as high priorities.

Based on feedback from the G20 Investment and Infrastructure Working Group, LTFTF members as well as industry participants, the IOSCO Board mandated that LTFTF prepare a research note examining recent examples of capital market solutions that have contributed to the financing of SMEs and infrastructure projects. In pursuing this mandate, the drafting team reviewed numerous market-based financing projects from both emerging and developed markets. In order to assess the solutions and develop the research note, the drafting team contacted LTFTF members, other IOSCO members and selected industry participants as well as conducted extensive research based on financial industry reports[2] and regulatory disclosure documents. Among others, the criteria for selecting the 20 case studies included the size and impact of LTF provision, innovative features, replicability and geographical diversity. The drafting team also strived to strike a balance in selecting case studies that represented the different segments of the capital market in both emerging and developed markets. Specifically, this Research Note examines innovative structures and products that have been successfully utilized in the areas of equity, debt, securitization and pooled investment vehicles.

2 Financial industry reports used include reports from rating agencies, investment banks, law firms and accounting firms.

EXECUTIVE SUMMARY

II. EXECUTIVE SUMMARY

I. PURPOSE

This Research Note (Note) has been prepared for the G20 Finance Ministers and Central Bank Governors to examine recent examples of capital market solutions in developed and emerging markets that have contributed to the financing of small and medium enterprises (SME) and infrastructure projects, and informs IOSCO's regulatory community about the role that market-based financing can play. The Note describes innovative structures and products in equity capital markets, debt capital markets, securitization and pooled investment vehicles that provide practical solutions to broadly recognized challenges for financing of SMEs and infrastructure projects. The Note also provides key takeaways from each example and identifies themes common to the innovations.

II. BACKGROUND

Since the 2008 global financial crisis, the banking sector which has traditionally been a major source of funding for long-term financing (LTF) needs, has undergone a significant deleveraging process. This has increased the gap between supply and demand for LTF in many economies around the world. Further, as governments implement austerity measures and face budget constraints, public funding for SMEs and infrastructure projects has been curtailed.

Against this backdrop of a constrained funding environment, there has been a gradual shift from an almost exclusive bank-funded model for LTF towards a model for LTF that includes a greater share of capital market-based funding. Sustainable market-based financing can play an important role in addressing the gap between the supply and demand for LTF, where capital markets are deep, liquid and well-regulated, and where a proper credit origination process is assured. Taking into account the increasing role that capital markets play in the provision of LTF for investments, the IOSCO Board set up the LTF Task Force (LTFTF[3]) in November 2013. This task force is co-chaired by the Chair of the Ontario Securities Commission, Howard Wetston[4] and the Chair of the Securities Commission Malaysia, Ranjit Ajit Singh[5]. The IOSCO Board directed the LTFTF to first conduct a comprehensive review of the issues and challenges faced in LTF, as well as opportunities for growth. The LTFTF undertook 86 consultations with industry from across developed and emerging markets. Additionally, a public conference on LTF was held during the Growth and Emerging Markets Committee Annual Meeting in April 2014 to enable a constructive discussion and sharing of views on issues related to LTF.

Based on feedback from the G20 Investment and Infrastructure Working Group, LTFTF members and industry participants, the IOSCO Board mandated that LTFTF deliver a research note. This Note was

[3] LTFTF comprises Australia (ASIC), Brazil (CVM), China (CSRC), France (AMF), Germany (BaFin), India (SEBI), Italy (CONSOB), Japan (JFSA), Malaysia (SC), Netherlands (AFM), Nigeria (SEC), Ontario (OSC), Singapore (MAS), South Africa (FSB), Spain (CNMV), Turkey (CMB), UK (FCA), United States (SEC) and the IOSCO General Secretariat.

[4] Vice Chairman of the IOSCO Board.

[5] Vice Chairman of the IOSCO Board and Chairman of the IOSCO Growth and Emerging Markets Committee.

prepared by a drafting team comprising the LTFTF Co-Chairs and the IOSCO General Secretariat, and through close engagements with the IOSCO Board Chair, Greg Medcraft[6].

In pursuing the LTFTF's mandate, the drafting team reviewed numerous projects from both emerging and developed markets to identify examples of successful market-based financing solutions. The Note draws on market feedback received from LTFTF members and engagements with selected industry sources as well as extensive research, which provided the basis for selecting and preparing case studies for a list of 20 examples. Among others, the criteria for selection included size and impact of LTF provision, innovative features, ability to be replicated and geographical diversity, balancing between the different segments of the capital market in emerging and developed markets.

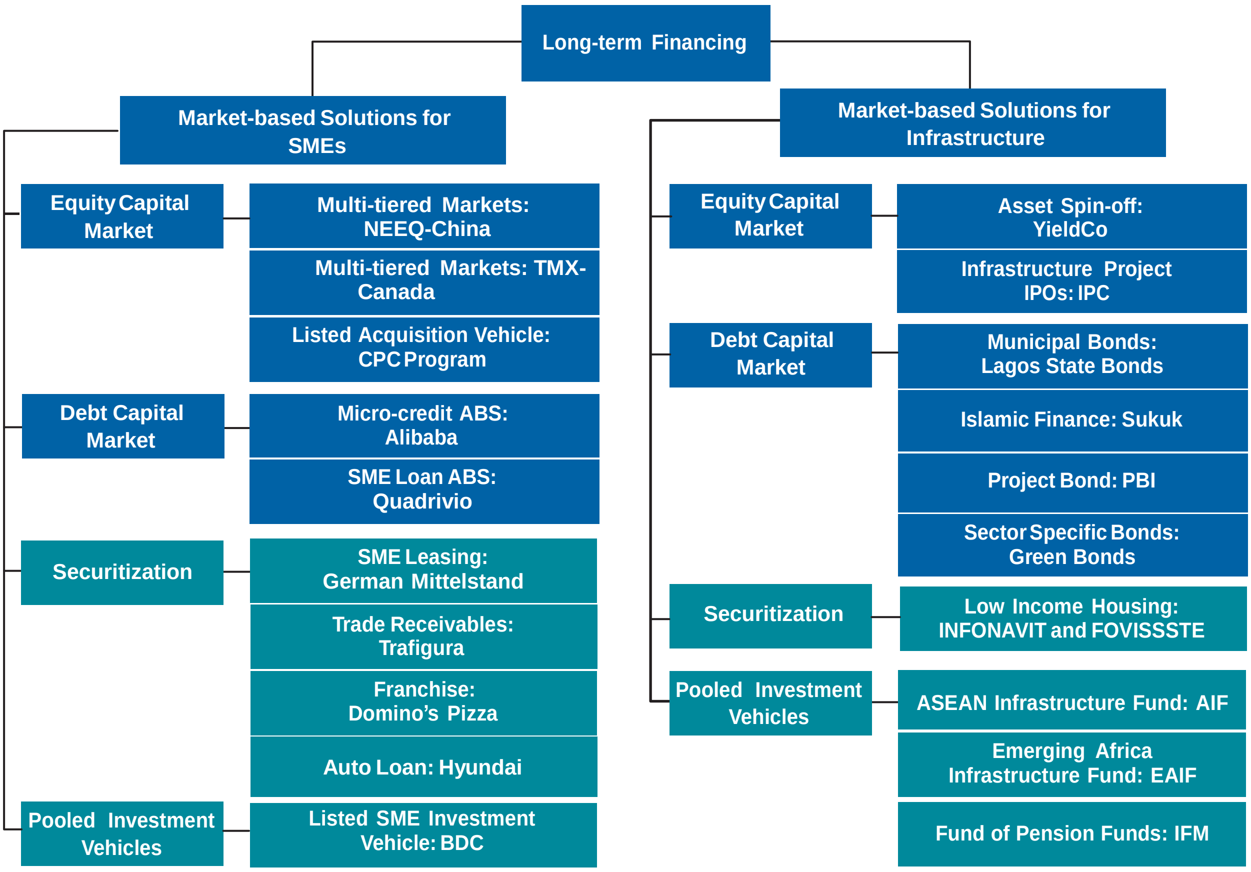
Consistent with the LTFTF's mandate from the IOSCO Board, the Note provides a factual assessment of practical market-based financing solutions through capital markets and does not make recommendations or establish principles related to SME financing or LTF for infrastructure[7].

III. SUMMARY OF CAPITAL MARKET SOLUTIONS

As illustrated in Diagram 1, the Note reviews successful market-based financing solutions for SMEs and infrastructure under four market segments:

Diagram 1

Distribution of Market-Based Financing Solutions by Segments



6 Chairman of the Australian Securities and Investments Commission.

7 The inclusion of the case studies in the Note does not represent endorsement from IOSCO. A non-exhaustive list of potential risks that could be associated with each example has been provided. Investors, regulators and other stakeholders should properly assess risk factors and evaluate the specific political, jurisdictional and economic context in which these examples are successful.

equity capital markets, debt capital markets, securitization and pooled investment vehicles.

The industry consultations and the market-based financing solutions cover many jurisdictions across a wide geographical region as illustrated in Diagram 2, while several case studies reference cross-border activities and/or have regional reach.

development. The latest addition to its multi-tiered market is the National Equities Exchange Quotations (NEEQ), which adds flexibility to China's multi-tiered market for SMEs. As of 30 June 2014, 881 companies were listed on NEEQ, with a total market capitalization of RMB190 billion (USD30.6 billion).

Diagram 2

Distribution of Industry Consultations and Market-Based Financing Solutions by Region

A. Market-based solutions for SMEs

Equity Capital Market

There are three case studies of equity capital market solutions for SME financing, all of which involve multi-tiered markets.

1. **Multi-tiered Markets: NEEQ-China.** China's multi-tiered equity market for SMEs is designed to address the capital raising needs of SMEs of various sizes and at different stages of

2. **Multi-tiered Markets: TMX-Canada.** TMX Group Limited operates multi-tiered equity markets in Canada. Toronto Stock Exchange (TSX), the most senior equity market in Canada, is focused on large and medium-sized issuers while TSX Venture Exchange (Venture) operates a junior equity market that provides equity capital formation opportunities for SME issuers. The junior tier of the multi-tiered exchange structure also serves as a feeder, with a simplified transition to the senior exchange. As of 30 June 2014, there are 2,042

companies listed on Venture, with a total market capitalization of CAD35.1 billion (USD32.9 billion). As of 31 December 2013, 339 issuers trading on TSX are "graduates" from Venture.

3. **Listed Acquisition Vehicle: CPC Program.** The capital pool company program (CPC Program) is a corporate finance vehicle developed by Venture. It provides entrepreneurs with development stage businesses the opportunity to obtain financing from investors with financial market experience. The CPC Program permits an initial public offering (IPO) to be conducted and a Venture listing obtained by a newly created company (the CPC) which has no assets, other than cash, and which has not yet commenced commercial operations. The CPC then uses the funds raised under its IPO to identify and evaluate assets or businesses which, when acquired, will qualify the resulting issuer for a regular listing on Venture. Over 2,400 CPCs have used the CPC Program and 84% have since completed their acquisitions. 663 companies trading on Venture and 90 companies on TSX began as a CPC.

Debt Capital Market

There are two case studies of debt capital market solutions for SME financing.

4. **Micro-credit ABS: Alibaba.** Alibaba provides unsecured micro-lending to SME vendors on its internet and mobile commerce platforms. At the center of its lending operation is a proprietary database of information collected from these platforms and its payment processing arm. Data is analyzed and standardized for its credit approval and loan monitoring processes. Outstanding loans are packaged into asset-backed securities (ABS), with senior tranches sold to investors and tradable on the Shenzhen Stock Exchange. Up to June 2014, Alibaba provided lending services to over 800,000 customers with a cumulative notional value of over RMB200 billion (USD32.2 billion).

5. **SME Loan ABS: Quadrivio.** Quadrivio is an initiative launched by the European Investment Bank (EIB) in association with the European Investment Fund (EIF) to support enhanced debt finance to SMEs. The initiative facilitates SME risk transfer from the originating banks to the capital market. The structure, which is the first joint initiative within the EIB Group in the ABS market, is an example of collaboration between two creditworthy institutions primarily to help alleviate the perceived risks associated with subscribing to a security backed by SME loans. The underlying assets primarily consist of 9,177 SME mortgage facilities and total issuance of the three senior classes of the ABS amounted to EUR390 million (USD541 million).

Securitization

There are four case studies of securitization solutions for SME financing under this category.

6. **SME Leasing: German Mittelstand.** This transaction involves the securitization of receivables from equipment lease contracts with German commercial businesses or self-employed professionals, originated by a leasing company, IKB Leasing GmbH (IKBL). The range of leased assets is broad and can be divided into asset categories including machinery, commercial vehicles, cars, and information technology, office and other equipment. Increased institutional participation, such as by EIB, in the ABS market helps attract new investors and increases the overall funding facility available to SMEs. The senior Class A tranche of the transaction was oversubscribed by 5.5 times while the Class B and C tranches were twice oversubscribed. EIB invested in the senior Class A tranche which provided IKBL with financing amounting to EUR97 million

(USD129 million). The total issuance of the ABS was EUR227.3 million comprising Class A notes amounting to EUR196 million, Class B notes EUR13 million and Class C notes EUR18.3 million[8].

7. **Trade Receivables: Trafigura.** This transaction is a securitization of trade receivables relating to obligors located in various countries for the purchase of commodities. Given the liquidity constraints faced by many financial institutions, Trafigura is able to reduce its reliance on bank backstop liquidity for ongoing funding by securitizing a major portion of its trade receivables. The securitization program is currently funding up to USD3 billion of trade receivables issued with Trafigura's trade clients. The program is the largest of its kind in Europe and is expected to benefit SMEs by facilitating the provision of trade finance for the purchase of key commodities in the production process.

8. **Franchise: Domino's.** This securitization involves the transfer of rights to future cash flows generated from franchise assets to a separate legal entity, which in turn issues securities to investors. Franchise agreements, intellectual property and the right to receive royalties are the most common types of revenue-generating assets underlying a franchise securitization financing. The use of franchise securitization can provide franchisors with an alternative source of cost-effective funding through capital markets. Approximately 96% of Domino's stores are franchised with the majority of the franchisees being SMEs. In 2012, Domino's Pizza Master Issuer LLC – Series 2012-1 raised USD1.675 billion in a private placement transaction.

9. **Auto Loan: Hyundai.** This example is a cross-border ABS transaction in which the senior tranche has been structured to achieve a rating above the sovereign ceiling using a two-tier special purpose vehicle (SPV) structure. The stable performance demonstrated by the securitized pool, which consists of auto loans originated by credit specialist companies, have helped foster investor confidence and allowed issuers such as Hyundai Capital Services (HCS) to access the market on a regular basis with new issues that are well received by international institutional investors. Over the years, HCS has sourced around 15% to 20% of its total funding requirements from the ABS market. The SME portion of auto loans and installment in the pool is usually maintained at around 10% in cross-border transactions and about 70% for domestic transactions.

Pooled Investment Vehicles

There is one example of market-based finance solution for SMEs under this category.

10. **Listed SME Investment Vehicle: BDC.** Business development companies (BDCs) are closed-ended investment funds in the US that are operated primarily for the purpose of investing in, and providing managerial assistance to SMEs and financially troubled businesses. Most BDCs are publicly traded with shares listed on US national exchanges. BDCs provide investment managers, who invest primarily in SMEs, access to permanent capital from the general public while providing investors, including retail investors, a channel to invest in private SMEs without needing to meet any investor qualification requirements. BDCs have about USD70 billion in assets under management as of 30 June 2014.

8 Information Memorandum TSI, IKB Leasing, German Mittelstand Equipment Finance SA, Compartment 2, Monthly Investor Report, August 2014.

B. Market-based solutions for infrastructure

Equity Capital Market

There are two equity capital market solutions for infrastructure in this Note.

11. **Asset Spin-off: YieldCo.** YieldCo, a public listed equity vehicle used by power producers to raise capital, is an emerging asset class in North America. YieldCos are created through the spin-off of power generating assets that have a more stable cash flow profile resulting from credible long-term power purchase agreements and cost structures that are less cyclical. Relatively stable and growing dividend income is attractive for investors and helps issuers raise equity capital for infrastructure assets at a higher valuation. The first wave of YieldCos included three IPOs.

12. **Infrastructure Project IPOs: IPC.** The Infrastructure Project Corporation (IPC) listing framework paved the way for measuring the sustainability of a company's performance on the basis of government concessions secured by an infrastructure project company rather than solely considering parameters such as a track record of profitability. This enables companies involved in infrastructure projects with long gestation periods to raise equity financing through an exchange listing. IPC also provides retail investors the opportunity to invest in dividend-yielding companies as infrastructure project companies with government concessions generally receive a steady inflow of revenue. Despite the challenging environment during the Asian financial crisis in 1997, RM5.7 billion (USD1.47 billion) was raised via IPC listings.

Debt Capital Market

The Note includes four case studies of debt capital market solutions for infrastructure LTF.

13. **Municipal Bonds: Lagos State Bonds.** This is an example of a state sourcing for funds in the capital market through the issuance of municipal bonds to finance infrastructure development projects. A legal framework was established to support this issuance, including the enactment of a new Bond Law and establishment of Irrevocable Standing Payment Orders by the state to guarantee payments to bondholders. In order to boost investor interest and confidence, the issuer makes use of a consolidated debt service account and sinking fund to increase the certainty of payments to bondholders. The Lagos State launched a N275 billion (USD2.32 billion) bond program in 2008, with two issuance series to finance various critical infrastructural projects.

14. **Islamic Finance: Sukuk.** Sukuk are generally referred to as Islamic bonds, but are essentially an asset-based investment whereby the sukuk investor owns an undivided interest in an underlying asset proportionate to the investment and earns a return on that asset. As a result, the element of interest which is not permissible under Shariah is eliminated and any returns on investment are in the form of profits linked to cash flows of an underlying asset. Sukuk can be tailored to fulfill numerous LTF needs in a Shariah permissible manner, allowing it to tap the funding of investors with specific Shariah investment mandates and provide a viable alternative to bonds, including for long-term infrastructure financing. TNB Western Energy Berhad issued a Sukuk Wakalah and Ijarah worth RM3.655 billion (USD1.09 billion) to finance the construction of a power plant.

15. **Project Bond: PBI.** Project bonds are innovative financial instruments used to stimulate capital market financing of infrastructure projects. By enhancing the credit of senior secured project bonds to achieve a credit rating that would be attractive to institutional investors, the Europe 2020 Project Bond Initiative (PBI) aims to

facilitate the delivery of private capital for infrastructure development and minimize funding costs for infrastructure companies. The credit enhancement may take the form of either a funded subordinated debt or an unfunded partial guarantee of senior debt. EIB expects that PBI will mobilize up to EUR4.6 billion (USD 6.3 billion).

16. **Sector Specific Bonds: Green Bonds.** Green bonds are fixed-income securities that raise capital for a project or projects with specific environmental benefits. Green bonds provide investors the opportunity to invest in climate-friendly initiatives without exposure to the risks associated with individual projects. The market for green bonds has previously been dominated by issuances from supranational organizations such as the World Bank. However, in recent years the corporate sector has begun issuing green bonds in considerable volumes. As some investors may have motivations other than pure financial return, asset classes designed to appeal to these motivations may be attractive to such investors. The Climate Bond Initiative, a not-for-profit organization based in London, estimates that the overall green bond market will reach USD40 billion in 2014 and USD100 billion in 2015.

Securitization

There is one case study under this category.

17. **Low Income Housing: INFONAVIT and FOVISSSTE.** Loans originated by INFONAVIT and FOVISSSTE in Mexico, which are funded through mandatory payroll contributions from private sector and government employees, are an important source of mortgage funding for low and middle-income borrowers. The availability of affordable mortgage financing can assist in meeting housing policy objectives. Additionally, this structure creates stable cash flow from high quality loans which provides a sound basis for successful securitizations. Both INFONAVIT and FOVISSSTE are the largest mortgage originators in Mexico with a market share of approximately 70%. INFONAVIT's securitization program CEDEVIS has issued 43 transactions while FOVISSSTE has issued 22 successful securitization transactions through its TFOVI Program.

Pooled Investment Vehicles

There are three case studies relating to pooled investment vehicles for infrastructure LTF.

18. **ASEAN Infrastructure Fund: AIF.** The ASEAN Infrastructure Fund (AIF) is an innovative regional co-operation and integration initiative created to fulfill the large infrastructure financing needs of the Association of Southeast Asian Nations (ASEAN[9]) region. The fund initially pools equity contributions from ASEAN countries and the Asian Development Bank (ADB[10]), followed by hybrid capital in the form of perpetual bonds and eventually through debt issuance via the capital market. In this way, it mobilizes sovereign savings, multilateral development bank (MDB) resources, and taps foreign exchange reserves and global institutional investors through market-based financing. Together with the ADB as the co-financier for every project funded by an AIF loan, it is expected that AIF will generate long-term infrastructure financing exceeding USD13 billion for ASEAN by 2020.

19. **Emerging Africa Infrastructure Fund: EAIF.** The Emerging Africa Infrastructure Fund (EAIF) was established to address the market gap created by the scarcity of long-term debt for

[9] ASEAN is an organization established to promote political and economic co-operation as well as regional stability among its ten member countries comprising Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

[10] The ADB is a multilateral development bank that was founded in 1966 to facilitate economic development of countries in Asia through targeted investments in infrastructure, health care services, financial and public administration systems or helping nations prepare for the impact of climate change. The main devices for ADB assistance are through loans, grants, policy dialogue, technical assistance and equity investments.

private sector-based infrastructure development in Sub-Saharan Africa (SSA[11]). Its objectives include supporting projects that promote economic growth and reduce poverty. EAIF lends on commercial terms to demonstrate the viability of long-term commercial lending into SSA countries. EAIF's long-term lending capacity of up to 15 years is its strength compared to commercial lenders in SSA who cannot grant financing for more than five to seven years. EAIF has grown to become a USD587.02 million fund in 2014 from USD305 million in 2002, when it was established.

20. **Fund of Pension Funds: IFM.** IFM Investors (IFM) is an investment manager owned by 30 of Australia's largest industry-based superannuation funds. It offers a range of pooled superannuation trusts, wholesale unit trusts, limited partnerships and segregated mandates for institutional investors globally. IFM is one of the largest infrastructure investors in the world with total funds under management of AUD19 billion (USD17.9 billion) in infrastructure investments.

IV. SUMMARY OF THEMES FROM THE CASE STUDIES

The examples in this Note are each unique solutions for SME or infrastructure financing. However, common themes can be observed from many of the case studies. Below is a non-exhaustive list of the themes observed.

A. Themes Common to Both SMEs and Infrastructure

Impact of Regulation. The regulatory framework of the market directly impacts the ability and willingness of SMEs and infrastructure project companies to access the capital market. Recent trends have indicated that SMEs are either unwilling or unable to access capital markets[12]. NEEQ-China and TMX-Canada are multi-tiered markets that have specific entry and ongoing regulatory requirements for SMEs. In the case of IPC, listing requirements are tailored for infrastructure project companies as an alternative route for direct listing while the CPC Program caters to the formation of pooled assets that are eligible for listing, which are used to acquire one or more assets or businesses.

Regulatory incentives have also been utilized to influence issuers and investors to participate in SME and infrastructure financing. In the case of Quadrivio, commercial banks benefit from regulatory capital relief by issuing ABS of SME loans. The eligibility of Lagos State Bonds as liquid assets increases institutional participation, particularly by banks. BDCs enjoy a combination of policy and regulatory incentives due to their limited function as pooling vehicles specifically for the purpose of investing in SMEs. The Superannuation Industry (Supervision) Act 1993 provided some of the regulatory pre-conditions for IFM's model.

Improving Financing Conditions. All of the examples in this Note successfully improved the financing conditions for SMEs or infrastructure projects by increasing the availability of financing, diversifying sources of financing and lowering cost of funding. These improved financing conditions may be driven by changes in regulations, efforts to cater to the needs of existing investors, issuers accessing a wider investor base, development of new investors/ intermediaries and development/establishment of new markets.

- **Catering to Existing Investors' Needs.** Further efforts can be made by issuers and intermediaries to cater to investors' needs and

11 Sub-Saharan Africa is, geographically, the area of the continent of Africa that lies south of the Sahara Desert. Politically, it consists of all African countries that are fully or partially located south of the Sahara (excluding Sudan).

12 According to World Federation of Exchanges' "Market Segmentation Survey", the number of micro-cap companies listed in both the Americas and the Europe and the Middle East have decreased in recent years. According to the US IPO Task Force and the European IPO Task Force, long term trends could be observed in the decrease in number of small IPOs in both markets. OECD has published several studies with data and analyses supporting this.

preferences. By targeting or generating assets with steady cash flows, YieldCos and BDCs cater to the needs of the dividend growth investor base. Similarly, IPCs are also regarded as an attractive investment due to the potentially consistent dividend yields. Sukuk and Green Bonds are examples of tailored products that can fulfil specific niche investor requirements, thus providing a viable alternative to traditional bonds. Specifically, Sukuk are structured to attract investments from institutional investors with mandates to invest in Shariah-compliant instruments while Green Bonds are designed to meet the needs of a growing investor base who have an interest in climate friendly investments. IFM caters to the needs of pension funds and other large institutional investors, who have long-dated liabilities and are seeking assets that generate a stable income over a long period.

- **Accessing a Wider Investor Base.** Hyundai, Trafigura and German Mittelstand have widened their investor base by securitizing underlying assets with stable cash flows. The use of cross-currency, cross-border securitization by Hyundai enables it to access offshore foreign currency ABS markets. The listing of companies on equity markets in the case of NEEQ-China, TMX-Canada, IPC, BDC and the CPC Program provides issuers with a wider range of investors including retail investors.

- **Development of New Investors/ Intermediaries.** AIF and EAIF are regional funds which were created to facilitate LTF for infrastructure in the respective targeted regions. IFM facilitates funding from pension funds as well as other long-term, well-capitalized institutional investors into infrastructure financing. Infonavit and Fovissste have state agencies to facilitate private sector investments in securitized residential mortgages issued by state agencies.

- **Development/Establishment of New Markets.** Lagos State Bonds created a new municipal bond market in which pension funds participate alongside commercial banks. Quadrivio and Alibaba are two examples where efforts were made to establish and grow the domestic securitization markets.

Role of Governments and Development Banks: Governments can help catalyze the market for SME securities by encouraging institutional investor participation and promoting or facilitating bank lending to SMEs. Increased participation from development banks in the ABS market enhances perception of the market, attracts new investors, increases the overall funding available to SMEs and alleviates the perceived risk associated with subscribing to a security backed by SME loans such as in the case of Quadrivio.

In order to develop large volumes of infrastructure projects, intervention by development banks and governments can assist in spurring the development of an underdeveloped market sector, however such measures may not be sufficient. A mixture of public and private funding sources with a commercial approach using private sector fund management may be the optimal solution as showcased in the case studies of AIF, EAIF, PBI and Lagos State Bond.

While most of these examples represent national attempts at reducing the gap between supply and demand for LTF, new initiatives such as the AIF and the EAIF have also started developing at regional level. In other parts of the world, such as in the European Union, governments and regulators have also been looking at the best approach to market long-term investment funds on a cross-border basis[13].

[13] The European Venture Capital Regime (EuVECA), the European Social Entrepreneurship Fund Regime (EuSEF) and the European Long Term Investment Fund (ELTIF) Regime are aimed at promoting long-term investment in the wider economy. These three complementary regimes have been designed with lighter touch regulation aimed at attracting key players while also safeguarding investor interests. EuVECA's aim is to stimulate economic growth by increasing investment in research, development, entrepreneurship and innovation, whereas EuSEF aims to provide funding to enterprises whose purpose is to create a positive impact on society. The two regimes have created EU labels for investment funds investing primarily in SMEs and will enable qualifying fund managers to market their schemes to suitable investors throughout the European Economic Area. ELTIF is still in the pipeline and a final vote is expected before the end of the year. Its aim will be to further facilitate the channelling of capital, including from retail investors, into long-term investment projects generally.

Deal Sourcing and Due Diligence. Challenges surrounding deal sourcing and due diligence can be resolved through increased information transparency, leveraging on existing business information and data as well as reliance on partners with specialized knowledge and information. NEEQ-China, TMX-Canada, IPC and YieldCos require standardized initial and ongoing public disclosures of information. Alibaba uses operating, payment and credit history data from its e-commerce platforms to assess potential borrowers for credit approvals. The CPC Program is used by individuals with successful track records of deal sourcing and execution, and allows them time to search and complete a business acquisition. The BDC case study illustrates how experienced investment teams rely, at least partially, on partners who have existing relationships and data on borrowers.

B. SME Specific Themes

Economies of Scale. By utilizing automated processes in its micro-lending operations, Alibaba pools and packages outstanding SME loans into ABS which in turn allows it to grow its micro-lending operation. For the Domino's franchise securitization, standardization is achieved at the business level thereby enabling the franchisor to raise funds from the capital market. In the case of Hyundai, German Mittelstand and Trafigura, standard types of credit are provided to their SME customers and funds are raised through pooling a large number of loans.

Managing Risk. SMEs are generally perceived to be riskier investments than larger corporations. SMEs may also have assets that are unsuited for use as collateral. The examples in this Note have provided solutions to these challenges through the use of collateral-based financing, retention of first loss piece by the issuer, credit enhancement and novel methods for loan monitoring and recovery.

- **Collateral-based Financing.** Quadrivio, Hyundai, German Mittlestand and Trafigura are examples of collateral-based financing using tangible assets to manage the risks of SME financing. However, collateral-based financing can also be secured using intangible assets as in the case of Domino's where the underlying primarily consisted of franchise royalties.

- **Retention of First Loss by the Issuer.** In all of the securitization examples, the first loss risk exposure is retained by the issuer. This incentivizes the issuer, who is also usually the servicer of the portfolio of underlying assets, to actively monitor and manage the portfolio in order to minimize losses for the benefit of investors.

- **Credit Enhancement.** In the case of Quadrivio, the senior tranches of ABS backed by SME loans received higher ratings due to the provision of EIF guarantees.

- **Loan Monitoring and Recovery.** Post-lending, Alibaba is able to monitor and automate early risk warnings using up-to-date data from its integrated electronic platforms. Alibaba's ability to increase the borrower's cost of default provides an effective deterrence for delinquencies and defaults.

C. Infrastructure Specific Themes

Availability of LTF. Infrastructure projects are perceived to be risky due to their long tenure, complexity and the presence of a number of diverse risks including political, construction, operations and interest rate. At the same time, financing requirements for infrastructure projects are stringent. Funding has to be both long-term and stable. As such, infrastructure projects may face challenges in securing LTF. Case studies described in this Note illustrate that despite these difficulties:

- permanent sources of capital can be raised for infrastructure through public equity issuances, as in the case of YieldCos and IPC;
- Sukuk can fulfill long-term debt financing needs as a viable alternative to bonds to

provide greenfield and brownfield infrastructure financing;

- pooled investment vehicles with permanent capital contributions such as EAIF and AIF can be an alternative source of LTF;
- IFM increases the availability of LTF by pooling and investing pension fund assets in infrastructure; and
- Green Bonds can tap sources of funding set aside for specific social responsibility purposes.

Investment Knowledge and Expertise. Given the complexity of infrastructure financing, the lack of investment knowledge and expertise are often obstacles that deter investors. EAIF uses an external fund manager and works with the largest commercial bank in Africa for its investment operations while AIF leverages on the operational and technical expertise of its co-financing partner for project screening and execution. Over the years, IFM has grown its own investment and support operations for infrastructure investing.

Managing and Sharing of Risk with the Private Sector. The perceived high risk related to infrastructure projects can be overcome through risk management and risk sharing arrangements. While few investors are willing to take all types of risks for the entire life of an infrastructure project, more are willing to take on a smaller set of better defined risks. YieldCos manage their risks by including only assets that have eliminated certain risks and are expected to generate more predictable cash flows while EAIF provides a system of risk-sharing where the equity contributions from public sources serve as a first loss protection for private investors. Credit enhancement is another mechanism used to manage risks. In the Sukuk example, investors are assured of repayment through the use of guarantees from the parent company. Deduction of cash flow at source in the case of Lagos State Bond as well as Infonavit and Fovissste increases the certainty of repayments to investors. In addition, in order to attract foreign capital, Lagos State Bond and EAIF both have currency hedging mechanisms in place.

Tackling the Challenge of Scale. The scale of infrastructure financing can be too large for a single investor. Issuers may also favor having a smaller number of investors for the purpose of communications and managing investor relationships. Some of the case studies illustrate the various ways the market has resolved this challenge. AIF, EAIF, IFM and Green Bonds illustrate methods of pooling capital from either heterogeneous or homogenous sets of investors.

MARKET-BASED SOLUTIONS: SMEs

III. MARKET-BASED SOLUTIONS: SMEs

A EQUITY CAPITAL MARKET

1. MULTI-TIERED MARKETS: NEEQ – CHINA

Basic concept

China is in the process of further developing a multi-tiered equity market for SMEs, designed to accommodate issuers of various sizes and needs. The latest addition to the multi-tiered market is the National Equities Exchange and Quotations (NEEQ), popularly known as the "New Third Board", which adds flexibility to China's multi-tiered equity market for SMEs.

Key takeaways

- The multi-tiered equity market is designed to address the capital raising needs of SMEs of various sizes and at different stages of development.
- NEEQ offers flexibility in terms of listing procedures, fundraising, deal arrangements, pricing and trading.
- Potential risks created by NEEQ's listing requirements specific for SMEs are mitigated by investor suitability, disclosure and Chief Agency Broker (CAB) requirements.

Key metrics

- As of 30 June 2014, 881 companies were listed on NEEQ, with a total market capitalization of RMB190 billion (USD30.6 billion[14]).

Background

NEEQ, which was launched in 2013 in Beijing, is the newest addition to China's multi-tiered equity market. NEEQ complements the more senior tiers of the multi-tiered equity market, comprising the Main Board, SME Board and Growth Enterprise Board (GEB), as illustrated in Diagram 3. The Main Board was established in 1990 and consists of the Shanghai Stock Exchange (SSE) and Shenzhen Stock Exchange (SZSE). It targets large and medium-sized enterprises and has more stringent listing criteria. The SME Board was later established as an independent segment of the Main Board by SZSE in 2004. The SME Board targets medium-sized enterprises and has listing criteria similar to the Main Board. The Growth Enterprise Board was launched in 2009. It is also part of SZSE and targets innovative and high-growth companies. Regional equity markets, the more junior tier of the multi-tiered equity market, are provincial exchanges that provide equity and bond financing services for local enterprises, especially micro, small and medium-sized enterprises. Case Appendix "A" is a summary of some of the quantitative listing criteria of China's multi-tiered equity market.

The newly launched NEEQ was established upon obtaining State Council approval in accordance with the Securities Law and is China's third national equity trading venue[15]. At the time of inception, NEEQ was mainly designed for innovative, start-up and high-growth SMEs that have not reached the listing criteria of the SSE and SZSE. With streamlined procedures and flexible listing requirements, it has quickly grown into an important component of China's multi-tiered capital market.

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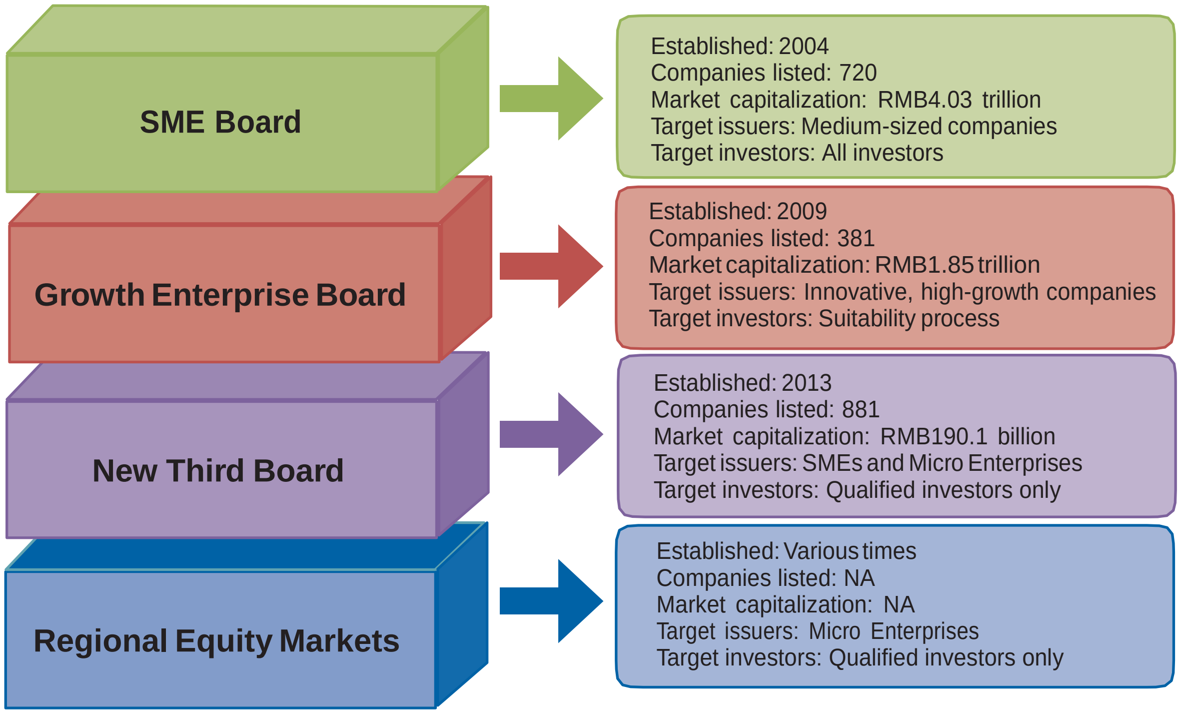
14 All US dollar amounts herein are based on an exchange rate of RMB1: USD0.1612.
15 After SSE and SZSE.

Diagram 3

Multi-tiered Equity Market for SMEs in China[16]



Note: The Main Board of SSE and SZSE are not shown in the diagram. As of 30 June 2014, the Main Board had 1,439 listed companies and a total market capitalization of RMB18.53 trillion (USD2.99 trillion).

Companies listed on NEEQ are subject to the same regulations as other non-exchange listed public companies in China. The legal framework governing the operations of NEEQ consists of relevant laws as well as Chinese Securities Regulatory Commission (CSRC) and NEEQ rules and guidance. The rules and guidance of NEEQ were tailored to the characteristics and risk profiles of SMEs, and drew upon the experience of equity trading venues both at home and abroad. To date, all such rules have been implemented on a trial basis and will be reviewed and revised according to the needs of the market and economy.

NEEQ has separate approval processes for listing and issuance. There are no quantitative criteria in terms of profits for listing on the NEEQ. However, companies must meet requirements relating to corporate governance, information disclosure and investor suitability[17]. NEEQ performs a disclosure-based review and approval for company listings. The low barrier to listing provides easy access for SMEs and allows for market-driven outcomes. NEEQ offers listed companies the flexibility of when and how to raise funds. Companies on NEEQ can choose to offer securities at or after the time of listing. If the number of company shareholders post-issuance is not above 200, the issuance can be filed with NEEQ. However, CSRC approval is required for issuances with more than 200 shareholders post-offering.

Besides common stocks, companies will also have the option to issue preferred shares, corporate bonds or other financial instruments and have the

16 Source: CSRC, data as of 30 June 2014.

17 In addition, the number of new investors in each issuance is limited to 35.

discretion to structure other financing arrangements. Subscriptions can be in cash or in kind. Further, trading can be conducted through market-making, negotiation or auction (upcoming) to accommodate the diversity of listed companies in terms of size, ownership structure and development cycle. Listed companies can select the method that best suits them and follow the established procedures for trading.

Given the flexibility of NEEQ and the fact that most of its listings will be SMEs with potentially higher risks, the regulatory emphasis is on investor suitability, ongoing support, sponsorship of the CAB and disclosure requirements. Investors, other than shareholders, directors, supervisors, senior executives and core employees of the listed companies, need to meet specified suitability requirements[18]. Other investors can invest into NEEQ through professionally managed funds and other pooling vehicles.

NEEQ has adopted a CAB system to align the interests and responsibilities of the broker with public investors, thereby incentivizing investment banks to help grow SMEs and nurture the NEEQ market. Sponsorship by a CAB is required to list on NEEQ. CABs have the discretion to select which companies to list and the obligation to ensure that selected companies are ready for listing through due diligence and internal assessment. CABs are also required to provide ex-ante guidance to ensure the standardization and compliance of ongoing disclosure by listed companies. The intention is for CABs, as the sell side, to choose good listing applicants and help improve their corporate value through long-term advisory services and guidance. NEEQ encourages CABs to establish long-term partnerships with the listed companies they sponsor, providing various services including financing, market-making, mergers and acquisitions and restructuring. The reputation and interests of CABs are closely tied to the quality and development of listed SMEs.

NEEQ carries out differentiated regulation of CABs. Securities firms need to file with NEEQ to become a CAB but they can apply to be engaged in all or selected parts of the broker business on NEEQ[19]. NEEQ focuses on procedural and behavioral regulation of CABs.

Issuers provide initial and ongoing disclosures through NEEQ's electronic platform. Companies are expected to comply with NEEQ's requirements and templates for disclosure of essential information in a concise manner. NEEQ makes ex-post inspections of disclosure and, where necessary, will request amendments or supplementary disclosures. In the case of a violation, NEEQ will take self-regulatory action and refer serious cases to the CSRC.

CSRC and the exchanges are looking to further develop the multi-tiered equity market by better connecting the various tiers of the market, including through policies to facilitate the graduation of NEEQ-listed companies to the more senior tiers of the market. To increase transparency and efficiency, NEEQ is also exploring web-based application, review and communications.

Challenges and solutions provided

SMEs represent 60% of GDP, 50% of tax revenues, 80% of job creation and 82% of new products in China. Yet, they are underserved by the capital market due to their small scale, vulnerability to external risks, lack of information and track record, and inconsistent and often low funding needs. NEEQ provides a national venue with low barriers to entry and flexible arrangements for SMEs to raise capital and gain early access to the capital market. By lowering the barriers to entry, the goal is to decrease

18 Entry criteria for institutional investors: securities firms, insurance companies, securities investment funds, private equity funds, venture capital, Qualified Foreign Institutional Investors, corporate annuity institutions and corporations/partnerships with RMB5 million (USD0.8 million) of registered or paid in capital. Entry criteria for natural persons: minimum RMB5 million worth of securities assets, minimum 2 years of experience in securities investment or equivalent.

19 Pursuant to the *Detailed Rules for the Administration of Chief Agency Brokers on the NEEQ*.

the fixed and ongoing regulatory cost of listing. Qualified NEEQ-listed companies can also decide if and when they would like to go public on SSE or SZSE.

China has a large number of private equity and venture capital firms that invest in start-up and high-growth SMEs. However, prior to NEEQ, unless an SME went public, there was no national platform for shareholders in SMEs to exit. NEEQ provides liquidity both as a primary market and a trading venue.

In order to have a sustainable equity raising platform for SMEs, it is important to have a sound investor base. NEEQ's current higher barrier for entry for investors is for investor protection, but also serves to develop a mature, professional and diversified investor base for SMEs.

Intermediaries and professional service providers also play a key role in developing a sustainable market place for SME financing. NEEQ provides a training ground and opportunities for professional financial service providers including CABs and others.

Why it is successful

NEEQ has achieved initial success in providing financing for SMEs due to its ability to satisfy the demands of various parties involved. Firstly, there are a large number of SMEs that require funding but cannot access IPO or banking channels. NEEQ provides these SMEs with a lower cost listing opportunity, as well as enhanced visibility and easier access to finance. Secondly, NEEQ may provide liquidity to earlier investors in the SMEs, including private equity and venture capital funds. Thirdly, CABs and other professional service providers are willing to serve this market in exchange for opportunities in the future. At the same time, NEEQ allows new investors to participate in the opportunities these SMEs provide through a compliant, sponsor-driven, transparent platform.

Potential risks

The lower barriers to entry could lead to greater variation in the quality of listed companies on NEEQ as compared to the senior tiers of the market. The flexibility of listing procedures, fundraising, deal arrangements, pricing and trading on NEEQ may also lead to more complexity and less standardization for the market. Given this, intermediaries, qualified investors and regulators need to learn and properly understand the risks relating to different tiers of the market in order to properly manage them. As the number of listings grows on NEEQ, search cost for investors will increase. It is therefore important to implement the web-based system to increase transparency and efficiency. Finally, given CABs serve as a critical component of NEEQ, regulators need to strike a proper balance between attracting and nurturing CABs and having adequate transparency and oversight of their performance.

CASE APPENDIX A

Summary of China's Multi-Tiered Equity Exchange Listing Requirements

	NEEQ	GEB	SME & Main Board
Continuous operation	2 years	3 years	3 years
Profit	–	Profits for the last two years on a rising trend, with an aggregate amount of not less than RMB10 million; or, profit for the latest year of not less than RMB5 million; operating income for the latest year of not less than RMB50 million; and operating income growth for the last two years of not lower than 30%.	Profits for the last three years with an aggregate amount of not less than RMB30 million.
Cash flow	–	–	Cumulative cash flows from operating activities for the last three years exceeding RMB50 million, or cumulative operating income for the last three years exceeding RMB300 million.
Net assets	–	Minimum net assets of RMB20 million at the end of the latest year.	Intangible assets not exceeding 20% of the net assets at the end of the latest year.
Share capital	–	Minimum share capital of RMB30 million after issuance.	Minimum share capital of RMB30 million before issuance, and minimum share capital of RMB50 million after issuance.

2. MULTI-TIERED MARKETS: TMX – CANADA

Basic concept

TMX Group Limited operates "tiered" equity markets in Canada. Toronto Stock Exchange (TSX), the most senior equity market in Canada, is focused on large and medium-sized issuers. TSX Venture Exchange (Venture) operates a junior equity market that is focused on small and medium-sized issuers. Venture also operates NEX, a separate board that provides a trading forum for listed companies that have fallen below Venture's ongoing listing standards.

Key takeaways

- Tiered market structure provides equity capital formation opportunities for smaller issuers.
- In a number of areas, initial listing requirements and ongoing requirements have been tailored for the junior market.
- Investors in companies on the junior exchange have reduced levels of protection in certain areas such as disclosure and governance.
- Junior tier of the multi-tiered exchange structure serves as a feeder, with a simplified transition to the senior exchange.

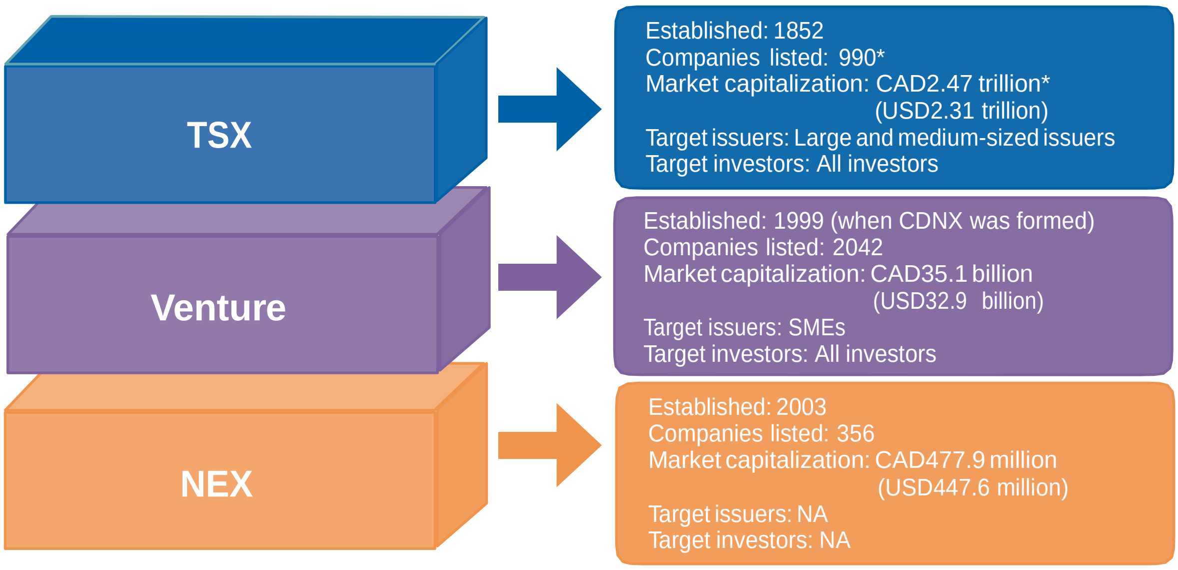
Key metrics

- As of 30 June 2014, 3,388 issuers are listed on TSX, Venture and NEX[20] with a combined market capitalization of more than CAD2.5 trillion (USD2.34 trillion[21]).

Background

Growth of Canadian SMEs is supported through tiered equity markets in Canada. TSX is an internationally recognized, senior equity market while Venture is an equity market focused on early stage companies. Venture also operates NEX, a separate board that provides a trading forum for listed companies that have fallen below Venture's ongoing listing standards[22]. Venture-listed companies that have low levels of business activity or have ceased to carry on active business trade on NEX. Diagram 4 illustrates the TMX Group's tiered equity markets

Diagram 4
Multi-tiered Equity Market in Canada



** Excludes 302 Exchange Traded Products and 209 Structured Products*

20 Excludes 302 Exchange Traded Products and 209 Structured Products.
21 US dollar amounts herein are based on an exchange rate of CAD1:USD0.9367.
22 Only companies that were formerly listed on TSX or Venture and fail to meet Venture's ongoing listing standards are eligible to list on NEX.

and provides information concerning each tier as of 30 June 2014.

Venture listing requirements are tailored to the issuer's industry sector, stage of development, financial performance and operational resources. TSX's higher requirements for listing, disclosure and corporate governance are appropriate for established issuers. Compared to TSX, Venture has lower initial listing and ongoing listing requirements and decreased disclosure and corporate governance requirements. Attached as Case Appendix "B" are charts summarizing the initial listing standards for companies listed on Venture and TSX.

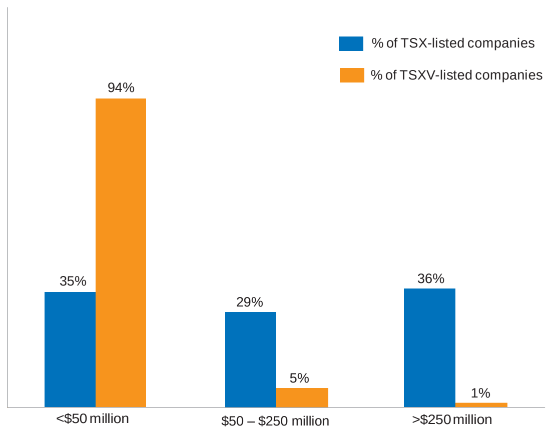
The listing requirements of TSX and Venture provide a simplified listing process for issuers that graduate through tiers. The TSX Company Manual provides that Venture-listed applicants for listing on TSX may be exempted from some of TSX's initial listing requirements such as: (i) filing of certain documentation; (ii) the requirement to be sponsored by a participating organization; and (iii) payment of the required application fee[23]. NEX-listed companies that develop their businesses and are able to meet Venture's standards are no longer eligible for listing on NEX, and can apply for a re-listing on Venture. Depending on the nature of the business reactivation (for example, if the company is continuing in the same business with the same principals), Venture may elect to permit a NEX-listed company to re-list based on Venture's ongoing listing requirements rather than its initial listing requirements.

Challenges and solution provided

The development of tiered equity markets in Canada allows each tier to focus on issuers at different stages of growth. Chart 1 shows the distribution of companies listed on the TSX and Venture by market capitalization. As of 31 December 2013[24], 94% of Venture-listed issuers had market capitalization of less than CAD50 million (USD47 million), whereas 29% of TSX-listed issuers had market capitalization of between CAD50-250 million (USD47 million-235 million) and 36% of TSX-listed issuers had market

Chart 1

Market capitalisation of TSX and Venture-listed companies



capitalization greater than CAD250 million (USD235 million).

The initial and ongoing listing requirements of Venture are less onerous than those of TSX and therefore Venture generally attracts junior issuers that are unable to meet TSX listing requirements. Similarly, Venture-listed companies that have low levels of business activity or have ceased to carry on active business will be de-listed from Venture and can trade on NEX. As a result, each tier has its own risk profile associated with the stage of development of the issuers it lists. This also serves to maintain the quality and reputation of issuers on each tier.

Costs to list and sustain an issuer in good-standing can negatively impact SMEs. TMX's tiered equity markets provide cost-effective listing alternatives for SMEs. Listing fees on TSX range from CAD10,000-200,000 (USD9,400-188,000) while listing fees on Venture range from CAD7,500-40,000 (USD7,050-37,600). By contrast, NEX charges a single quarterly listing maintenance fee of CAD1,250 (USD1,175), payable on the first business day of each quarter. Generally, because of the reduced filing and corporate governance requirements applicable to Venture-listed issuers, the cost of maintaining a listing on TSX is greater than Venture.

23 Section 338.1 of the TSX Company Manual.
24 US dollar amounts are based on the exchange rate of CAD1:USD0.9402.

Why it is successful

The tiered structure of its equities markets provides certain advantages to SMEs. One advantage of this structure is that it provides flexibility to issuers to choose where to list based on the size and operations of the issuer.

Another advantage of the TMX Group's tiered equity markets is that as Venture-listed issuers grow they can "graduate" to TSX if they meet TSX's higher requirements. As of 31 December 2013, 339 issuers trading on the TSX are graduates from Venture. Chart 2 shows the number of new companies, excluding investment funds and exchange traded funds, listed on TSX and Venture from 2008 to 2013. Chart 3 shows the percentage of new listings on TSX that are graduates from Venture.

One further advantage that the tiered equity markets structure provides is a simplified listing process for issuers that graduate through tiers. TSX has confidence in the listing requirements and processes of Venture. On this basis, TSX may exempt issuers graduating from Venture from certain filing requirements and the requirement to have a third party sponsor or vouch for the applicant. TSX Group reports that its market structure has created a highly successful feeder system for listings on TSX[25]. Further, as of 31 December 2013, 20% of the S&P/TSX Composite Index constituents are graduates from Venture.

Other advantages of its tiered equity market structure cited by TMX Group are: (i) that it provides issuers with consistent exposure to investors and financial advisory agents as they advance through tiers; (ii) small issuers listed on Venture can benefit from the reputation and brand recognition of TMX Group; and (iii) listings provide investors with a clear indication of investment risk based on tier.

NEX issuers benefit from the support and visibility provided by a listing and trading environment tailored to their needs, while the profile and reputation of Venture issuers is enhanced as a result of the overall improved quality of the main TSX Venture stock list.

Chart 2
Number of new listing on TSX and Venture

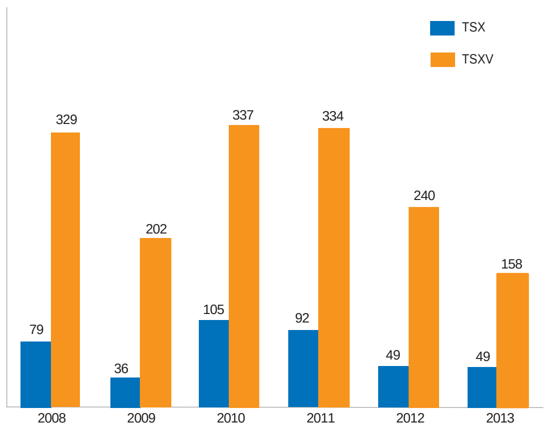
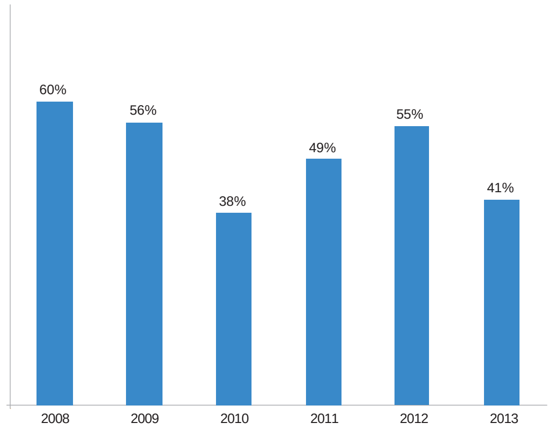


Chart 3
Percentage of new TSX listings that are graduates from Venture



25 From 1 January 2000 to 31 December 2013, 583 companies graduated from Venture to TSX, compared to 73 companies that graduated in the same period from AIM to the London Stock Exchange.

Potential risks

Investments in issuers listed on Venture are inherently more risky than investments in issuers on TSX. Similarly, because companies that trade on NEX have low levels of business activity or have ceased to carry on an active business, an investment in issuers traded on NEX is highly speculative. Securities of issuers listed on Venture are also less liquid than securities of issuers listed on TSX and securities of issuers that trade on NEX have significantly lower liquidity than issuers listed on Venture[26].

Another risk associated with tiered equity markets is an extension of specialization across each tier. For example, TSX has a reputation as an exchange that specializes in resources issuers. Arguably, this encourages smaller issuers that one day hope to obtain a TSX listing to first list on Venture and reinforces specialization across each tier. The negative effect that specialization of this type can have across tiered equity markets is illustrated in Chart 3. In 2012 and 2013, Venture experienced a significant drop in new listings. This drop is mainly due to the drop in global commodity prices which have had a negative effect on the economic feasibility of many resource issuers.

[26] The average daily trading volume on TSX for 2013 was 620,098,862 securities while the average daily trading volume for Venture and NEX in 2013 was 288,849,341 securities and 4,225,294 securities, respectively.

CASE APPENDIX B

Summary of TSX Venture Exchange Initial Listing Requirements

<table>
<tr><th>Initial Listing Requirements</th><th>TSX Venture Tier 1 Industrial / Technology / Life Sciences</th><th>TSX Venture Tier 2 Industrial / Technology/ Life Sciences</th><th>TSX Venture Tier 1 Real Estate or Investment</th><th>TSX Venture Tier 2 Real Estate or Investment</th></tr>
<tr><td>Net Tangible Assets, Revenue or Arm's Length Financing (as applicable)</td><td>CAD5,000,000 net tangible assets or CAD5,000,000 revenue

If no revenue, two year management plan demonstrating reasonable likelihood of revenue within 24 months</td><td>CAD750,000 net tangible assets or CAD500,000 in revenue or CAD2,000,000 arm's length financing

If no revenue, two year management plan demonstrating reasonable likelihood of revenue within 24 months</td><td>Real Estate:
CAD5,000,000 net tangible assets

Investment:
CAD10,000,000 net tangible assets</td><td>CAD2,000,000 net tangible assets or CAD3,000,000 arm's length financing</td></tr>
<tr><td>Adequate Working Capital and Capital Structure</td><td>Adequate working capital and financial resources to carry out stated work program or execute business plan for 18mo. following listing; CAD200,000 unallocated funds</td><td>Adequate working capital and financial resources to carry out stated work program or execute business plan for 12mo. following listing; CAD100,000 unallocated funds</td><td>Adequate working capital and financial resources to carry out stated work program or execute business plan for 18mo. following listing; CAD200,000 unallocated funds</td><td>Adequate working capital and financial resources to carry out stated work program or execute business plan for 12mo. following listing; CAD100,000 unallocated funds</td></tr>
<tr><td>Property</td><td colspan="2">Issuer has significant interest in business or primary asset used to carry on business</td><td colspan="2">Real Estate:
Issuer has significant interest in real property

Investment:
No requirement</td></tr>
<tr><td>Prior Expenditures and Work Program</td><td colspan="2">History of operations or validation of business</td><td>Real Estate:
No requirement

Investment:
Disclosed investment policy</td><td>Real Estate:
No requirement

Investment:
(i) disclosed investment policy and
(ii) 50% of available funds must be allocated to at least 2 specific investments</td></tr>
<tr><td>Management and Board of Directors</td><td colspan="4">Management, including board of directors, should have adequate experience and technical expertise relevant to the company's business and industry as well as adequate public company experience. Companies are required to have at least two independent directors.</td></tr>
<tr><td>Distribution, Market Capitalization and Public Float</td><td>Public float of 1,000,000 shares; 250 public shareholders each holding a board lot and having no resale restrictions on their shares; 20% of issued and outstanding shares in the hands of public shareholders</td><td>Public float of 500,000 shares; 200 public shareholders each holding a board lot and having no resale restrictions on their shares; 20% of issued and outstanding shares in the hands of public shareholders</td><td>Public float of 1,000,000 shares; 250 public shareholders each holding a board lot and having no resale restrictions on their shares; 20% of issued and outstanding shares in the hands of public shareholders</td><td>Public float of 500,000 shares; 200 public shareholders each holding a board lot and having no resale restrictions on their shares; 20% of issued and outstanding shares in the hands of public shareholders</td></tr>
<tr><td>Sponsorship</td><td colspan="4">Sponsor Report may be required</td></tr>
</table>

Summary of Toronto Stock Exchange Initial Listing Requirements

Minimum Listing Requirements	TSX Non-Exempt Technology Issuers	TSX Non-Exempt Research & Development Issuers	TSX Non-Exempt Forecasting Profitability	TSX Non-Exempt Profitable Issuers	TSX Exempt Industrial Companies
Earnings or Revenue			Evidence of pre-tax earnings from on-going operations for the current or next fiscal year of at least CAD200,000	Pre-tax earnings from on-going operations of at least CAD200,000 in the last fiscal year	Pre-tax earnings from on-going operations of at least CAD300,000 in the last fiscal year
Cash Flow			Evidence of pre-tax cash flow from on-going operations for the current or next fiscal year of at least CAD500,000	Pre-tax cash flow of CAD500,000 in the last fiscal year	Pre-tax cash flow of CAD700,000 in the last fiscal year, and anaverage of CAD500,000 for the past 2 fiscal years
Net Tangible Assets			CAD7,500,000	CAD2,000,000	CAD7,500,000
Adequate Working Capital and Capital Structure	Funds to cover all planned development expenditures, capital expenditures, and general & administrative (G&A) expenses for 1 year	Funds to cover all planned R&D expenditures, capital expenditures and G&A expenses for 2 years	Working capital to carry on the business, and an appropriate capital structure		
Cash in Treasury	Min. CAD10 million in the treasury, with majority raised by prospectus offering	Min. CAD12 million in the treasury, with majority raised by prospectus offering			
Products & Services	Evidence that products or services at an advanced stage of development or commercialization and that management has the expertise and resources to develop the business	Min. 2 year operating history that includes R&D activities. Evidence of technical expertise and resources to advance its research and development programs			
Management and Board of Directors	Management, including the board of directors, should have adequate experience and technical expertise relevant to the company's business and industry as well as adequate public company experience. Companies are required to have at least two independent directors.				
Public Distribution and Market Capitalization	1,000,000 free trading public shares CAD10,000,000 held by public shareholders 300 public shareholders each holding a board lot Minimum CAD50 million market capitalization	1,000,000 free trading public shares CAD4,000,000 held by public shareholders 300 public shareholders each holding a board lot			
Sponsorship	Generally required				Not required

3. LISTED ACQUISITION VEHICLE: CPC PROGRAM

Basic concept

The capital pool company program (the CPC Program) is a corporate finance vehicle developed by the TSX Venture Exchange (Venture) that provides entrepreneurs, with development stage businesses, the opportunity to obtain financing from investors with financial market experience and a listing on Venture. The CPC Program permits an IPO to be conducted and a Venture listing obtained by a newly created company which has no assets, other than cash, and which has not yet commenced commercial operations (the CPC). The CPC then uses the funds raised under its IPO to identify and evaluate assets or businesses which, when acquired, will qualify the resulting issuer for a regular listing on Venture (a Qualifying Transaction)[27].

Key takeaways

- IPO investors in the CPC base their investment decision on the reputation and track record of the CPC's founders.
- Addresses the financing needs of smaller issuers that otherwise have difficulty attracting the interest of investment bankers.
- Regulation that aligns the interests of the CPC founders with public investors, limits the amount that can be raised by the CPC and the timeframe within which it can complete its Qualifying Transaction effectively manages the risks associated with this structure.

Key metrics[28]

- Since inception of the CPC Program, 2,407 CPCs have used the CPC Program and 84% have completed their Qualifying Transaction.
- In the last 10 years, CAD490 million (USD459 million[29]) in IPO capital has been raised through the CPC Program.
- 663 companies trading on Venture began as a CPC and 90 companies trading on Toronto Stock Exchange, the senior equity market in Canada operated by TMX Group Limited, began as a CPC.
- The CPC Program has become the preferred method for companies to go public on Venture.

Background

Venture, an equity market focused on early stage companies, supports the growth of Canadian SMEs through the CPC Program. The CPC Program is governed by Venture Policy 2.4 Capital Pool Companies (the CPC Policy)[30].

The CPC Program is a two-stage process. In the first stage, individuals with acceptable business and public company experience (the Founders) incorporate and invest in a shell company. The CPC files a preliminary prospectus with each of the securities regulatory authorities (SRAs) in the jurisdictions in which the proposed offering will be made. The CPC prospectus describes the CPC Program, the Founders and the CPC's intention to identify and complete a Qualifying Transaction. At the same time as the filing of the preliminary prospectus, the CPC must also apply to be listed on Venture. The IPO is completed once a receipt for the final CPC prospectus has been received. After the closing of the IPO[31] and the filing of final documentation with Venture, the securities of the CPC will be listed on Venture[32].

In stage two of the CPC Program, the CPC must, within 24 months of its IPO, identify and enter into an agreement in principle, and complete a Qualifying Transaction. The Qualifying Transaction can consist of the acquisition of one or more assets or businesses provided that, upon completion of the acquisition

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27 This is distinct from the more conventional situation where: (i) the issuer grows its business to the point where it is able to attract the interest of investment bankers; (ii) the bankers sell the issuer's securities to the public as part of the issuer's IPO; and (iii) the issuer obtains a concurrent listing of its securities.
28 As of 30 June 2014.
29 All U.S. dollar amounts are based on an exchange rate of CAD1: USD0.9367.
30 http://www.tmx.com/en/pdf/Policy2-4.pdf
31 The minimum price for the IPO shares is CAD0.10.
32 CPC listings on Venture are identified by the suffix ".P" attached to the ticker symbol.

and any other concurrent transaction (such as a private placement or prospectus offering), the CPC meets Venture listing requirements. The CPC Program requires that the CPC prepare a disclosure document with prospectus-level disclosure on the CPC and the business or assets to be acquired under the Qualifying Transaction which must be approved by Venture. If the Qualifying Transaction requires shareholder approval[33], the disclosure document will be an information circular that will be mailed to shareholders of the CPC. Otherwise, the disclosure document is generally a filing statement[34]. After shareholder approval is obtained, if required, and the Qualifying Transaction has been completed, the issuer will be listed as a regular issuer on Venture[35].

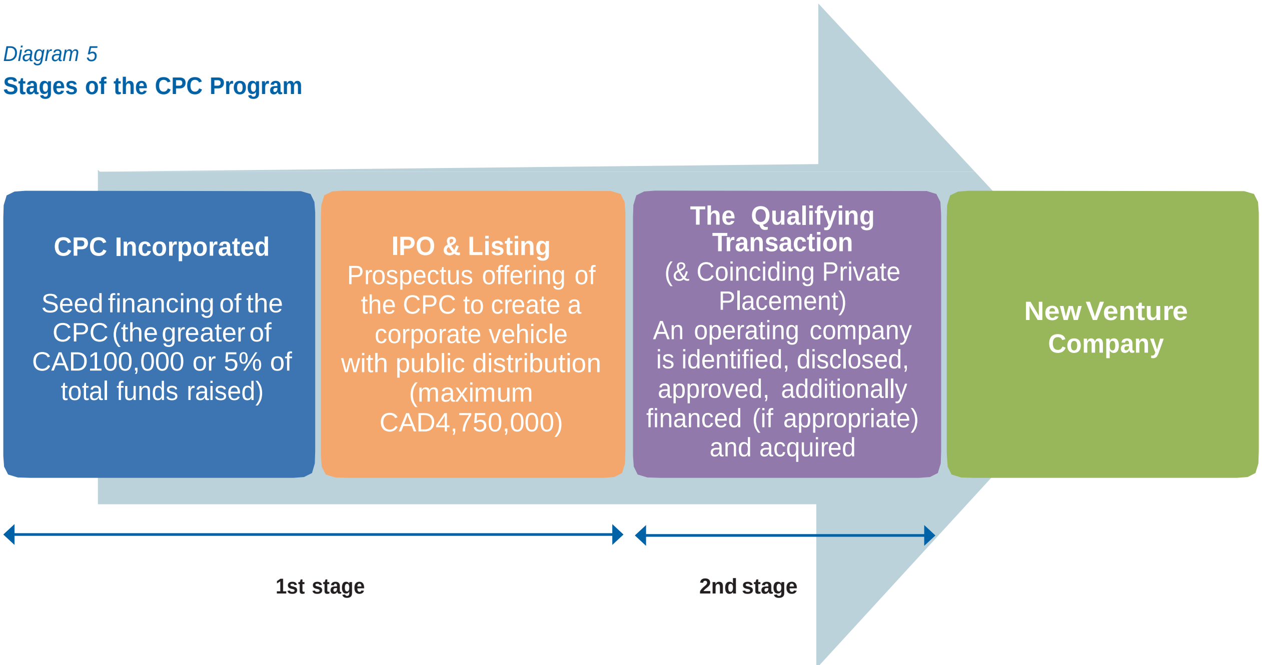
The two stages of the CPC Program are illustrated in Diagram 5.

In the event that a Qualifying Transaction has not been completed within 24 months, the CPC can apply to list on NEX, a separate board of Venture that provides a trading forum for listed companies that have fallen below Venture's ongoing listing standards[36]. Otherwise, the CPC will be de-listed from Venture altogether. Listing on NEX is subject to minority shareholder approval and cancellation of a portion of the Founders shares.

Challenges and solution provided

Seed capital is important for many smaller issuers, yet smaller issuers may have difficulty attracting the interest of traditional underwriters when going public. Under the CPC Program, this financing gap can be filled by using a CPC (or shell company) that goes public. The program gives SMEs access to public financing without the underwriting risk of a traditional IPO as investors in the CPC base their investment decision on the reputation and track record of the CPC's Founders. Further, entrepreneurs who may lack business or public company experience also benefit from the financial market and business experience of the Founders of the CPC.

Diagram 5
Stages of the CPC Program



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33 The Qualifying Transaction must be approved by the board of directors of the CPC. The CPC Policy does not require that the Qualifying Transaction be approved by shareholders unless it is a non-arm's length transaction, in which case the transaction must be approved by disinterested shareholders. The Qualifying Transaction will typically be structured so that shareholder approval is not required under corporate law (for example, it will take the form of a share acquisition rather than an amalgamation or plan of arrangement).

34 In certain circumstances, the CPC will be required to file a prospectus in respect of its Qualifying Transaction.

35 The ".P" suffix will be removed from the resulting issuer's ticker symbol to indicate that the issuer is no longer a CPC.

36 NEX issuers have the opportunity to refinance, reactivate or reinvent themselves in order to re-list on Venture provided they meet Venture listing requirements.

A program that allows for a public financing of a shell company which is followed by a search for an appropriate business acquisition could be subject to abuse. As such, the CPC Program has detailed rules aimed at preventing abuse of the program[37], including rules relating to the Founders, the amount and use of proceeds raised by the CPC, the types of securities that can be issued by the CPC and the escrow of certain securities of the CPC.

The CPC Policy aligns the interests of the Founders with public investors by setting minimum and maximum investment levels for the Founders both on an individual and aggregate basis[38]. It also sets a minimum share price at which Founders can invest in shares of the CPC[39].

The CPC Policy also prevents the CPC Program from being abused by prohibiting the CPC from making payments of any kind to a non-arm's length party to the CPC such as the Founders, or to a non-arm's length party to the Qualifying Transaction including any remuneration, loans, deposits or similar payments.

The CPC Program contains limits on the aggregate amount that is at risk in respect of any one CPC. The maximum aggregate proceeds raised by the CPC from the issuance of Founders shares, IPO shares and any associated private placement is limited to CAD5 million (USD4.7 million). The CPC Policy also limits the use of these proceeds. The policy expressly identifies appropriate expenditures (Approved Expenses) that can be made by the CPC in relation to the identification and evaluation of assets or businesses prior to completion of the Qualifying Transaction. It also limits the amount that can be used for purposes other than Approved Expenses[40] including:

- listing and filing fees;
- other costs for the issuance of securities (included legal and audit expenses) relating to the preparation and filing of the CPC prospectus; and
- general and administrative expenses.

The CPC Policy prescribes the types of securities that can be issued by the CPC[41] and limits subscription to the IPO shares[42]. In addition, Venture requires that the Founders, and certain other non-arm's length parties, maintain their investment in the CPC shares for a reasonable period of time after the Qualifying Transaction is completed by requiring that their CPC shares be held in escrow[43].

Why it is successful

The CPC Program has been very successful for Venture. Since its inception in 1986[44], 2,407 CPCs have been created and 84% have completed their Qualifying Transaction. As at 30 June 2014, 663 companies trading on Venture began as a CPC[45] and 90 companies trading on Toronto Stock Exchange, the senior equity market in Canada operated by TMX Group Limited, began as a CPC[46]. Further, the CPC Program has become the preferred method for companies to go public on Venture. Chart 4 shows the number of new listings on Venture from 2008 to

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37 According to a recent study of the CPC Program, its adoption has "significantly lowered the incidence of fraud in the Canadian junior equity market". See J. Ari Pandes and Michael J. Robinson, "Is Effective Junior Equity Market Regulation Possible?" (2014) 70:4 Financial Analysts Journal.

38 In the aggregate, Founders must invest the greater of (i) CAD100,000 (USD93,670) and (ii) 5% of the aggregate of all proceeds received by the CPC on the date of its final Prospectus. Each director and officer of the CPC must invest at least CAD5,000 (USD4,684) in the CPC. The maximum amount that Founders can invest in shares issued at less than the IPO share price is CAD500,000 (USD468,350).

39 The minimum price of the Founders' shares must be the greater of CAD0.05 and 50% of the price of the IPO shares.

40 Such expenses cannot be more than the lesser of 30% of the gross proceeds raised by the CPC or CAD210,000 (USD196,707).

41 The CPC can issue IPO shares, Founders shares, incentive stock options (up to 10% of the CPC shares outstanding at the IPO) and agent's options (up to 10% of the number of IPO shares and with an exercise price that is not below the IPO price).

42 No purchaser can individually acquire more than 2% of the IPO shares and, together with its associates and affiliates, can purchase more than 4% of the IPO shares.

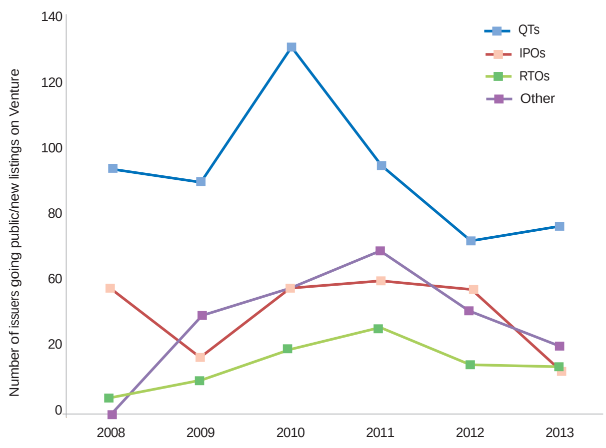
43 These shares are released from escrow on a staggered basis over 3 years (or 18 months for certain larger resulting issuers).

44 The CPC Program was established by the Alberta Stock Exchange, a predecessor exchange to the Venture.

45 As at 30 June 2014, there were 2,042 corporate issuers (including 76 CPCs) listed on Venture.

46 As at 30 June 2014, there were 990 corporate issuers listed on Toronto Stock Exchange. This number excludes 302 exchange traded funds and 209 structured products.

Chart 4
Number of new listings on Venture



2013 broken down by whether the new listing was completed by Qualifying Transaction, IPO[47], reverse take-over (reverse merger) or other (typically, by cross-listing).

There are many reasons for the success of the CPC Program. Smaller issuers that are looking to be publicly listed often having difficulty attracting the interest of traditional investment banks. The CPC Program is innovative because the CPC, not the new business which is later acquired through the Qualifying Transaction, is the entity that goes public. Bankers are able to sell securities of the CPC on the basis of the reputation of the Founders. Further, the CPC Program provides a mechanism through which entrepreneurs have access to the Founders, individuals with financial market experience, who can act as mentors. The CPC Program also provides entrepreneurs with an efficient process for taking their business public. Compared to a reverse take-over which is another efficient way to take a small business public, there are fewer due diligence costs and no hidden costs because the public entity, the CPC, was not previously an operating company with its own business. Entrepreneurs can also take comfort in the fact that the CPC IPO has been reviewed by the applicable SRAs and the Founders have been vetted by the Venture and the SRAs.

Potential risks

In addition to the risks inherent in any equity investment, an investment in the CPC introduces additional risks associated with an investment in a shell company. Recently completed CPC IPOs include the following risks:

- investors are relying on the past business success of its directors and officers to identify a Qualifying Transaction of merit. The success of the CPC is dependent upon the efforts and abilities of its management team;
- the CPC has only limited funds with which to identify and evaluate potential Qualifying Transactions;
- if the Qualifying Transaction is structured so that shareholder approval is not required under corporate law, the IPO investor will not have the right to dissent and be paid fair value in accordance with applicable corporate law;
- upon announcement of a proposed Qualifying Transaction, trading in the CPC shares will be halted for an indefinite period of time, typically until a sponsor has been retained[48] and certain preliminary reviews have been conducted; and
- Venture will generally transfer the CPC to NEX if the CPC has not completed its Qualifying Transaction within 24 months from the date of listing of the CPC.

47 To avoid double counting, IPOs by CPCs were not included in this category.

48 Unless an exemption is available or the requirement expressly waived by Venture, the CPC will be required to obtain a sponsorship (due diligence) report in connection with the Qualifying Transaction that is prepared by a member or a participating organization of the TSX Venture Exchange or Toronto Stock Exchange Inc.

B DEBT CAPITAL MARKET

4. MICRO-CREDIT ABS: ALIBABA

Basic concept

Alibaba's Small and Micro Financial Service Group (Alibaba) provides unsecured micro-lending to SME vendors on its internet and mobile commerce platforms. At the center of its lending operations is a proprietary database of information collected from these platforms and its payment processing arm. Data is analyzed and standardized for its credit approval and loan monitoring processes. The internet platforms and online payment processing arm are used for efficient loan disbursement, repayment and collection processes. Outstanding loans are packaged into ABS, with senior tranches sold to investors and tradable on the Shenzhen Stock Exchange (SZSE).

Key takeaways

- Offers a solution to the lack of reliable data and standardized credit information for proper credit underwriting typical of SME lending.
- Scalability challenges are addressed by a near-automated credit approval process and automated disbursement and repayment process.
- Low default rate is maintained by the deterrence of high cost of reputational impairment on the Internet-based trading platform.
- "Borrow n' Repay Whenever" provides flexibility, cost savings and cost efficiency for SMEs.
- Alibaba securitization accesses a source of funding from a broad investor base at a competitive rate.

Key metrics

- From 2009 to June 2014, Alibaba provided lending services to over 800,000 customers with a cumulative notional value of over RMB200 billion (USD32.2 billion[49]).
- The average loan outstanding per vendor is less than RMB40,000 (USD6,448) and the average credit limit is RMB130,000 (USD20,956[50]).

Background

Alibaba is a large company with leading market positions for internet and mobile commerce and online payment services in China[51]. Its e-commerce platforms host a large number of vendors, the majority of which are SMEs. As a service to SME vendors on its platforms, in 2007 Alibaba started providing loans and short-term working capital financing to these vendors in cooperation with commercial banks. Alibaba later injected its own capital and additional funding sources from the capital market for its lending program. By June 2014, Alibaba provided lending services to over 800,000 customers with a cumulative notional value

49 The majority of this lending was done within the past 2 years. All USD amounts are based on an exchange rate of RMB1: USD0.1612.
50 Source: Alibaba.
51 Alibaba Group's primary business to business platform (B2B) is Alibaba, business to customer platform (B2C) is Tmall, customer to customer platform (C2C) is Taobao and online payment process is Alipay.

of over RMB200 billion (USD32.2 billion). The total outstanding notional loan value is RMB13 billion (USD2.1 billion) and the overall non-performing (or delinquent) loan ratio is approximately 1%[52]. Alibaba's current lending products are primarily short-term credit loans, receivable loans and startup loans. The average loan outstanding per vendor is less than RMB40,000 (USD6,448) and the average credit limit is RMB130,000 (USD20,956).

At the center of Alibaba's lending operation is its database of proprietary information on vendors' activities, credit history, customer reviews and payment processing records. For credit analysis, Alibaba leverages this massive amount of proprietary client data accumulated on its e-commerce and payment processing platforms. Through cloud computing, this data, along with government and third party data and information, are analyzed to produce a standardized credit risk rating for companies and individuals on its platforms. Credit limits and loan disbursement decisions are then based on these credit ratings.

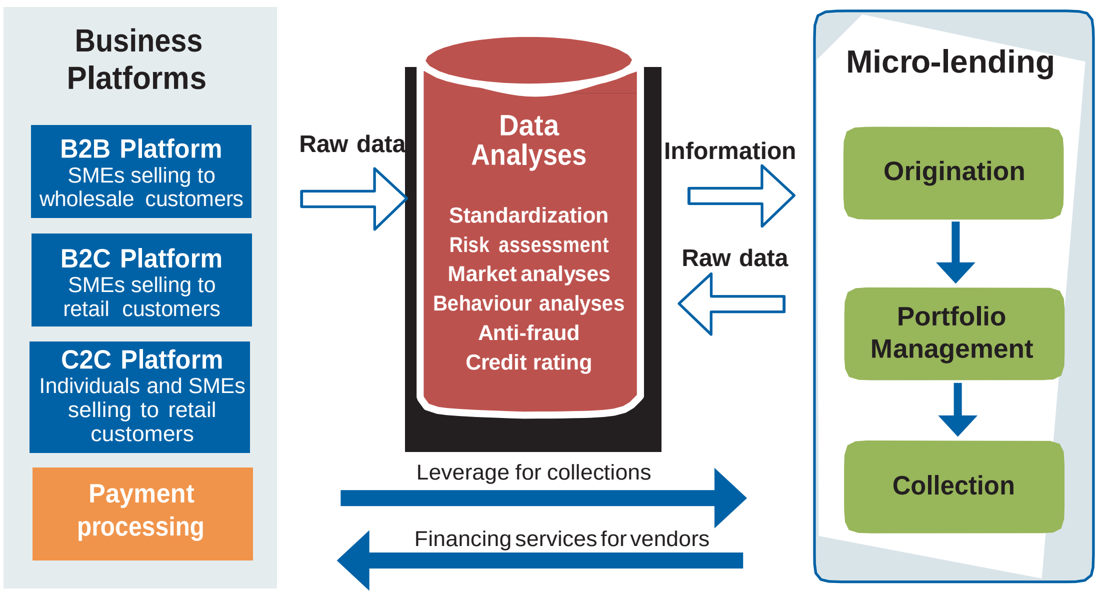
Underwriting is only a part of the risk management system, which covers origination, monitoring and collection. Using its credit rating and SME activities data, Alibaba can continuously monitor the borrower's ability and willingness to repay, thereby generating early risk warnings. Finally, given the borrowers are vendors operating on Alibaba e-commerce platforms, in circumstances of serious delinquencies and defaults, Alibaba has the ability to suspend the borrower's vendor accounts. This serves as an effective deterrence by increasing the borrower's cost of default.

A simplified illustration of the Alibaba micro-lending structure is set out in Diagram 6.

To satisfy the borrowing demands of SME vendors on its platforms, Alibaba accesses the capital market for funding. Working with SZSE and Orient Securities Asset Management[53], Alibaba obtained approval from the China Securities Regulatory Commission (CSRC) to issue its first series of ABS in 2013. CSRC's approval was for a shelf registration of 10 issues of

Diagram 6

Alibaba Micro-lending Structure



[52] Source: Shenzhen Securities Exchange, Alibaba, ABS product filings.
[53] Shanghai Orient Securities Asset Management is the brokerage firm which jointly developed the ABS with Alibaba.

up to RMB500 million (USD80.6 million) each. The deal is the second securitization of micro-lending in China. The structure of all issuances of the first series is 75% senior, 15% subordinated and 10% risk retention by the issuer. The senior tranche is tradable on the SZSE.

To date, Alibaba has raised RMB4 billion (USD0.65 billion) through 8 issuances, each with a maturity of 15 months. The senior and subordinated tranches are performing well and are held by institutional investors such as insurance companies, mutual funds, pension funds, trusts and wealth management funds. Alibaba is also planning a second series of ABS issuance with a larger total notional value and a lower percentage of risk retention.

A simplified illustration of the Alibaba securitization structure is set out in Diagram 7.

Challenges and solutions provided

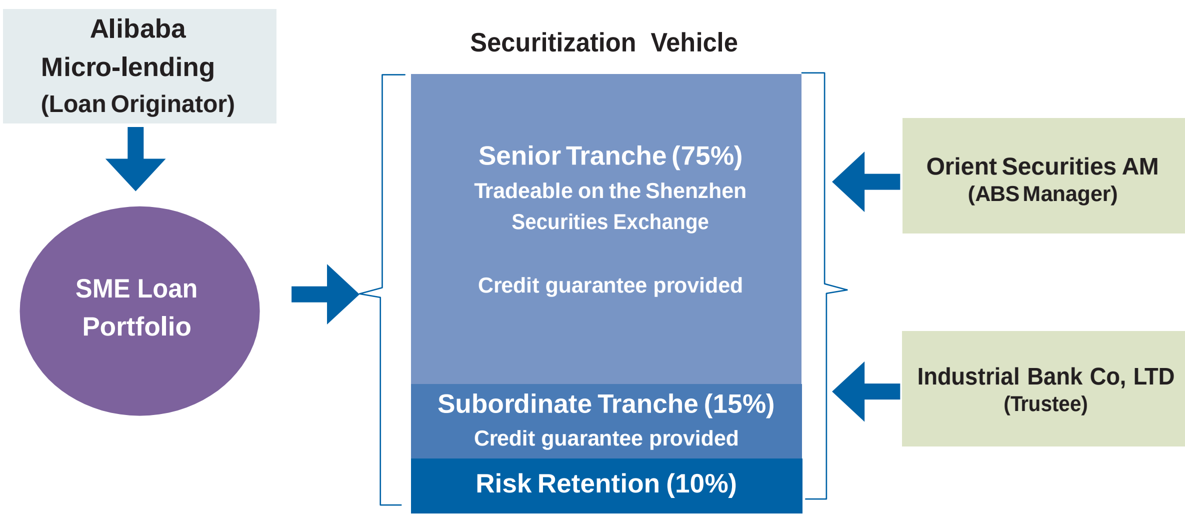
Alibaba's SME lending model provides solutions to several key challenges for SME financing as compared to financing for larger enterprises such as higher cost and quality of underwriting process, difficulties in monitoring post-financing and risk management, and the lack of economies of scale.

Higher cost and quality of the underwriting process is a key challenge to SME financing due to the lack of quality data and track record of SMEs. In the case of Alibaba, in addition to the publicly available data on SMEs and their principals, the lender also has direct access to the borrowers' business activity data. By standardizing and analyzing this data, Alibaba utilizes the information for the credit underwriting process.

Post-lending monitoring may be more difficult for SMEs given the lack of continuous transparency of business performance. Since Alibaba's platforms continuously collect vendor activities data on its platforms, its lending arm can obtain data on a continuous and timely basis.

Risk management for SME financing is difficult given that SMEs are inherently riskier due to the lack of assets available as collateral, higher business volatility and less capacity to weather risk, among others. In Alibaba's case, the lender does not alter

Diagram 7
Securitization Structure



- **Series notional limit: RMB5 billion**
- **10 issuances of RMB200–500 million**
- **Maturity for each issue: 15 months**

Source: CSRC, Shenzhen Stock Exchange.

the fundamental risks related to SMEs. However, the ability to continuously monitor its portfolio of loans and react by suspending the vendor's or owner's platform accounts may provide Alibaba opportunities in terms of risk management and recovery of delinquent loans.

By definition, SMEs lack economies of scale. In Alibaba's case, the lack of economies of scale is primarily resolved through its ability to take advantage of technology to automate most of the processes. For Alibaba's lending arm, the ability to obtain proprietary data on a continuous basis for its decision making, at no marginal cost, is also important for mitigating the issue of scale.

The short average life span of the loans compared to that of ABS products as well as the flexibility for SMEs to repay, could make the loans difficult to securitize. In order to resolve the maturity mismatch and alleviate reinvestment risk, each ABS issue is allowed to reinvest the amount received from repayment of loans into similar standardized loans, up to four times the total issuance size. In addition, the ABS was approved as a shelf registration of ten issues to be completed within five years. This provided additional flexibility on the timing and size of fundraising, allowing the issuer to better align the ABS issuances with its lending program.

Why it is successful

The underlying conditions for Alibaba to be able to provide micro-lending in a scaled and flexible manner is the availability of digitalized activities data, technology to analyze and utilize that data, and broad demand due to the lack of credible alternatives such as bank loans and regulatory flexibility to allow such financing to occur. The issuance of ABS is based on the issuer's track record on SME lending and the competitive return it provides relative to products with similar risk profiles.

Alibaba's micro-lending system creates a win-win for all parties involved:

For SMEs

SMEs are able to obtain unsecured credit at a competitive rate. They can also collateralize receivables to borrow from Alibaba. Since the loans carry a daily interest charge with SMEs having discretion of when to borrow and repay, SMEs may achieve further cost savings for financing. SMEs also have flexibility in terms of the notional value, commencement and duration of borrowing. It is also convenient for SMEs since most of the credit processing is done online and loan approval is mainly based on available data.

For Alibaba (SME lender and ABS issuer)

For Alibaba, providing credit lending services increases the competitiveness of its core business of operating e-commerce platforms by increasing vendors' loyalty and facilitating their growth. By extending micro-loans, Alibaba facilitates online trades, improves customer satisfaction and attracts more small businesses to its network platform. The lending operation itself may generate additional sources of revenue and profit for the company. By leveraging on ABS, the issuer is able to grow its lending platform and improve profitability without committing additional capital.

For the ABS investor

For investors in the senior tranche, the yield is competitive given the perceived level of risk. The risk is considered to be limited after taking into account the quality of the underlying assets, risk retention by the issuer and credit enhancement. Given that the product is traded on the SZSE, investors have liquidity and transparency of information. The product also provides investors exposure to the SME sector which they would not otherwise have.

Potential risks

Given the large amount of digitalized data and automated nature of its lending operations, cybercrime and information technology system stability are potential risks. There is also the risk of fraud to the SME lending operations. Alibaba has anti-fraud mechanisms to identify phantom transactions and conduct risk analysis based on the digitalized trail of clients' activities. However, business stability and natural default of SMEs are risks that cannot be fully eliminated.

5. SME LOAN ABS: QUADRIVIO

Basic concept

Quadrivio is an initiative launched by EIB in association with the European Investment Fund (EIF) to support enhanced debt finance to SMEs by facilitating SME risk[54] transfer from the originating bank to the capital market. This is important since the SME securitization market is at a nascent stage in Europe where most jurisdictions do not yet have developed securitization markets. The securitization structure existing in these SME markets is based on assets with relatively long maturities and is characterized by fairly heterogeneous asset types.

Key takeaways

- The European Central Bank (ECB) initiative is primarily to activate the market for SME securities by encouraging institutional investor participation and promoting bank business loans to SMEs.
- Increased institutional participation such as EIB in the ABS market helps attract new investors and increases the overall funding facility available to SMEs.
- The structure is a successful example of collaboration between two creditworthy institutions (the first joint initiative within the EIB Group[55] in the ABS market) primarily to help alleviate the perceived risk associated with subscribing to a security backed by SME loans.

Key metrics

- The underlying assets are primarily 9,177 SME mortgage facilities, the average outstanding loan amount in this portfolio is EUR108,927 (USD150,396[56]) and the largest is EUR1.85 million (USD2.55 million).
- The total issuance of the three senior classes amounted to EUR390 million (USD541 million).

Background

The EIB Group offers funding either directly to borrowers or engages with banks and financial institutions as distribution partners. It provides support for SMEs in different forms: equity, loans and guarantees. The EIB Group has recently been exploring alternatives using and combining existing financing tools such as EIB loans and EIF guarantees to increase the participation of institutional investors in the European ABS[57] market. As an initiative to be implemented during the period between 2013 and 2015, the EIB Group is increasing its support for financing of SMEs.

EIF's key guarantee products supporting SMEs' access to finance are guarantees for securitized SME financing instruments, as illustrated in Diagram 8, and portfolios of SME loans. Loans and securities with EIB-EIF guarantees benefit from a preferential risk weight and credit rating treatment. This increases their attractiveness for investors in comparison to loans and securities without such guarantees.

One channel the ECB is exploring to improve SMEs' access to finance is the establishment of a securitization platform for ABS backed by SME loans. EIF guarantees facilitate the development of the ABS market, hence allowing banks to diversify their funding sources and achieve economic and regulatory capital relief via credit risk transfer. By establishing a platform for ABS backed by SME loans and supported by an EIB or EIF guarantee, the functioning of the SME financing market could be improved.

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54 SME risk refers to the inherent risk with regards to lending to companies with weak credit profiles.

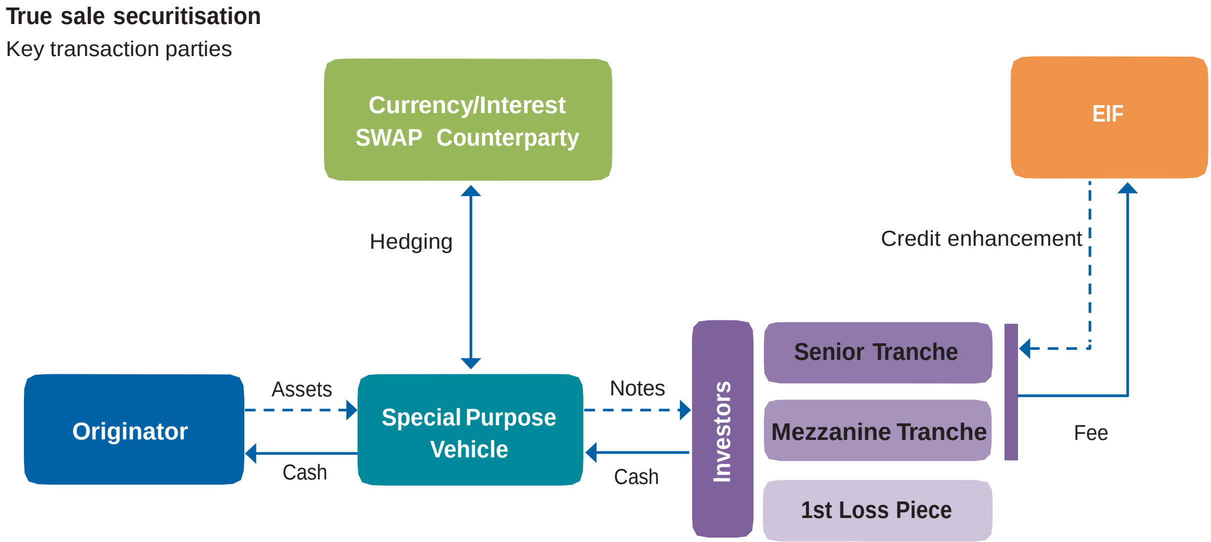
55 The EIB Group was formed in 2000, comprising EIB and EIF, the EU's venture capital arm that provides finances and guarantees for SMEs. EIB is the EIF's major shareholder, with 62% of the shares.

56 All US dollar amounts are based on an exchange rate of EUR1: USD1.3807 on 28 February 2014.

57 In this context, ABS refers to SME loans.

Diagram 8

Potential Credit Enhancement Operation Provided by EIF



Example: Quadrivio 2014

Quadrivio securitization is a structured deal achieved through collaborative participation by EIB and EIF, as illustrated in Diagram 9. It is the second SME securitization effort[58] undertaken by Credito Valtellinese banking group (Creval Group[59]) under the Quadrivio name. Its primary objective is to increase the resources available for SMEs through the involvement of institutional investors.

The underlying assets primarily consist of 9,177 mortgage facilities[60] each of which is governed by Italian law and advanced to 9,106 borrowers. (Credito Valtellinese - 5,311; Carifano - 2,005; Credito Siciliano - 1,861). The average outstanding amount of loans in this portfolio is EUR108,927 (USD150,396) and the largest is EUR1.85 million (USD2.55 million).

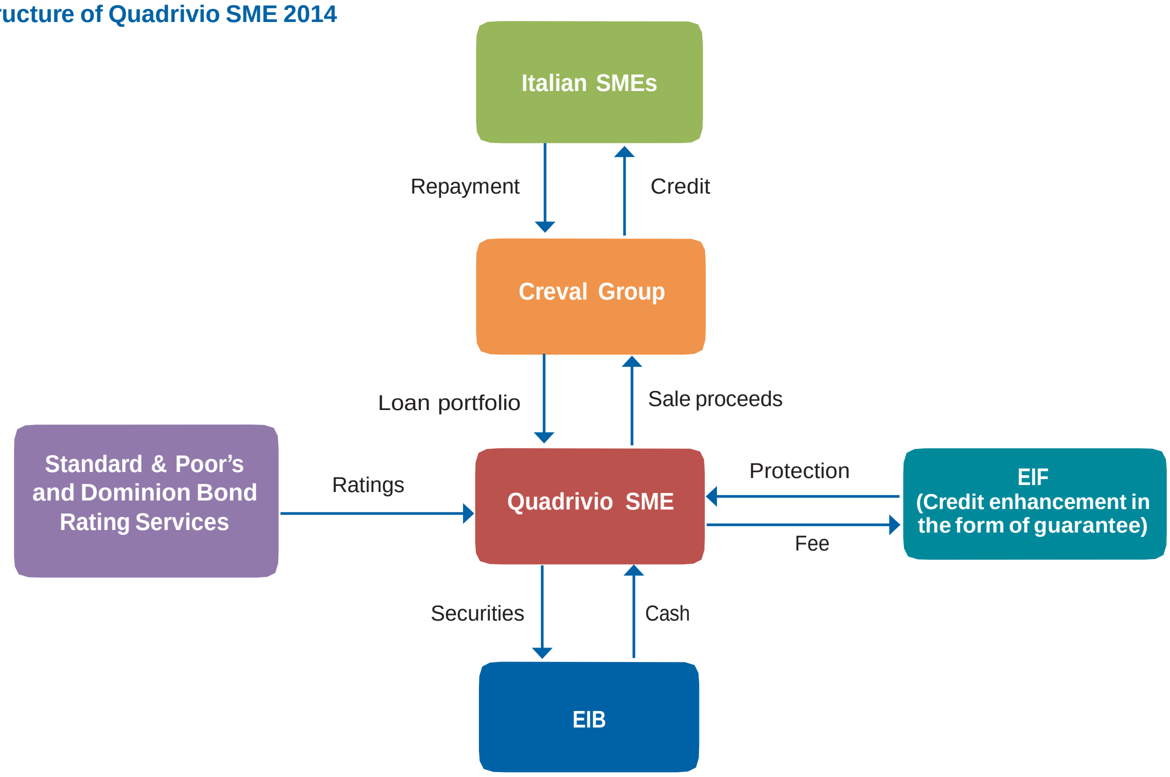
The structure is created through securitization using the SPV Quadrivio SME 2014, which issued four different classes of ABS (A1, A2A, A2B and B). The total issuance of the three senior classes (A1, A2A and A2B) amounted to EUR390 million (USD541 million), with a rating of AA and AAA from S&P and Dominion Bond Rating Services respectively. EIB subscribed to one of the classes (Class A2A) for the amount of EUR200 million (USD276 million) whereas EIF guaranteed EUR80 million (USD110 million) in Class A1 securities. The securities benefit, on account of EIF's backing, from better prudential treatment and favorable market conditions.

EIB's intervention in the form of subscribing to one of the tranches also helped Creval attract investments from other institutional investors who subscribed EUR110 million (USD152 million) in the ABS notes

58 First SME securitization effort was undertaken by Creval Group in 2012 using the same vehicle Quadrivio.
59 Creval Group comprises three Italian lenders Credito Valtellinese, Carifano and Credito Siciliano.
60 A mortgage loan, also referred to as a mortgage, is used by purchasers of real property to raise money to buy the property to be purchased or by existing property owners to raise funds for any purpose. The loan is "secured" on the borrower's property. This means that a legal mechanism is put in place which allows the lender to take possession and sell the secured property ("foreclosure" or "repossession") to pay off the loan in the event that the borrower defaults on the loan or otherwise fails to abide by its terms. The mortgage facilities are primarily extended to SME.

Diagram 9

Structure of Quadrivio SME 2014



issued, thus creating a new source of funding for SMEs.

Challenges and solution provided

There is growing attention in the banking sector on the scarcity of equity capital. On the one hand, banks are increasing efforts to improve their risk management instruments and adapt their business models to the changing regulatory environment. On the other hand, certain banks are moving away from their lending activity, in particular SME lending, in an effort to shift towards fee-generating businesses (i.e. towards less capital-consuming operations).

There is also pressure for larger banks to diversify their investments outside their home jurisdiction, which may further limit their internal lending capacity (such as for SME lending). Within the Basel III framework and the evolving internal risk management systems of banks, the credit quality/rating of a borrower has become the main determinant of the amount of regulatory capital required to be set aside against credit exposure (thus bringing the concept of regulatory capital closer to that of economic capital). For SMEs, this is expected to lead to a relatively higher cost of bank finance, given that their credit quality is unlikely to be investment grade[61]. For many small businesses, this could also possibly lead to some credit rationing[62], if not a credit crunch.

61 Investment grade is a rating which indicates that a municipal or corporate bond has a relatively low risk of default.

62 Credit rationing refers to the situation wherein the lenders limit the supply of additional credit to borrowers who demand funds, even if the latter is willing to pay higher interest rates.

The successful SME loan securitization program launched in 1985 by the Small Business Administration in the US can be regarded as a forerunner to European SME securitization. The possibility of using securitization to enhance the lending capacity of local lending institutions led to added value in banks' SME credit business, by providing an additional source of financing at relatively cheaper cost as compared to traditional options. The main role of banks in these transactions became that of loan origination and servicing, while funding was mainly obtained through ABS issuance (except for the first loss piece (FLP) which was retained by the originators). Some of the advantages of using this structure are as follows:

- **Wider investor base for SME credit risk:** The Quadrivio structure and similar transactions have widened the investor base for SME credit risk beyond traditional domestic lenders to international investors. Many of these sophisticated investors were previously unable to access the SME market segment which allows them to diversify away from large corporate exposures (recently suffering from many downgrades) to quasi-retail risk[63, 64].

- **Changing regulatory and economic environment:** The recent changes in the regulatory and economic environment will likely make securitization more attractive for savings banks that have traditionally been investing in German government bonds which have the lowest credit risk. These changes include the phasing out of statutory guarantees provided by Germany, growing finance constraints on the public budget and higher return on equity requirements for the savings banks.

- **Access to capital markets by smaller banks:** Due to their size and rating, regional banks rarely tap the capital markets and are typically deposit-driven institutions that rely on inter-bank borrowing for medium-term funding. As such, securitization is an essential means to diversify their funding base, as well as to gain access to medium-term funding at costs consistent with top rated issues (AAA) that could not be achieved through direct borrowing.

- **Repeat deals and replenishment features:** With deals such as Quadrivio 2014, securitization is a long-term strategy for originators as transaction costs and time to market decreases substantially after the first operations and investors get more familiar with the underlying assets. Portfolios such as Quadrivio 2014 have a replenishment feature whereby banks can replenish the portfolio with new claims up to a present maximum amount[65]. In this way the structure becomes more economical. In addition, banks can originate new loans with the objective of being able to immediately securitize them in the available structure, thus generating new loans to SMEs at relatively low cost.

Why it is successful

The reasons why banks and financial institutions have chosen to use the Quadrivio structure to securitize a portion of their loan portfolio are as follows:

- **Funding at attractive terms:** By using this asset-backed funding technique, the originating bank achieves diversification of its funding base at flexible terms (which is the issuance of ABS as opposed to deposit taking or inter-bank borrowing). The terms of funding can be structured by the originator from a pre-defined underlying portfolio profile and are less sensitive to single event risk, such as originator specific problems, than traditional inter-bank funding.

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63 Quasi retail risk represents the risk associated with investing in SMEs.
64 It is worth noting that senior ABS tranches from even small SME loan securitization deals are widely placed with a range of international investors not only from the EU, but also from e.g. US and Japan.
65 Present maximum claim refers to the limit to which new claims can be added to the existing structure.

- **Regulatory capital relief:** Regulatory capital relief is an important factor in securitization transactions[66]. In this instance, regulatory capital relief is achieved in a securitization transaction when the selling bank retains the FLP which is the junior tranche corresponding to the level of losses expected to be incurred in the portfolio that is lower than the level of regulatory capital to be allocated to the loan portfolio before the securitization transaction (e.g. FLP = 4.5%, regulatory capital = 8% of the securitized loan portfolio).

- **Economic capital relief:** Economic capital relief, which the Quadrivio structure helps to achieve, occurs when the originating bank is able to reduce the normal level of its own funds set aside against its credit exposure to cover unexpected losses. The economic capital is therefore a function of the underlying loan portfolio risk (credit risk, operational risk), as well as the originator's policy to provide capital cover for unforeseen events.

The effect of this funding operation, together with new agreements with EIB adds resources to the lender's ability to provide continuous and robust support for SME enterprises. Local lenders' proximity to the local area also allows them to rapidly channel resources to their clients, who consist principally of SMEs. Thus, it maximizes the effectiveness of structures like Quadrivio for financing investments, which are vital for the competitiveness of a country's production system.

Potential risks

Due to the nature of the asset pool, some of the risks prevalent within the structure are as follows:

- **Inaccurate valuation primarily on account of heterogeneous nature of the underlying assets:** Packaging and guaranteeing SME loans is complex. Part of the problem lies in the fact that there is no single definition for SMEs across jurisdictions. In addition, there is a large variety of SME business profiles which increases the challenge of assessing SME loans and may go beyond the ECB's or an institutional investor's remit. In the absence of a clearly defined valuation framework, an investor might arrive at an incorrect valuation on the security primarily driven by false assumptions.

- **High capital requirement may reduce investor's appetite for these structures:** High risk weights on ABS and SME loans remain a challenge. Without guarantees, the risk weight for SME loans is punitive. As only one of the tranches is guaranteed by an external credit worthy institution such as EIF, investors subscribing to the subordinated tranche will have to provide for a higher capital allocation to compensate for the risk associated with these transactions. This may work against a regulated investor's appetite for investing in these securities.

- **Uncertain regulatory environment:** Trends in regulation relating to SME-backed ABS within the Euro system is about to change. This may have an implication on Euro system central banks making direct purchases of ABS backed by SME loans.

[66] It is one of the primary driving factors for securitization as loans given to SMEs are considered to be risky assets. As a result, commercial banks have to provide for increased capital on their books to compensate for the implication of having invested in a risky asset.

C SECURITIZATION

6. SME LEASING: GERMAN MITTELSTAND

Basic concept

The transaction entails the securitization of receivables arising from equipment lease contracts with German commercial businesses or self-employed professionals, originated by a leasing company. The range of leased objects is wide and can be divided into several asset categories such as machinery, commercial vehicles, cars, and information technology, office and other equipment.

Key takeaways

- The successful securitization of lease receivables by IKB Leasing GmbH (IKBL) has allowed the lease provider to extend additional funding to SMEs while diversifying its funding sources and reducing its cost of funding.
- Increased institutional participation such as by EIB in the ABS market has helped attract new investors, which in turn increases the overall funding facility available to SMEs.
- In view of the limited number of ABS issuances, the IKBL issuance has allowed investors to diversify their exposure away from conventional asset classes[67].

Key metrics

- The lease portfolio comprises contracts that are partially amortizing (65.3%), hire-purchase (23.8%), terminable at the option of the lessee (7.6%) and fully amortizing (3.3%).
- The senior Class A tranche of the German Mittelstand transaction was oversubscribed by 5.5 times while the Class B and C tranches were twice oversubscribed[68].
- EIB invested in the senior Class A tranche which provided IKBL with financing amounting to EUR97 million (USD129 million[69]).

Background

IKBL is a leading specialist in the German machinery leasing market with long-standing vendor partnerships with coveted partners. The lease portfolio exposure is primarily towards SMEs. Machinery and equipment is by far the dominant lease objects underlying the majority of its lease contracts. The German Mittelstand Equipment Finance SA, Compartment 2 (GMEF II) transaction is the securitization of receivables from lease contracts with German commercial businesses or self-employed professionals, originated by IKBL, which is entirely owned by IKB Deutsche Industriebank AG (IKB)[70]. The portfolio is granular[71] in terms of obligors which are SMEs and local

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[67] Mortgage-backed securities (MBS) and other ABS with underlying assets such as auto loans.

[68] The total issuance volume of the ABS was EUR227.3 million. The outstanding ABS in Germany was EUR65.4 billion as of Q1 2014. The newly issued volume was EUR22.6 billion in 2013 and EUR3.5 billion in Q1 2014.

[69] As of 22 August 2014.

[70] IKB Deutsche Industriebank AG is the largest refinancing source for IKBL.

[71] The securitized portfolio is highly granular with the largest and 20 largest borrowers representing 0.49% and 7.35% respectively.

businesses based throughout Germany. IKBL offers the following types of contracts to their customers:

i. Full amortization (3% of the initial pool): Fully amortizing lease contracts.
ii. Partial amortization (68% of the initial pool): Leasing contracts with a residual value at maturity. Residual values are not securitized in the German Mittelstand transaction. Any associated risks remain with the originator (IKBL).
iii. Terminable contracts (7% of the initial pool): The contract life of terminable lease contracts is generally unlimited. Contracts are terminated at the lessee's option after a minimum period.
iv. Hire purchase (22% of the initial pool): These contracts contain rental and purchase elements. As opposed to a leasing contract, the "hire-purchaser"[72] is the economic owner of the object from the commencement of the contract onwards.

The lease objects predominantly comprise production machineries and to a limited extent trucks, trailers, busses, cars and small trucks. IKBL has a comprehensive internal credit evaluation process whereby the credit decision is based on an internal rating scale for business partners and objects.

Transaction details

The portfolio consists of equipment leases granted by IKBL to SMEs, corporate and self-employed individuals in Germany. The lease portfolio has demonstrated strong and consistent historical performance. Lessees pay regular installments on amortizing lease receivables. The portfolio benefits from diversification across the regions and lessees' sectors of activity. The German Mittelstand transaction has a liquidity reserve fund of 1.55% of the rated notes to cover potential liquidity shortfalls.

Upon entering into a lease contract and throughout the life of the lease, IKBL will sell eligible receivables to the issuer. The issuer (German Mittelstand Equipment Finance SA) is a bankruptcy-remote, limited liability special-purpose company incorporated for the sole purpose of issuing securitized notes and using the proceeds to purchase the lease receivables. The assets are purchased by the SPV for a purchase price, which is equal to the outstanding lease installments, discounted by the higher of 3.5% or the contracted internal rate of return (IRR). The securitization transaction has a revolving period of one year, during which IKBL is permitted to sell additional assets to the SPV equivalent to the amount of incoming amortization, unless an early amortization event occurs. In the case of securitizations backed by partially amortizing lease contracts, the residual value is not securitized, thus noteholders are not exposed to potential direct market value risk of the lease collateral. The junior tranche will be retained by IKBL in order to comply with the minimum 5% retention requirement of CRR[73]. The notional amount of the transaction is segregated into Class A, Class B and Class C notes. The Class A notes were assigned AAA (sf) by Fitch and Aaa (sf) by Moody's[74]. Diagram 10 illustrates the structure of the German Mittelstand transaction.

Challenges and solution provided

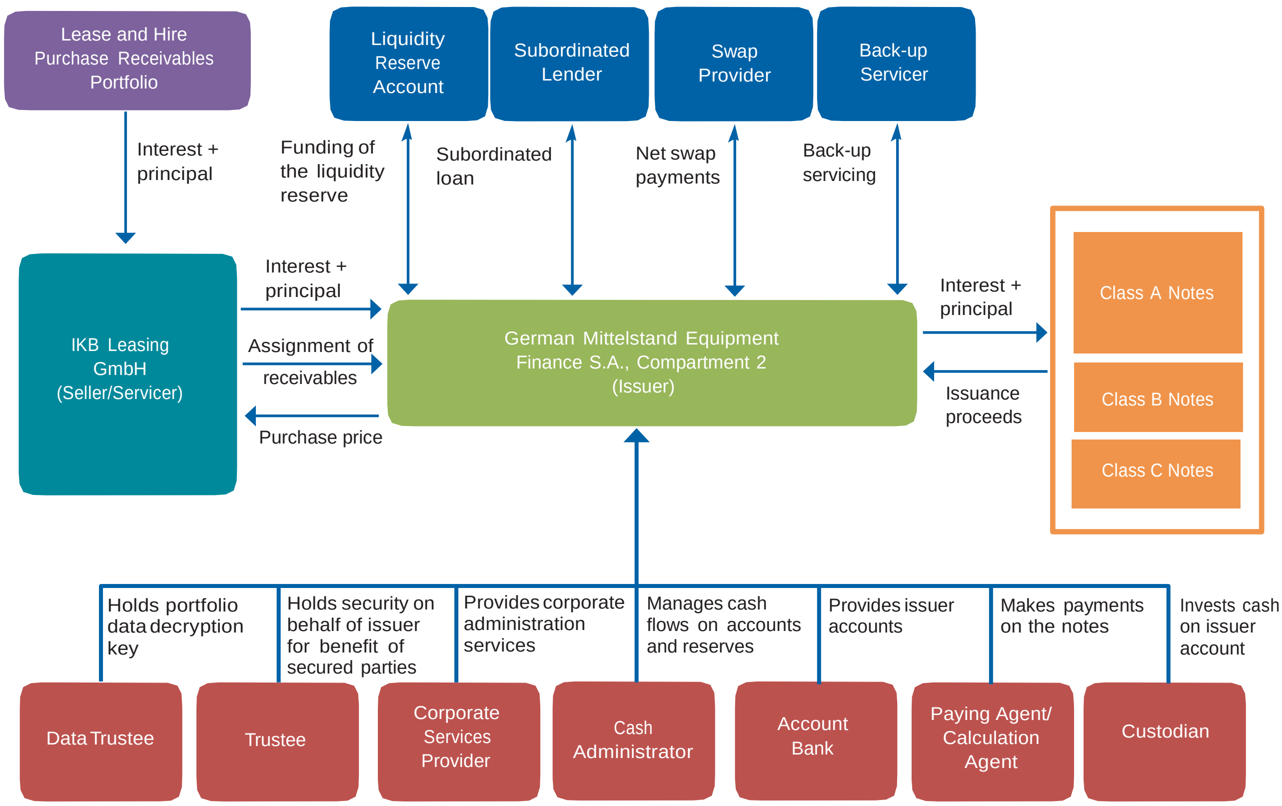
Germany's SMEs, commonly referred to as Mittelstand, have shaped the country's economic development since 1945. However, corporate bond markets remain inaccessible for many of the smallest Mittelstand firms due to high costs and lack of investor interest. The same holds true for the securitization of accounts receivable unless Mittelstand firms engage in some form of pooling involving a specialized intermediary.

In just under 50 years, leasing in Germany has established itself as one of the most important investment tools in all branches of industry and commerce, and in particular, in the SME sector. Current equipment leasing agreements in Europe cover assets worth EUR236 billion[75], of which

72 In this case IKBL.
73 European Commission's Capital requirements regulation and directive – CRR/CRD IV.
74 The ratings stated above were assigned in July 2014 by Fitch and Moody's respectively.
75 www.leasinglife.com/news/newsuk-becomes-europes-largest-leasing-market-after-weak-german-growth---leaseurope

Diagram 10

German Mittelstand Transaction Structure



EUR43 billion is in Germany. The General Electric capital survey[76] found that in Germany, SMEs preferred to make outright purchases of equipment (70% of respondents) followed by leasing, which was the second most preferred option (22% of respondents). This indicates that leasing provides a good alternative for SMEs to use their equity capital for outright purchases.

Typically, the advantage of not needing to include the lease asset or lease obligation in a lessee's balance sheet leads to more favorable capital structure ratios. Conversely, a lessor is required to take risk exposures into account and its refinancing conditions directly depend on the credit rating of its lease portfolio. Securitization is thus an option whereby leasing companies such as IKBL can get their portfolios refinanced at comparatively lower funding costs[77] as well as gain access to a new funding source. Additionally, IKBL and many of its peers already have established business models and IT infrastructure[78] allowing them to undertake securitization transactions in recent years. Issuances have also benefited from a growing interest from among institutional investors to purchase securitized bonds backed by equipment leases. This is due to the attractive yields offered by lease-backed bonds and the non-consumable nature of the collateral

76 GE Capital European SME Capex Barometer, July 2011.
77 In case of default of the lessee, the lessor (compared to banks) might have better market access for selling the lease assets.
78 IT infrastructure is one of the issue-related cost that the first time issuer incurs. This cost is significantly lower for subsequent issues.

as equipment leases are primarily originated to businesses with provisions limiting prepayment of the leases. Securitization may also enable the originator to 'borrow off-balance sheet' if the transaction is structured as a sale where the assets are removed from the seller's (lessor) balance sheet and the securities evidencing interests in the asset pool (securitized bonds) do not appear as liabilities.

Why it is successful

The German Mittelstand transaction received an overwhelming response from investors, as evidenced by the fact that the senior Class A tranche was oversubscribed by 5.5 times, followed by the Class B and C tranches which were twice oversubscribed[79].

EIB invested in the senior Class A notes, which like all classes of this transaction, are secured by German SME leasing receivables originated by IKBL. This subscription alone provided IKBL with financing amounting to EUR97 million which could be used to support projects involving lease financing carried out by SMEs or medium-sized companies with up to 3,000 employees in Germany and other European Union countries. EIB's participation in the issuance also provided further impetus to the perceived attractiveness of the notes, which led to the transaction being well received. This compares favorably to other European ABS often being retained on the balance sheet.

The transaction's success was primarily based on the nature of the underlying assets, which offered investors the ability to diversify away from their existing exposures. Given the limited number of ABS issuances, the IKBL securitized notes provided a viable alternative to yield-seeking investors as these notes are backed by a portfolio of German lease and hire purchase receivables. The portfolio has demonstrated a strong and consistent historical performance and 93% of the lessees pay their leasing installments by direct debit into a servicer's account which is in turn pledged to the SPV. Hence, this direct debit feature into an account mitigates servicer risk and reduces default risk. Further, IKBL has demonstrated a high recovery rate, which is exhibited by the fact that more than 60% of its delinquent classified contracts will be recovered[80], since leasing objects are usually an essential part of the complete business operations of SMEs and lessees are inclined to continue with repayments to avoid the loss of these objects[81]. Investors' confidence which contributed to the transaction being successful was primarily fostered by collateralization whereby in 80% of default situations[82], the object will be sold to minimize the accrued loss. Additionally, IKBL as originator and servicer, had successfully leveraged on its experience from past securitization issuances. Even though the portfolio is originated within Germany, the obligors originate from diverse regions within Germany.

Moreover, the securitization of GMEF II is certified by True Sale International, a German securitization standard, which underpins the sound legal structure and provides investors an appropriate and transparent reporting on an ongoing basis.

Financing by way of securitization has provided IKBL with an attractive source of funding. The senior Class A notes issuance was priced at EURIBOR+50 basis points. The traditional sources of financing for IKBL comprise bank funding and forfaiting[83]. In view of these advantages, IKBL intends to position itself as a repeat issuer over the coming years. This will allow IKBL to obtain a more diversified and stable source of funding.

Potential risks

- **Credit risk:** The risk refers to the deterioration of the performance of the underlying assets in the event of default by the obligors. This risk is mitigated by loan subordination and utilizing reserve funds namely liquidity, comingling and indemnity reserves.

79 Source: Deutsche Bank AG (Joint Lead manager and joint book runners).
80 Source: Investor's presentation July 2014.
81 Investor Presentation July 2014.
82 In the event of default by the obligor.
83 The bank funding is primarily obtained from IKB Deutsche Industriebank AG (IKB).

- **Interest rate risk:** The interest rate applicable to the outstanding lease contracts is fixed whereas the interest payable on the floating rate securitized notes is linked to EURIBOR plus a margin. However, the issuer has entered into an interest rate swap to hedge the exposure.

- **Servicer risk:** The risk that servicing could be omitted in the case of a default by IKBL (an unrated entity) is mitigated by the fact that a backup servicer has been mandated at closing.

- **Early redemption and the effect on yield:** The yield to maturity of a note is dependent on the timing of payment of principal and interest. Based on the past trajectory between 31 March 2004 and 30 September 2013, prepayment has been below 2% as the penalty clause incorporated in the majority of lease contracts ensures that loss is minimized in the event of a prepayment. As a result, early redemption risk is mitigated to an extent.

- **Low liquidity in the secondary market:** The secondary markets for certain ABS segments are currently experiencing severe disruptions resulting from reduced investor demand for ABS and increased yield required by them. As a result, the secondary market for ABS is considerably illiquid. The limited liquidity in the secondary market for ABS may have an adverse effect on their market value, particularly in situations of market stress.

- **Revisions to Basel III framework (implemented through CRD IV and CRR)[84], requirements for institutional investors:** The amendments to the existing CRR and CRD IV framework are expected to affect the risk-based capital treatment of notes issued to investors who are subject to bank capital adequacy requirements. The Basel Committee on Banking Supervision (BCBS) has responded to the shortcomings in the Basel II framework with various proposals for enhancements. Depending on the final calibration of the new securitisation framework many positions held in structured products prevalent before the global financial crisis may become substantially more expensive to hold on the balance sheet for investors who are subject to bank capital adequacy requirements. This could probably have an impact on the number of new issuances and participation of regulated institutional investors in the securitization market. Any other future amendments to CRR and CRD IV in the near and medium-term as well as Solvency II beginning in 2016 may also impact regulated investors' participation in securitized transactions.

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[84] The amendments proposed by the Basel Committee published in July 2009 'Revision to the Basel II market risk framework' and 'Enhancement to the Basel II framework' which have been implemented by the European Parliament and Council through a new set of legislation which is termed CRD IV and the basic rules and requirements for the banking business and its supervision with a new regulation termed as CRR.

7. TRADE RECEIVABLES: TRAFIGURA

Basic concept

The transaction is a revolving cash securitization of trade receivables related to obligors located in various countries for the purchase of commodities. It is an effort by Trafigura Group (Trafigura) to directly access investors such as sovereign wealth funds and insurers to fund its trading activities. The program is the largest of its kind in Europe and is expected to benefit SMEs by facilitating the provision of trade finance for the purchase of key commodities in the production process.

Key takeaways

- Given the liquidity constraints faced by financial institutions worldwide, Trafigura is able to reduce its reliance on bank backstop liquidity for ongoing funding by securitizing a major portion of its trade receivables.
- The Trafigura Securitization Program (TSP) is unique in terms of its diversified funding mix which allows Trafigura to secure funding from the term market[85] as well as bank-sponsored conduits[86].
- The dual structure of the program allows Trafigura to scale up its funding through the issuance of variable funding notes which have a shorter maturity than term notes and can be issued throughout the year.

Key metrics

- TSP was launched in November 2004 and is currently funding up to USD3 billion of trade receivables issued with Trafigura's trade clients.

Background

About Trafigura

Trafigura is a privately-owned, leading global commodity trading group which purchases commodities as principal and sells them to industrial consumers. Trafigura's businesses also include transport, storage and blending of commodities as well as the supply of financial, logistical, hedging, purchasing and marketing services to its customers. Trafigura's core traded commodities include the following:

- In the energy sector, crude oil and refined products including fuel oil, middle distillates (gas oil, jet fuel, kerosene), gasoline, biodiesel, naphtha, natural gas and liquid petroleum gas; and
- In the bulk-commodities sector, concentrates and refined metals for copper, zinc, lead and aluminum, and more recently iron ore and coal.

About the transaction

TSP was launched in November 2004 and is currently funding up to USD3 billion of trade receivables issued with Trafigura's trade clients. The trade receivables consist of invoiced crude oil, oil products, non-ferrous metals, non-ferrous metal concentrates, iron ore and coal (specified commodities) originated to obligors located in various countries together with the benefit of payment undertakings which are mostly letters of credit (LOC) in addition to insurance, guarantees and other eligible credit support provided by financial institutions.

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[85] Term market refers to the section of the market primarily governed by Rule 144A of the US Securities Act of 1933 (SA 33), which provides a safe harbor from the registration requirements of SA 33, for private resale of restricted securities up to a minimum amount to qualified institutional investors. The objective of Rule 144A, which proved to be extremely successful, was to increase the liquidity of the securities affected.

[86] Bank-sponsored conduits refers to funding vehicles set up by banks in order to allow companies to access the commercial paper market in the context of asset-based financing.

Trafigura securitizes its trade receivables arising from the sale of specified commodities through an SPV incorporated in Ireland (the Issuer). The securitized receivables are those that have been originated in the ordinary course of Trafigura's business and for which related goods and services have been shipped and performed, and should not be set-off[87], among other criteria.

The receivables are acquired by the Issuer at their face amount. The total funding costs and expenses are covered by an interest reserve adjusted on a weekly basis and funded by Trafigura in addition to a cost reserve in cash.

Credit enhancement is provided through two subordinated loans (credit enhancement floors): Senior Subordinated Loan and Junior Subordinated Loan. The Junior Subordinated Loan is provided by Trafigura and cannot be lower than 6% of the pool balance.

Until the end of the revolving period, the Issuer has the ability to issue two categories of notes: Medium Term Notes (MTN) and Variable Funding Notes (VFN). Each new series of MTN has a number of criteria to follow prior to issuance, while the VFN are issued at various dates throughout the year with each VFN having a one year maturity and renewed on an annual basis. The first series of MTN was issued in 2007 with a scheduled amortization date set on June 2012 while the second series of MTN is the Series 2012-1 with a scheduled maturity date in April 2015.

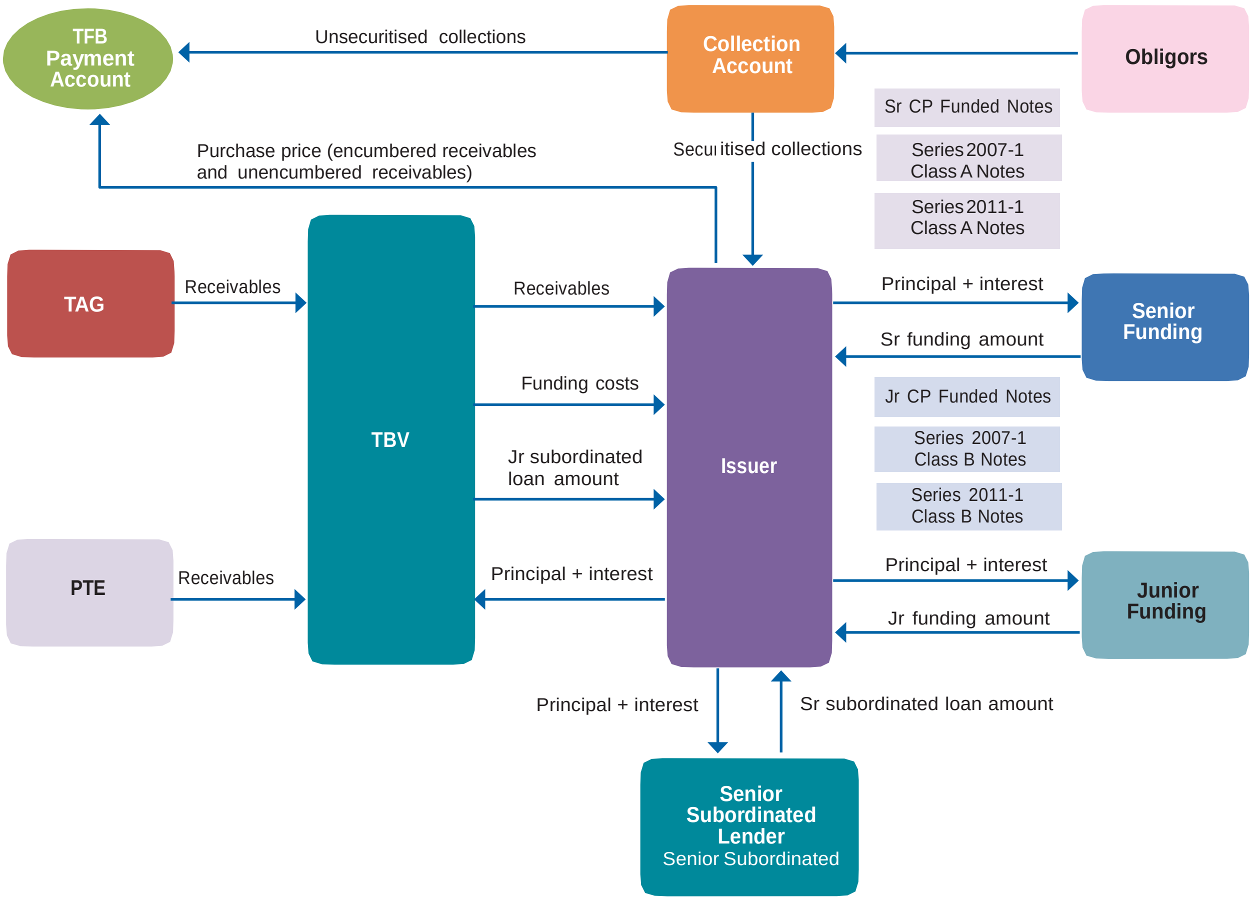
TSP is the largest transaction of its kind in Europe. Most physical transactions entered between Trafigura and its clients are financed on a transactional basis with LOC or loans outstanding under existing lines with trade finance banks. As a result, the securitization of Trafigura's receivables accelerates the rotation of existing credit lines as secured bilateral loans are repaid faster with the program proceeds from the sale of the receivables. This frees up financial resources, enabling Trafigura to grow existing activities and develop new businesses.

A simplified illustration of the Trafigura transaction is set out in Diagram 11.

87 Set-off means to subtract the smaller debt from the larger. Any balance remaining due from either of the parties is still owed, but the remainder of the mutual debts has been set-off.

Diagram 11

Structure of the Trafigura Transaction[88]



Challenges and solution provided

The European banking crisis posed a threat to the trade finance sector which spilled over to the overall raw materials market as French banks, the main financers of trading houses, reined in their lending. BNP Paribas, Crédit Agricole and ING provided most of the credit lines underpinning the business of Swiss-based traders such as TBV that dominated the commodities markets. Post-crisis, most banks started curtailing their exposure to the commodity trading business primarily due to a shortage of US dollar liquidity coupled with new regulations. The dollar funding scarcity is estimated to have cut credit availability by 20-30%[89].

The drive by French and other EU banks to reduce the size of their balance sheets, by reducing their lending to the commodities trading sector, is exacerbating the adverse impact of the new Basel III capital rules on commodities trade finance. New regulation, which will be phased in over the next seven years, makes the issuance of LOC, a common instrument in commodities trade finance, far more onerous. Under the Basel II rules, banks needed to hold capital equal to just 20% of the value of LOC. The new rules raise the requirement to

[88] Trafigura Beheer B.V (TBV), Trafigura AG (TAG), Trafigura PTE Ltd. (PTE).

[89] Source: Financial Times (Estimate provided by Jacques Oliver Thomann, head of commodity trade finance at BNP Paribas).

100%, greatly increasing the cost of lending for banks.

Securitization can be an attractive tool for borrowers with high quality assets to diversify their sources of financing away from traditional banking facilities or more standard capital market financing such as bonds. As these securities are backed by low-risk assets, appropriately structured securitizations can often provide savings in terms of funding costs when compared to unsecured committed facilities.

Securitization of trade receivables is rooted in the real economy and can offer funding for participants in global trade. The short-term nature of trade receivables matches well with short-term liabilities which, in conjunction with longer term notes, are used to fund receivables. This is in contrast with maturity mismatches that proved to be highly problematic during the global financial crisis.

Since this program is funded from US dollar capital markets, whether directly from term investors or indirectly via conduits, the program significantly reduces the amount of US dollar liquidity required by Trafigura from its banks in the form of traditional transactional lending. This diversification effect is a useful risk management tool especially in scenarios where bank liquidity is constrained as observed during the global financial crisis of 2008 and the Euro sovereign crisis in 2011. TSP has operated without funding disruptions through various market cycles, providing a reliable and resilient source of capital to the business. This resilience also stems from the strong credit performance of the underlying trade receivables.

Why it is successful

Since its launch in 2004, TSP has been a consistent source of funding for TBV and is currently funding up to USD3 billion of trade receivables from Trafigura's trade clients. One of the underlying factors contributing to the success of TSP is that it is a scalable funding program. The program can grow as Trafigura's volume of trade receivables increases primarily on account of the dual structure which allows the company to source funding from the term as well as the conduit[90] markets. This structure primarily allows the Issuer (the SPV) to issue two categories of notes, namely MTN and VFN. VFNs are typically purchased by bank-sponsored investors who have an existing relationship with Trafigura[91]. MTNs are placed with fixed income investors who do not have a relationship with Trafigura. Therefore, the pricing with respect to these two notes differ and is predominantly dependent on the market rate at the time of issuance. Due to the flexible structure of the VFN which allows multiple issuances, Trafigura is able to scale up its funding when required.

TSP has a track record of very low delinquency and default rates. The average default ratio and the average delinquency ratio has been nil for the period between June 2008 and June 2014[92]. The high quality of the assets underlying TSP explains this strong performance. The underlying portfolio consists of receivables from invoices to pay for commodities which are core to the industrial process of the obligors. This makes the obligors more likely to honor the trade receivable invoices, even in cases of financial distress, as compared to their other liabilities, implicitly creating a degree of seniority for these trade receivables in the debt pecking order. This is also evidenced in various studies which have demonstrated low default rates and high recovery rates on securitization transactions which use trade receivables as the underlying assets[93].

The securitized trade receivables have obligors that are located in various countries for the purchase of crude oil, oil products, non-ferrous metals, non-ferrous metal concentrates, iron ore and coal, many of whom are located in emerging markets. Receivables benefit in many cases from payment undertakings provided by banks which alleviate the credit risk of the underlying obligors. The diversity

90 Conduit market refers to investors and securities with a shorter investment horizon in comparison to the term market. The market is also comparatively more flexible than that of the term market.
91 These placements are done primarily through bilateral discussions.
92 Trafigura Performance Review presentation dated May 2014.
93 See for example: ICC Trade Register Report 2014.

of obligors is also an added incentive for investors who usually shy away from concentrated portfolios. In order to achieve and maintain the diversity of obligors, TSP has certain structural prerequisites such as concentration limits on obligors, country of incorporation and companies which are part of an integrated group. The limits on individual exposures are set based on the rating of the underlying obligor on three different levels: country, group[94] and obligor. This allows the investor to benefit from a diversified portfolio as well as maintain their exposure to obligors with a low credit risk profile.

The transaction also benefits from a credit enhancement mechanism[95] which is adjusted on a weekly basis according to the composition of the pool and its performance. This means that credit enhancement levels adjust dynamically to reflect the credit quality of the portfolio.

Potential risks

- **Deteriorating financial profile of the originator (Trafigura):** TSP relies heavily on the servicer who is responsible for overall operations in relation to the program. In addition to being the originator of the receivables, Trafigura is also the servicer of the receivable pool (i.e. in charge of collecting and recovering cash on the receivables). As a result, there is a credit linkage between TSP and Trafigura's perceived credit profile. In order to ensure the continuity of the program in the event that Trafigura cannot continue its role as service, TSP relies on a contracted ('hot') back-up servicer and matching agent (Societe Generale) which has the process and system in place to take over the role of servicer on very short notice. This helps mitigate the risk up to an extent.

- **Rating downgrade leading to a lower credit profile of the underlying assets (trade receivables):** The credit profile of the underlying assets is supported by credit enhancements such as LOC provided by the obligor's bank. If the rating of the bank providing the letter of credit is downgraded as a result of performance-related issues, this could impact the rating, cost and/or capacity of the program.

- **Negative impact from implementation or changes to the Basel framework coupled with other anticipated changes to the regulatory environment:** The Basel framework has not been fully implemented in all participating countries. Implementation of the framework in relevant jurisdictions may affect the risk-weighting of the MTN and VFN for investors who are or may be subject to capital adequacy requirements under the framework. In many jurisdictions, there is increased political and regulatory scrutiny of the ABS industry. This has resulted in increased regulation which may have an adverse impact on the regulatory capital charges applicable to certain investors for holding securitized instruments.

94 Group refers to the subsidiaries or affiliate companies.

95 The dynamic enhancement is provided by way of a subordinated loan granted by Trafigura which would absorb the first loss piece and ensures that Trafigura has "skin in the game". The class A notes (rated AAA/Aaa by S&P/Moody's respectively) benefit from a floor of 15% credit enhancement and the class B notes (rated BBB/Baa2 by S&P/Moody's respectively) benefit from a floor of 9% credit enhancement.

8. FRANCHISE: DOMINO'S

Basic concept

This securitization involves the transfer of rights to future cash flows generated by franchise assets, to a separate legal entity which in turn issues securities to investors. Franchise agreements, intellectual property and the right to receive royalties are the most common types of revenue-generating assets underlying a franchise securitization transaction. The use of franchise securitization can provide franchisors with an alternative source of cost-effective funding through capital markets.

Key takeaways

- A high quality franchisor seeking to borrow funds can typically save upwards of 200 basis points a year using franchise securitization instead of establishing bank credit facilities or engaging in a traditional debt offering.
- The critical structural feature of a franchise securitization is the ring-fencing of revenue-generating assets.
- The credit rating assigned to franchise securitization offerings will usually be superior to the rating of the franchisor. The use of securitization techniques can isolate agreements, intellectual property and royalties in a manner that makes the securitization vehicle bankruptcy remote from the franchisor. Therefore, the credit rating for the securitization vehicle will no longer rely on the franchisor's overall creditworthiness but will instead be dependent on the predictability of royalty receipts and other revenue streams.

Key metrics

- Domino's operates 9,700 locations across all US states and more than 70 international markets. Approximately 96% of these store locations are franchised with the majority of the franchisees being SMEs.
- In 2012, Domino's Pizza Master Issuer LLC - Series 2012-1 raised USD1.675 billion in a private placement transaction. The deal issued USD1.575 billion of fixed rate senior secured notes and USD100 million of variable funding senior notes.

Background

A franchisor's revenue stream can be "securitized" (that is, turned into securities) and ring-fenced in an entity that is bankruptcy-remote from the franchisor itself. Franchise agreements, intellectual property and the right to receive royalties are the most common types of revenue-generating assets underlying a franchise securitization. However, a franchisor can also elect to engage in a "whole business securitization", in which case the franchisor securitizes the multiple revenue streams that it desires to monetize such as construction, equipment, furniture, fixtures and loan receivables from franchisees whose build-out cost[96] are financed by the franchisor.

Once the assets are made bankruptcy-remote, the franchisor's creditworthiness is no longer a determinant of the franchise asset values[97], which will instead be based on the predictability of royalty receipts and other revenue streams. Securitization of receivables is not a novel concept and the technique has been used over the past thirty years to fund mortgage, credit card, health care and automobile lease receivables. However, the first successful securitization of a franchisor's royalty receipts was only achieved in 2000 when Arby's Inc. (now known as Arby's Restaurant Group) raised USD290 million through the securitization of its royalty receipts, which had since been closed out through full repayment of the securitized notes.

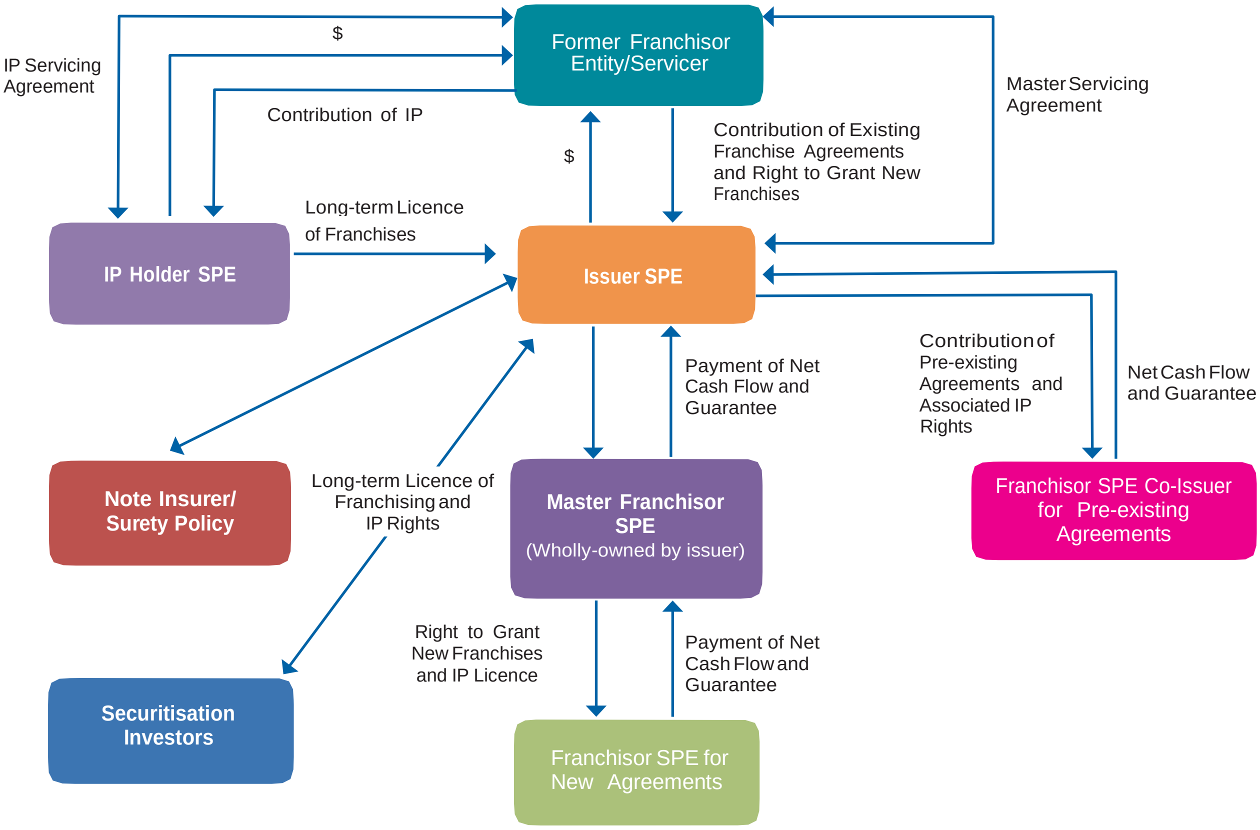
A simplified illustration of the franchise securitization structure is set out in Diagram 12.

96 Build-out cost refers to the cost associated with either financing the acquisition or the construction of the asset.

97 While assigning a credit rating to the franchise securitization, the rating agency considers the viability and robustness of the revenue stream even in the event that the franchisor becomes insolvent.

Diagram 12

Franchise Securitization Structure



Source: Franchise Securitization Financing by David J. Kaufmannn, David W. Oppenheim and Jordan E. Yarett

A franchise securitization structure consists of various participants. In these types of transaction, the franchisor whose revenue streams will be securitized is known as the *originator*, *contributor* or *transferor*. The newly created, structurally isolated and bankruptcy-remote entity that will acquire the franchisor's revenue-generating assets, by means of a "true sale" and that will offer securitized notes backed by those assets is a *special purpose entity* (SPE). Prior to the global financial crisis, an *insurance company* would often irrevocably guarantee repayment of the principal and/or interest due on the securitized notes. Sometimes, a *credit enhancer,* typically a bank, may be brought in to enhance the creditworthiness of the securitization offering by means of letters of credit, surety bonds and/or guarantees.

Domino's Pizza: Details of the structure[98]

Domino´s is the largest pizza delivery business in the US by consumer spending and the second largest pizza company in the world. Domino's operates through a network in 9,700 locations across all 50 states in the US and in more than 70 international

98 Source: Rating agency reports.

markets. Approximately 96% of these stores are franchised with the majority of franchisees being SMEs[99], while the remaining 4% are company-owned. Domino's had entered into a monoline insurer-guaranteed transaction in 2007 and subsequently refinanced this transaction with proceeds from a securitization transaction carried out in 2012. According to a Domino's press release[100], Domino's Pizza Master Issuer LLC - Series 2012-1 raised USD1.675 billion, including USD1.575 billion of the fixed rate senior secured notes and USD100 million of variable funding senior notes, in a private placement transaction. The securitized notes were backed by franchise royalties, and fees from both domestic and international franchisees, company-owned stores as well as supply chain profits from the US and Canada. The senior notes of Domino's Pizza Master Issuer LLC - Series 2012-1, which have an anticipated repayment term of seven years, and a legal maturity of 30 years, were rated BBB+(sf) by S&P and Baa1(sf) by Moody's.

Challenges and solution provided

As noted above, a franchisor seeking to borrow funds can typically save upwards of 200 basis points a year by using franchise securitization as compared to establishing bank credit facilities or engaging in a traditional debt offering. However, the level of savings for the franchisor in the first year may be lower due to the significant amount of legal, underwriting, rating agency and other credit enhancement fees relating to the execution of the securitization transaction. Subsequently however, the cost savings to a franchisor which undertakes a securitization transaction on its royalty receipts as opposed to conventional bank financing can prove to be compelling.

In the case of conventional bank financing or new debt offering, the amount of financing that can be raised by a franchisor and the interest rate payable thereon is entirely dependent on the franchisor's balance sheet and income statement, as well as the rating agency's assessment of the franchisor's overall financial position. In a securitization financing, these elements are not pertinent. Instead, a franchisor's revenue stream is securitized whereby the revenue stream is structurally isolated in a legally independent and bankruptcy-remote entity. As a result, a credit rating assigned to a securitization offering will usually be superior to that assigned to the unsecured debt of the franchisor.

In order to protect the franchisor from potential bankruptcy claims, two or more SPEs are frequently utilized in a securitization of royalty receipts to further achieve the goal of isolating the issuer SPE's assets from those of the contributing franchisor to avoid intermingling of assets in the event of bankruptcy of the franchisor. Typically, the revenue-generating franchise agreements are sold or contributed to the issuer SPE while a second SPE will receive by means of sale or contribution the intellectual property rights of the contributing franchisor (including the franchisor's trademarks, service marks, trade name, patents, proprietary and/or confidential information, trade dress, copyrights, software, computer programs and other pertinent know-how). In turn, these assets are licensed back to the issuer SPE so that it, or its affiliates and subsidiaries, can offer and sell franchises conveying rights to the intellectual property. By utilizing this structure to transfer the franchisor's intellectual property, which is key to the administration of its network and ability to sell additional franchises, the transferred intellectual property is potentially protected from any bankruptcy claims by the franchisor's creditors as well as other creditors of the issuer SPE.

Potential risks

- **Inability to maintain the bankruptcy remoteness of the SPE:** The critical structural feature of a franchise securitization is the isolation of the revenue-generating assets. The

[99] According to CNN Money article, *"The Domino's Pizza dream: Deliveryman to store owner"* published in April 2013, about 90% of Domino's franchises are owned by former deliverymen or entry-level workers.

[100] Domino's press release, *"Domino's Pizza Completes Recapitalization; Declares $3 Per Share Special Dividend"*, 16 March 2012.

benefits of the transaction are eroded if the structure or nature of the underlying franchise agreements or other contracts cannot be protected against claims from creditors of the franchisor.

- **Liquidity constraints:** The collection of royalties or other receivables may not match the timing of payments to investors of securitized notes. Liquidity facilities are often used to mitigate this risk.

- **The transaction may lack the structural elements required to secure a high credit rating:** The securitized notes must obtain a sufficiently high credit rating to be able to enjoy cost-effective funding using a securitization structure. The inability to obtain an optimal credit rating will result in investors demanding a higher coupon rate. It may also result in the franchisor abandoning the securitization transaction or downsizing the transaction due to a smaller potential investor base, as certain categories of institutional investors and financial institutions require a minimum credit rating for their investments.

9. AUTO LOAN: HYUNDAI

Basic concept

Korean Auto Loan ABS is an example of a cross-border ABS[101] transaction in which the senior tranche has been structured to achieve a rating above the sovereign ceiling by utilizing a two-tier SPV. The securities issued are denominated in foreign currency and the structure employs currency swaps to address foreign exchange risks. Utilization of this securitization structure has enabled Korean commercial auto lenders to access international capital markets and diversify their funding sources.

Key takeaways

- Non-deposit taking auto lenders in Korea have historically relied on ABS markets to reduce funding costs relative to traditional domestic bonds and commercial paper.
- The Korean cross-border ABS has been assigned a credit rating of AAA[102], above the sovereign ceiling as well as the unsecured credit rating of the originator.
- The Korean cross-border ABS has allowed Korean commercial auto lenders to access international capital markets and allowed them to diversify their funding sources.
- The stable performance demonstrated by the securitized pool which consists of auto loans originated by credit specialist companies, has helped foster investor confidence and allowed issuers such as Hyundai Capital Services (HCS) to access the market on a regular basis with new issues that are well received by international institutional investors.

Key metrics

- At the end of fiscal 2013, HCS' funding balance was KRW17.8 trillion (USD18 billion[103]), including 7.9% from offshore ABS and 26.4% from offshore bonds.
- Over the years, HCS has been maintaining around 15% to 20% of its total funding requirements from the ABS market.

Background

The main auto lenders in Korea are finance companies which do not take deposits as a source of funds. They mainly fund their auto lending business from the wholesale capital market by issuing commercial paper or bonds as well as by borrowing money from other financial institutions. Although reliance on ABS funding has declined from a peak of over 40% in early 2004, it contributed roughly 20% of the funding for auto lending in 2009 and 2010. Preliminary disbursement of the loan is made by the auto lenders after applying stringent credit checks. The credit information sharing system in Korea has a unique two tier structure. The first tier comprises a non-profit private organization and the second tier comprises private organizations that collect credit information from lenders such as financial institutions and department stores on a contractual basis and provides credit scoring. The auto loans are primarily disbursed to Korean households which are known to have relatively lower debt servicing burdens than their US counterparts.

A typical cross-border auto ABS transaction involves a two-tier SPV comprising onshore and offshore SPVs. At closing, the originator/seller entrusts auto loan receivables to a Korean trustee, which in turn issues a Class A certificate (also known as a senior certificate) and a Class B certificate (also known as a subordinated certificate). The senior certificate is transferred to the onshore SPV (the bond issuer) and the subordinated certificate is retained by the originator. The onshore SPV then issues the bonds to an offshore SPV (the note issuer) and the note issuer subsequently issues the notes to raise the funds needed to subscribe for the bonds. The bond proceeds are used to fund the purchase of the senior certificates by the bond issuer.

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101 ABS (Asset-Backed Securities) underlying auto loans.

102 Have been assigned AAA by S&P, Moody's and Fitch to senior tranche issued by Hyundai Capital Services. The transactions refer to issuance between September 2006 and August 2011. However the recent issuances in October 2012 and November 2013 have not been rated by international agencies.

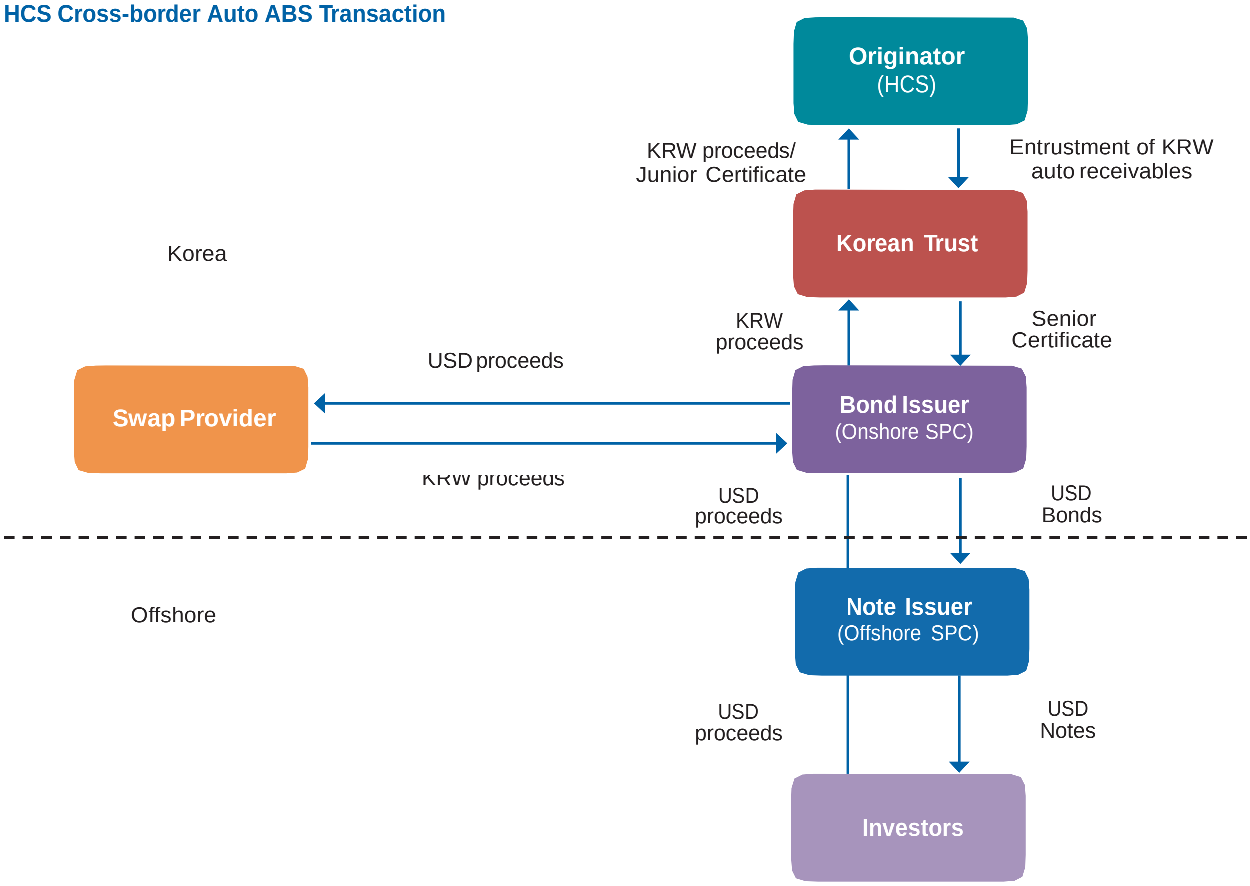
103 As of 19 August 2014.

Hyundai Capital Services

HCS is a captive finance provider of Hyundai Motor Group and presently holds around 70% of the domestic auto lending market. The size of its total asset portfolio is KRW20.3 trillion (USD20 billion[104]), out of which 78% are auto-related assets. The majority of auto assets (52%) are new car installment loans which have historically experienced delinquency rates of approximately 1%[105]. Taking advantage of a stable portfolio, HCS has issued ABS every year since its initial offshore ABS issuance in 2002. At the end of 2013, HCS' funding balance was KRW17.8 trillion (USD18 billion[106]), including 7.9% from offshore ABS and 26.4% from offshore bonds. HCS has originated a majority of the outstanding cross-border Korean auto ABS transactions. As a finance company, HCS does not take deposits from customers but instead funds its auto lending business from the wholesale market by issuing a combination of ABS, corporate bonds, commercial paper and by borrowing from banks. Over the years the company has been maintaining around 15% to 20% of its total funding balance from the ABS market. The SME portion of auto loans and installment in the pool is usually maintained at around 10% in cross-border transactions due to the risk-averse nature of foreign investors while it is at about 70% for domestic transactions.

A simplified illustration of the HCS cross-border auto ABS transaction is set out in Diagram 13.

Diagram 13
HCS Cross-border Auto ABS Transaction



104 As of 19 August 2014.
105 For the period between June 2009 and June 2014.
106 As of 19 August 2014.

Challenges and solution provided

Finance companies are the main auto lenders in Korea, commanding well over 90% of the market. Similar to banks, they offer clients various types of loan products. However, unlike banks, they do not take deposits as a source of funds. Instead, they finance their lending business through the wholesale capital market by issuing commercial paper or bonds as well as borrowing money from other financial institutions. The cost of funding associated with borrowing in the wholesale market is primarily dependent on the creditworthiness of the borrower and the interest rate environment. HCS, the largest auto lender in Korea, commands over 70% of the auto lending market and has an issuer rating of 'BBB+/ Stable', which was assigned by Fitch on 24 April 2014. The option of using high-rated ABS may result in a significantly lower funding cost for HCS in comparison to other sources of financing such as commercial paper and bonds[107].

Since the Korean auto lending market is very concentrated, with its top four lenders collectively controlling over 90% of the market, smaller lenders are at a disadvantage with regards to funding cost due to their size and credit profile. An alternative that these smaller companies have used to level the playing field is to increase their reliance on securitization where the rating is based on the credit performance of Korean auto loans, which has been consistently strong since the inception of the market, rather than the issuer's own credit profile.

In comparison with the US prime auto ABS market, the Korean auto ABS market has wider spreads given limited secondary market trading relative to the US market. The credit performance of Korean auto loans has been strong and borrowers typically have relatively low debt servicing burdens. This combination of pricing, strong performance and conservative lending presents a potentially compelling opportunity for international investors.

Many of these finance companies have not been assigned an international rating by a global credit rating agency, which limits their ability to issue offshore bonds. This was one of the primary reasons why HCS issued offshore ABS backed by auto loans. This allowed HCS to access international investors as well as achieve AAA ratings for its securitized tranches. Offshore issuances also allow companies to diversify funding away from purely domestic sources.

Why it is successful

The auto ABS transaction described here allows lenders to source funding from international investors and allows the issuer to obtain a higher rating than that of the country of the issuer. In this way, the issuer may benefit from a lower funding cost in addition to accessing a foreign investor base.

Details specific to the Korean cross-border auto ABS

South Korea has an A+ sovereign rating[108], although the senior tranches of the cross-border ABS transaction have achieved AAA ratings. Under the sovereign rating framework, there is a local currency bond ceiling (LCBC)[109] and a foreign currency bond ceiling (FCBC)[110] for each country. The LCBC summarizes general country-level risks, excluding foreign-currency transfer risk that should be taken into account when assigning local currency ratings to locally domiciled obligors or locally originated structured finance transactions. If the auto lenders were to directly issue foreign currency denominated bonds, these bonds would be subject to the FCBC ceiling, which is primarily based on foreign currency conversion risk. Even though the cross-border transactions are denominated in foreign currency, the issuer enters into currency swap agreements to hedge its foreign currency exposure. Therefore, the

[107] The cost advantage derived from funding through ABS vis-à-vis corporate bond offering is evidenced by the recent ABS issuance by HCS in November 2013. HCS was able to benefit from a cost saving of 24 basis points with regard to its recent issuance. (The comparison takes into account funding cost of a corporate bond with a rating of AA+ and maturity of 3 years).

[108] Single A+ rated based on the rating assigned by Standard & Poor's.

[109] Local Currency Bond Ceiling (Korea): AA+ (Local Rating), Local Currency ABS: AAA (Local Rating).

[110] Foreign Currency Bond Ceiling: BBB+(S&P/ Fitch), Local Currency ABS: AAA (S&P/ Fitch).

rating for the transaction is capped only by LCBC. The LCBC of South Korea was AAA prior to a downgrade in 2009, allowing the newly originated cross-border structured transaction to also be rated AAA[111].

Performance of previously rated outstanding transactions

No outstanding transactions have been downgraded or put on negative rating watch due to their underlying performance. There have been no write-downs to any rated notes. The only downgrade of a transaction was in 2009 which was due to the rating agencies downgrading Korea's LCBC and was unrelated to any performance issues. A track record of strong performance with respect to the underlying assets, coupled with significant credit enhancement in the structure, has allowed the transactions to maintain their ratings. The structural stability of past issuances has fostered investor confidence. This was recently demonstrated when HCS issued its latest tranche of auto ABS, which was fully subscribed despite not being rated by any of the international rating agencies.

Potential risks

- **Possible deterioration of the credit pool:** The performance of the underlying assets may be weaker if, for example, household debt, credit conditions or debt servicing metrics of the borrowers weaken. This would lead to higher delinquency and default rates. To mitigate these risks, issuers such as HCS have selected auto loans with higher expected performance and lower probability of defaults as the underlying assets of these transactions.

- **Regulatory pressures leading to contraction of the securitization market:** The Basel Committee on Banking Supervision (BCBS) has responded to the shortcomings in the Basel II framework with various enhancements. Risk-weighted capital requirements for securitization exposures have increased to 40% for the highest rating (AAA to AA-) compared to 20% previously. Therefore, many structured products prevalent before the global financial crisis will be substantially more expensive to hold on banks´ balance sheet. This has impacted the number of new issues and the participation of regulated institutional investors in the securitization market.

- **Rating crises:** Unanticipated and abrupt credit rating downgrades have occurred about once every three years over the past 22 years. However, during the global financial crisis, there were prevalent downgrades of structured credit products and debt instruments issued by financial institutions. In addition, the proliferation of rating-based regulations and triggers, and the impact of these downgrades spread quickly through the financial system with devastating consequences for outstanding structured securities. A similar downgrade was experienced by Korean ABS issuers where outstanding transactions were downgraded from AAA to AA- primarily due to reinforced counterparty risk guidelines by the international rating agencies and not as a consequence of the performance of the underlying assets.

[111] Similar methodology exists across all international rating agencies.

D POOLED INVESTMENT VEHICLES

10. LISTED SME INVESTMENT VEHICLE: BDC

Basic concept

Business development companies (BDCs) are closed-ended investment funds in the US that are operated primarily for the purpose of investing in, and providing managerial assistance to SMEs and financially troubled businesses. Most BDCs are publicly traded with shares listed on US national exchanges.

Key takeaways

- BDCs provide investment managers who invest primarily in SMEs with access to permanent capital raised from the general public.
- BDCs provide retail investors professional investment management and the ability to invest in private SMEs without needing to meet any investor qualification requirements.
- BDCs are subject to less restrictive regulation and have greater operational flexibility than other regulated investment companies.
- Due to the market environment and tax policies, the majority of BDCs serve as an intermediary between investors seeking dividend payments and SMEs seeking financing.

Key metrics

- The number of BDCs has increased from less than a dozen in 2000 to more than 50 as of December 2013.
- BDCs have about USD70 billion in assets under management as of 30 June 2014.
- During the two-year period ended 31 December 2013, traded BDCs collectively raised USD11.8 billion in capital, which included approximately USD6.8 billion in follow-on equity offerings, USD2.7 billion in senior note offerings, USD1.5 billion in convertible debt offerings and USD838 million from IPOs of nine new BDCs.

Background

BDCs are a special category of closed-end investment company that are required to invest the majority of their assets under management in SMEs and financially troubled businesses in the US. A key advantage of this investment vehicle is its ability to raise funds from the public, including retail investors, through public offerings. For this reason, most BDCs are publicly listed on one of the US national stock exchanges. Listed BDCs must comply with the listing and disclosure requirements applicable to other publicly listed companies. However, given BDCs' specialized function of investing in SMEs, they are subject to less restrictive regulatory requirements than those applicable to registered closed-end investment companies by the Investment Company Act of 1940 (1940 Act).

A BDC may have an internal investment management team but the majority of BDCs today hire external investment managers. BDCs generally obtain pass-through tax treatment by qualifying as Regulated Investment Companies (RIC) for federal tax purposes[112].

[112] To qualify as an RIC, a BDC must, among other things: 1) elect to be an RIC; 2) hold a diversified pool of assets; 3) distribute substantially all (e.g. 90%) of its taxable income each year.

Given the requirements of RIC, BDCs distribute substantially all of their taxable income every year. BDCs generally charge two performance fees: one based on capital gains and the other based on income. As a result, most BDCs have a debt investment focus to take advantage of the income-based performance fee as well as the fee for capital gains[113]. The combination of having a debt investment focus and distributing substantially all of its taxable income makes BDCs a good fit for institutional and retail dividend-seeking investors who understand the risks of investing in SMEs.

BDCs are subject to investment restrictions to ensure they are used for the primary purpose of investing into SMEs. The majority of BDC assets must be invested in "qualifying assets", generally cash, high quality short-term debt and securities issued by SMEs or financially troubled businesses[114]. A BDC's leverage is limited to a 200% asset coverage ratio and BDCs are restricted from dealing with related parties. BDCs are also subject to corporate governance restrictions. A majority of directors on the Board of a BDC must be independent directors who are given the power and responsibility to oversee key operational and business decisions. Finally, once it elects to be a BDC, the election may not be withdrawn unless approved by shareholders.

BDC was created under the Small Business Investment Incentive Act of 1980, which amended the 1940 Act. Considerable initial interest in BDCs dissipated in the early 1990s, and by 2000, there were fewer than a dozen active BDCs. Subsequent to 2003, the number of BDC IPOs increased. Almost all BDCs since then have had a debt-investment focus to fund generous distributions that attract retail investors in a low interest rate environment. As of December 2013, there were more than 50 BDCs, and on 30 June 2014, the BDC industry has over USD70 billion of assets under management[115].

During the two-year period ended 31 December 2013, traded BDCs collectively raised USD11.8 billion in capital, which included approximately USD6.8 billion in follow-on equity offerings, USD2.7 billion in senior note offerings, USD1.5 billion in convertible debt offerings and USD838 million raised from IPOs of nine BDCs[116]. This growth of BDCs can be attributed to several factors[117]. First, after the global financial crisis, with bank lending drying up, SMEs' demand for funding drove the growth of BDCs. Second, most investors in BDCs in recent years have achieved reasonable returns. Third, BDCs, as closed-end investment companies, provided asset managers an opportunity to raise more stable assets under management compared to open-ended investment vehicles. Fourth, the attractiveness of BDCs has increased among private fund asset managers post Dodd-Frank[118]. Before Dodd-Frank, many asset managers chose to manage private funds as opposed to BDCs due to perceived disadvantages of having to register as an investment advisor. These disadvantages became irrelevant with the passage of Dodd-Frank which requires many of these unregistered private fund asset managers to register even if they do not manage a BDC[119].

In addition, the ability to use the BDC structure in conjunction with other programs that encourage financing for SMEs also drove the growth of BDCs. Many BDCs have subsidiaries that are licensed as Small Business Investment Companies (SBICs). SBICs can access funding from the debenture program offered by the Small Business Administration (SBA)[120]. SBA debentures carry long-term fixed rates that are

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113 Matt Forstenhausler, *"Business development companies in the spotlight"*, Ernst and Young.

114 Under the 1940 Act, a business development company may not acquire any asset other than "qualifying assets", as described in Section 55(a) of the 1940 Act, unless at the time of acquisition, qualifying assets represent at least 70% of the company's total assets.

115 Cynthia M. Krus and Lisa A. Morgan, *"Business Development Companies: The 'New' Investment Vehicle of Choice Post-Volcker?"*, The Investment Lawyer, Vol. 21, No. 3 (March 2014).

116 Ibid.

117 Ernst and Young, *"Business development companies in the spotlight"*. Dodd–

118 Frank Wall Street Reform and Consumer Protection Act passed in 2010. Ernst

119 and Young, *"Business development companies in the spotlight"*.

120 The SBIC program was created in 1958 to fill the gap between the availability of venture capital and the needs of small businesses in start-up and growth situations. Through the program, SBA invests long-term capital in privately-owned and managed investment firms licensed as SBICs through the use of loans, or debentures. Debentures are issued by SBICs to the SBA and have interest payable semi-annually with 10 year maturities. A SBIC may invest only in "small businesses", and must invest at least 25% of its invested funds in "smaller enterprises" as defined by the SBA. According to SBA, it generally provides up to USD2 of government-guaranteed debt for every USD1 of private capital, up to a maximum of USD150 million. At the end of 2013, the SBIC program has USD9.5 billion invested in over 200 funds. Together with private capital committed to SBICs topping USD10.3 billion, the program totals USD19.9 billion in capital resources.

lower than rates on comparable bank loans and other debt. Recent BDC IPOs also leverage the incentives granted by the JOBS Act[121]. The JOBS Act allows certain BDCs to gain the Emerging Growth Company (EGC) status, meaning they can take advantage of limited but valuable relief on disclosure and audit requirements, leading to cost savings for both initial and subsequent offerings. Being an EGC also allows a BDC to reduce compliance and audit costs related to the internal control requirements of Section 404 of the Sarbanes-Oxley Act for up to five years[122].

Two recent BDC IPOs that were successfully completed are Monroe Capital[123] and TriplePoint[124]. From a regulatory perspective, both IPOs took advantage of regulatory incentives provided by the BDC structure and the JOBS Act. In addition, both are exploring the possibility of setting up SBIC subsidiaries[125]. From a business perspective, both BDCs mostly target debt investments in SMEs, use credit facilities primarily from commercial banks to leverage its lending operations and hire external investment managers with extensive expertise, experience and networks in making investments in SMEs[126]. However, these BDCs have adopted different investment strategies. Monroe Capital seeks to work with commercial banks and private equity firms in deal sourcing and in providing debt financing for SMEs and leveraged buyouts[127]. In contrast, TriplePoint focuses on investing in technology, life science and other high-growth companies backed by venture capital and which are close to going public. It will source deals from venture capital firms and invests both in debt and equity[128]. Therefore, these BDCs can jointly fund SMEs with venture capital and private equity firms as they each invest in different parts of the capital structure. BDCs can also work jointly with commercial banks as the latter retains institutional knowledge and have an interest in providing other services to SMEs such as deposit accounts and cash management.

Challenges and solution provided

BDCs used in conjunction with other policy initiatives can provide solutions to some of the challenges related to SME financing.

First, as a public company, a BDC provides a channel for retail investors to invest in private SMEs. While private funds are generally restricted to only accredited investors, BDCs are open to all retail investors. This broadens the investor base for SMEs and introduces more sources of funding to SMEs.

Second, as a closed-end investment company, a BDC can raise permanent equity capital for the purpose of investing in SMEs. Having permanent equity capital in place enables BDCs to obtain leverage to further enhance its ability to finance SMEs. This is true both in the case of commercial credit facilities and SBICs. More importantly, as compared to open-ended investment companies, BDCs can fund longer term illiquid loans to SMEs.

Third, BDCs could be a platform to further develop proven private SME investment practices and business arrangements. Some of the challenges to financing SMEs include difficulties in deal sourcing, due diligence with limited data, post-deal monitoring and economies of scale. As the recent BDC IPO examples illustrate, BDCs can be used by experienced managers to raise funding to grow their practices. The funding from BDCs can complement the financing and services provided by other financial institutions such

121 Ernst and Young, *"Business development companies and the JOBS Act"*.
122 Ibid.
123 Monroe Capital Corporation (NASDAQ: MRCC) closed its IPO on 31 October 2012, raising USD75 million.
124 TriplePoint Venture Growth BDC Corp. (NYSE: TPVG) closed its IPO on 11 March 2014, raising USD143.7 million.
125 Form N-2 registration filings.
126 Form N-2 registration filings.
127 According to Form N-2 filings: Monroe Capital will source and share middle-market clients with commercial banks, with Monroe Capital providing debt financing while the banks provide deposit and cash management services. It will also work with private equity firms on providing leverage finance for LBOs, often in the form of Unitranche debt.
128 According to Form N-2 filings: TriplePoint will primarily focus on venture growth stage companies that are already backed by venture capital and close to going public. Apart from returns on its lending, TriplePoint also seeks to generate equity upside through warrants and equity investments.

as commercial banks, venture capitals and private equity firms. At the same time, BDCs could overcome some of the challenges for SME financing by leveraging on the relationships and knowledge of these institutions.

Finally, regulatory exemptions for BDCs provided by the JOBS Act decreases regulatory cost. Although there is no clear evidence that this cost saving is passed on to SMEs, changing the economics of such investment vehicles should lead to an increased supply of funding, as demonstrated by the recent growth of assets under management for BDCs.

Why it is successful

As some noted, there are attractive market opportunities presented by the reduction of credit lending to SMEs by commercial banks[129]. But the strong growth experienced by the BDC industry in recent years is also due to the increase in the relative attractiveness of BDCs for investors, issuers and investment managers.

For retail investors, BDCs are effectively the only available vehicle to invest in private SMEs. Unlike private fund investments, BDCs do not require investors to meet any criteria in terms of income, net worth or sophistication. BDCs extend illiquid medium to long-term loans to SMEs, but still provide investors with liquidity as a publicly-traded company[130]. Given its debt-investment model and election as RICs, BDCs are a natural fit for investors who target dividend-paying stocks and understand the risks of investing in SMEs.

BDCs are also an attractive funding vehicle for issuers and investment managers. First, BDCs give investment managers the ability to access retail investors. Second, managers of BDCs have access to "permanent capital" that is not subject to shareholder redemption. Third, managers of BDCs may charge performance fees that no sophisticated institutional investor would tolerate. Finally, BDCs have greater flexibility as compared to some of the other registered investment funds with respect to the use of leverage[131]. Finally, as mentioned earlier, recent financial regulatory reforms may have also made BDCs more attractive relative to other alternatives.

Potential risks

Some of the risks specific to BDCs are:

- As BDCs target yield-seeking investors and the majority of their investments are in securities issued by SMEs or financially troubled companies, in a recession these issuers may default, causing the BDC to cut or eliminate its dividends.
- Regulatory exemptions such as less disclosure, and deferred internal compliance and audit requirements, may impair investors' ability to analyse risks associated with BDCs, and increase the possibility of investor loss, especially in relation to retail investors.
- Policy changes or inability to qualify for certain policy and regulatory incentives could be a risk factor for BDCs and investors. One such example is the recent controversy over the use of Master Limited Partnerships (MLP). Given that these vehicles erode tax revenue, MLP approvals are currently being suspended[132].

[129] According to Form N-2 registration filings of Monroe Capital and TriplePoint.
[130] Ze'-ev D. Eiger, "Frequently Asked Questions About Business Development Companies", Morrison & Foerster LLP, 2013.
[131] Ibid.
[132] *"U.S. Treasury looking at increase in master limited partnerships"*. 11 August 2014. Reuters.

MARKET-BASED SOLUTIONS: INFRASTRUCTURE

IV. MARKET-BASED SOLUTIONS: INFRASTRUCTURE

A EQUITY CAPITAL MARKET

11. ASSET SPIN-OFF: YIELDCO

Basic concept

YieldCo, a publicly listed equity vehicle, is an emerging asset class in the North American energy sector. A YieldCo is created through the spin-off of power generating assets that have a stable cash flow profile resulting from credible long-term power purchase agreements and cost structures that are less cyclical. The relatively stable and growing dividend income that YieldCos provide is attractive for investors and helps issuers raise equity capital for infrastructure assets at a higher valuation.

Key takeaways

- To avoid the conglomerate discount, associated with the diverse asset base of large energy companies, assets that have a similar profile of providing steady and predictable cash flows are grouped together in a listed company.
- The preference of dividend-focused equity investors for stable and growing dividend income leads to higher equity valuations and lower cost of capital for the company.
- Credible long-term power purchase agreements that ensure stable revenues and less cyclical cost structures (e.g. renewable power such as wind and solar) are key factors that contribute to the stable cash flows of the assets.

Key metrics

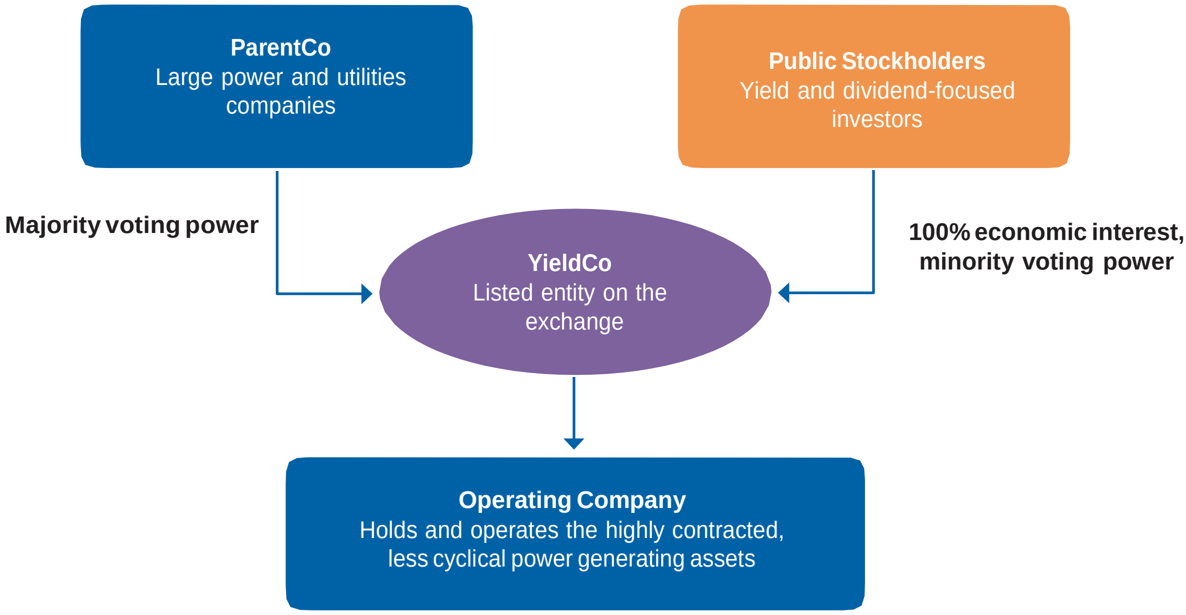
- The average YieldCo dividend payout ratio ranges from 70% to 90% of distributable cash flow and long-term dividend growth targets range from 8% to 15%.
- The first wave of YieldCos include publicly listed companies NRG Yield Inc., TransAlta Renewables Inc. and Pattern Energy Group Inc. As of July 2014, all three are performing well relative to the S&P 500 index.

Background[133]

The first three public market YieldCos were listed in the US and Canada between July and September of 2013. The structure was created to appeal to investors who ascribe a higher valuation to assets that produce stable and growing dividend income. With this goal in mind, large power generating companies (ParentCo) spun-off assets that produce a stable and growing dividend income into a separate listed company (YieldCo), which they control. YieldCo issues Class A shares, which carries 100% economic interest and a minority voting power in YieldCo, to external investors. Meanwhile, Class B shares, which have majority voting power in YieldCo, are issued to ParentCo. YieldCo usually appoints an independent board of directors to protect the interests of the holders of the Class A shares. According to industry research, the average YieldCo dividend payout ratio ranges from 70% to 90% of distributable cash flow and long-term dividend growth targets range from 8% to 15%.

133 Please note that some of the more recent YieldCo offerings have presented some variations on the model described here.

Diagram 14
YieldCo Structure[134]



A simplified illustration of the YieldCo structure is set out in Diagram 14.

The first wave of YieldCos includes publicly listed companies NRG Yield Inc., TransAlta Renewables Inc. and Pattern Energy Group Inc. As of July 2014, all three are performing well relative to the S&P 500 index. This is partly due to the search for yield by investors in the current low interest rate environment and the attractive dividend growth rate offered by YieldCos. YieldCos' major investors are large institutional investors such as mutual funds and hedge funds.

Challenges and solution provided

A YieldCo is an incremental solution to the challenge of lowering the cost of capital for power producers. ParentCos already have direct access to the public equity market. However, given ParentCos often hold a mix of power generating assets in different phases of construction, levels of cyclicality, types of contracts and pricing, among others, it is difficult for investors to evaluate the inherent risks of investing in ParentCos. This typically results in ParentCos having a lower equity valuation, known as a "conglomerate discount". The YieldCo structure provides two key features as a solution to the problem: stability and growth.

Assets held in YieldCo are able to produce a more predictable cash flow for three reasons. Firstly, these assets are usually in the post-construction phase. Secondly, most of the assets are contracted assets with very long-term (i.e. over 20 years) power purchase agreements that provide some revenue guarantee. Thirdly, most assets are renewable power generating assets such as solar or wind, where the variable or ongoing costs are less cyclical than traditional power generating assets. YieldCo effectively helps segregate some of the risks and creates an investment vehicle with more stable cash flows for the dividend-focused investor. Commodity sensitive and more cyclical assets remain in the ParentCo.

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[134] Source: Registration filings.

Another important feature of YieldCo is its potential for growth. YieldCo's strategy for growth is through acquisition of new assets from both ParentCo and external sources. According to public filings of one YieldCo, there is an overall favorable industry and market environment for its acquisition strategy. Renewable energy generation assets currently benefit from various federal, state and local governmental policy and incentives in the US. For example, utilities companies are motivated to sign long-term power purchase agreements on renewable assets due to RPS[135] programs. This generates a body of renewable contracted assets in the US, of which a significant portion is held by financial sponsors with relatively short investment fund lives or independent project developers who would like to monetize their investment or recycle capital for new developments. With access to long-term equity capital at a higher valuation, YieldCo has a competitive advantage and is well-positioned to take advantage of acquisition opportunities by carrying out accretive transactions.

YieldCo further enhances its growth prospects by providing transparency on future asset spin-offs or "drop downs" from ParentCo to YieldCo. The offering document of one YieldCo disclosed a list of assets under the "right of first offer" agreement entered into with its ParentCo. ParentCo also indicated that its YieldCo will serve as the primary vehicle for owning and operating its contracted renewable assets. While the agreement and indications are not obligations and no transaction price is set, investors can project dividend growth based on the potential drop downs using market transaction prices.

YieldCo structures can take the listed public equity form and the non-listed private equity form.

Why it is successful

YieldCo structures provides incremental value to both issuers and investors, and appeals to them for the following reasons:

Investors get:

- stable dividend income;
- growing dividend yield of around 8% to 15% due to drop downs and acquisitions;
- liquidity and the ability to exit through listed public company forms;
- ease of valuation given YieldCo holds a number of assets with similar risk profiles; and
- transparency and regulatory scrutiny given that the listed shares are registered and subject to disclosure and other regulatory requirements.

Issuers get:

- long-term, permanent equity capital at a higher valuation, leading to an overall higher enterprise value;
- access to an alternative investor base and lower overall cost of capital;
- stronger competitive position in capturing acquisition opportunities in the market. The ability to raise long-term equity capital at a higher valuation through YieldCo provides differentiation from other market participants; and
- increased flexibility in terms of business model.

Underlying factors such as the presence of certain government policies and incentives, industry scale and environment as well as investor base and knowledge are also important for YieldCos' success. YieldCos can be viewed as a market-based financing vehicle that brings incremental improvement to the industry by leveraging on all of these factors. An example is the large dividend-focused investor base that is able to differentiate the quality of power generating assets and values them accordingly. This significantly reduces the effort needed by market-based intermediaries to align the interests and bridge the understanding of issuers and investors.

[135] "RPS" or renewable portfolio standards, adopted by many US states, requires regulated retail electric utilities to procure a specified percentage of total electricity delivered to retail customers in the state from eligible renewable generation resources, such as solar generation facilities, by a specified date.

Potential risks

While the YieldCo structure is successful as an incremental innovation, it does not fundamentally alter or mitigate the underlying risks present in the sector in which it is used. For the recently listed YieldCos, some key risks are:

- a higher interest rate environment could make the dividend yield model less attractive;
- political, regulatory and policy risks that may lead to a change in the market environment, and the ability of YieldCos to grow and generate income;
- changes to the power purchase agreements or counterparty risk;
- technological innovation could alter the economics of the sector in the long run. An example is nanogrid[136] which could provide more competitive energy prices than YieldCo's assets;
- assets with significant project debt may negatively impact dividend yield; and
- operational risk of the assets.

[136] Nanogrids are small microgrids, typically serving a single building or a single load. As nanogrid technology matures, it may challenge the traditional power supply and generation channels.

12. INFRASTRUCTURE PROJECT IPOs: IPC

Basic concept

The Infrastructure Project Corporation (IPC) listing framework paved the way for measuring the sustainability of a company's performance on the basis of government concessions secured by an infrastructure project company rather than solely considering parameters such as profit track record. This enables companies involved in infrastructure projects with long gestation periods to raise equity financing through an exchange listing.

Key takeaways

- Characteristics of infrastructure project companies make it difficult for them to raise funds through the equity capital markets using the normal IPO listing route.
- Regulators can create a special category of listing requirements and regulations tailored to the characteristics of infrastructure project companies.
- This special listing category provides infrastructure project companies an alternative exchange listing route, facilitates the shift in infrastructure expenditure from the public to the private sector and fosters better risk-sharing, accountability, monitoring and management of infrastructure projects.
- This listing framework also provides retail investors the opportunity to invest in dividend-yielding companies as infrastructure project companies with government concessions generally receive a steady inflow of revenue.

Key metrics

- Under the IPC listing framework, an infrastructure project company will qualify for listing if it possesses the right to build and operate an infrastructure project with total cost of RM500 million (USD153 million[137]) or more.
- Despite the challenging environment during the Asian financial crisis in 1997, RM5.7 billion (USD1.47 billion[138]) was raised via new IPC listings.
- The average dividend payout ratio among the dividend-paying IPCs ranges from 40% to 120%[139].

Background

The IPC listing framework introduced by the Securities Commission Malaysia (SC) in 1995 presents a new and different approach to evaluating the sustainable performance of a company seeking an exchange listing. LTF for infrastructure projects are often complex and challenging, particularly for new companies that lack a well-established track record. In view of this, SC undertook a study to review the utility of the domestic equity capital market to finance infrastructure development. Based on this review, it was evident that equity listings of infrastructure project companies[140] on the domestic stock exchange would provide a much needed funding solution for the infrastructure sector.

Therefore, the SC introduced the IPC listing framework to complement the Malaysian government's initiative to support greater infrastructure development that will drive economic growth through the private sector, as envisaged under the government's

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137 Based on the exchange rate of USD1:RM3.26 as at 18 December 2013.
138 Based on the exchange rate of USD1:RM3.89 as at 30 December 1997.
139 Data sourced from Bloomberg.
140 Infrastructure project companies are defined as companies whose core business is building and operating an infrastructure project which creates the basic physical structures or foundations for the delivery of essential public goods and services that are necessary for the economic development of a state, territory or country, such as the construction and operation of roads, bridges, tunnels, railways, mass transit systems, seaports, airports, water and sewage systems, sewerage systems, power plants, gas supply systems and telecommunication systems.

privatization policy. Under the IPC listing framework, an infrastructure project company will qualify for listing if it possesses the right to build and operate an infrastructure project located within or outside Malaysia, with total project cost equivalent to or more than RM500 million (USD153 million), and the concession or license has a remaining period of at least 15 years. These companies are also subjected to specific disclosure requirements[141], including the basis of the concession or license, the nature of its business and construction risk. The infrastructure project company applying for listing is either the company holding the concession or license awarded by the government, or the holding company of a subsidiary which is the concession or license holder. Notwithstanding this, under the IPC listing framework, a shorter concession or license period may be considered if the company meets the profit test[142,143].

Since inception, a number of infrastructure project companies have successfully listed on the stock exchange, using the IPC listing framework, to raise capital needed for construction and initial operations prior to establishing the required profit track record for listing. Investors in infrastructure project companies include institutional investors such as pension funds and financial institutions, as well as both retail and high net worth investors.

One early adopter of the IPC listing framework was Lingkaran Trans Kota Holdings Berhad (Litrak[144]), which was successfully listed on Bursa Malaysia in 1996 through its issuance of ordinary shares, which was over-subscribed by local and global investors. Litrak was regarded as an attractive investment due to the potential of the company to provide consistent dividend yields as it held a government concession which enabled the company to generate a steady stream of revenue. The success of Litrak was apparent as early as three years after its listing when it declared its first dividend payment. From 2009-2013, Litrak's average dividend payout ratio of 84.6%[145] was 67% higher than the FTSE Bursa Malaysia Kuala Lumpur Composite Index[146] average. Further, its market capitalization increased in excess of 30% since listing and its enterprise value[147] has more than doubled in the past decade[148]. By listing using the alternative IPC route, Litrak was able to secure long-term equity financing to undertake the construction, operation and maintenance of several major highways which have now become generators of steady cash flows.

Challenges and solution provided

The IPC listing framework aims to resolve the challenge faced by infrastructure project companies in obtaining LTF for their projects. The advent of the IPC listing framework enables large infrastructure projects to be financed directly through the equities market. More specifically, this framework facilitates long-term fundraising for greenfield infrastructure projects that typically face difficulties in securing substantial funding over a long tenure from traditional sources of financing such as bank loans and normal IPO listing.

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141 The Prospectus Guidelines issued by the Securities Commission on 28 December 2012 (updated 1 April 2013) sets out the complete disclosure requirements.

142 Securities Commission, Equity Guidelines, 8 May 2009 (Updated 18 December 2013).

143 The profit test requires a company to have an uninterrupted profit track record of 3 to 5 years with an aggregate after-tax profit of at least RM20 million and an after-tax profit of at least RM6 million for the most recent financial year.

144 Litrak is a highway concessionaire and an investment holding company with subsidiaries involved in the design, construction, operation and maintenance of major highways.

145 Data sourced from Bloomberg.

146 The FTSE Bursa Malaysia Kuala Lumpur Composite Index comprises the 30 largest companies based on market capitalization on Bursa Malaysia's Main Board.

147 Enterprise value is used to measure a company's value, calculated as market capitalization including debt, minority interest and preferred shares, and excluding cash and cash equivalents.

148 Data sourced from Bloomberg.

In addition, the IPC listing framework encourages infrastructure development as this framework enables direct listing of infrastructure project companies which have yet to establish sufficient profit track record to satisfy the profit test, and have insufficient operating track record to satisfy the market capitalization test[149] requirement under the normal listing route.

Why it is successful

The IPC listing framework serves as an alternate funding avenue for long-term equity financing through the capital market while providing an opportunity for investors to gain exposure to infrastructure projects with a steady stream of cash flow, potentially providing them with consistent dividends over time. Additionally, the IPC listing framework supports the government's strategy to increase private financing in the infrastructure sector and promotes risk-sharing through public-private partnerships.

LTF for infrastructure projects was facilitated through the IPC framework even during the 1997 Asian financial crisis. Although several major infrastructure projects were postponed and investments in infrastructure were significantly curtailed during that period, qualified infrastructure project companies were able to continue raising capital under the IPC listing route. Despite the challenging environment during that year, RM5.7 billion (USD1.47 billion) was raised via new IPC listings.

Potential risks

The main risks faced by infrastructure project companies are the risk of having the concession or license terminated by the government, and the risk of unfavorable amendments being made to the concession or license agreement. Additionally, these companies are subjected to political and macroeconomic risk factors given the nature of infrastructure development. The longevity and viability of an infrastructure project company is also significantly dependent on the length of the concession or license awarded, and its ability to develop and diversify its business operations while the concession or license is in effect.

149 The market capitalization test requires a company to have total market capitalization of at least RM500 million in ordinary shares.

B DEBT CAPITAL MARKET

13. MUNICIPAL BONDS: LAGOS STATE BONDS

Basic concept

This is an example of a state sourcing funds in the capital market through the issuance of state bonds to finance infrastructure development projects. Legal frameworks were established to support this issuance, including enacting a new Bond Law and establishing Irrevocable Standing Payment Orders by the state to guarantee payment to bondholders[150]. In addition, the issue makes use of a Consolidated Debt Service Account (CDSA) and Sinking Fund for the benefit of bondholders.

Key takeaways

- An enabling legal framework is a pre-requisite for infrastructure financing such as laws governing the issuance of bonds, introduction of shelf registration and book building, changes in bank and pension regulations to enable investments in bonds, and inclusion of bonds as eligible for repo and reverse-repo transactions.
- A holistic approach is needed for successful infrastructure financing through state bonds.
- Creation of structures such as CDSA, Sinking Fund, Independent Trustee and Irrevocable Standing Payment Order (ISPO) with mechanisms that increase the certainty of payments to bondholders can enhance investor interest and confidence.
- The securities regulator (or other responsible authority) can monitor to ensure that bond proceeds are utilized in accordance with the purposes stated in the approved offering documents.
- It is important that state/local governments establish their reputations as disciplined users of capital market by meeting all obligations (coupon and principal payments) as and when due.

Key metrics

The Lagos State launched a N275 billion (USD2.32 billion) bond program in 2008 with two issuance series to finance various critical infrastructural projects. The first series amounted to N107.5 billion (USD906.63 million) and the second series totaled N167.5 billion (USD1.07 billion).

Background

Lagos is the most industrialized state in Nigeria and Sub-Saharan Africa[151] with an estimated population of approximately twenty million. It is the business and commercial capital of Nigeria and home to two of the state's largest ports and airport. Having been designed some fifty years ago for four million inhabitants, it was a city with little investment in infrastructure until 2009. A plan was developed in 2007 to build physical and social infrastructure.

[150] The bond issue was approved by the Nigerian SEC.

[151] Sub-Saharan Africa is, geographically, the area of the continent of Africa that lies south of the Sahara Desert. Politically, it consists of all African countries that are fully or partially located south of the Sahara (excluding Sudan).

Following the enactment of the Bond Law, the Lagos State launched a N275 billion (USD2.32 billion) bond program in 2008 with two issuance series. The first N107.5 billion (USD906.63 million) series was composed of two tranches. In 2012, following the expiration of the shelf program for the first series (after a two-year life span), the Lagos State launched the second series shelf program of N167.5 billion (USD1.07 billion). This series was composed of two tranches and represented the balance of the initial program issued.

The total amount raised was used to finance various critical infrastructure projects such as road construction[152], a mass transit program, waste management, mass housing, water projects, rehabilitation of health care centers and drainage upgrading, among others.

The breakdown of the two tranches of both the first and second series is set out in Table 1[153] and Table 2 respectively.

Table 1

Breakdown of the Tranches of the First Series

S/N	STATE GOVERNMENTS	AMOUNT (N'M)	YEAR OF ISSUE	YEAR OF MATURITY	COUPON RATE RATING ISSUANCE METHOD	PROJECT
1	Lagos State Government Bond – Series 1 under the N107.5 billion (USD906.63 million) Debt Issuance Program	50,000 (USD421.69 million)	2008	2013	13.0% A+ rated By way of book building to Qualified Investors (QI)	• Re-financing of outstanding loans • Financing of on-going projects
2	Lagos State Government Bond – Series 2 under the N107.5 billion (USD906.63 million) Debt Issuance Program	57,500 (USD484.94 million)	2010	2017	10.0% A+ rated By way of book building to QIs	• Re-financing of outstanding loans • Financing of on-going projects

Table 2

Breakdown of the Tranches of the Second Series

S/N	STATE GOVERNMENTS	AMOUNT (N'M)	YEAR OF ISSUE	YEAR OF MATURITY	COUPON RATE	PROJECT
1	Lagos State Government Bond – Series 1 under the N167.5 billion (USD1.07 billion) Debt Issuance Program	80,000 (USD514.70 million)	2012	2019	14.5%[154] Aa-[155] rated By way of book building to QIs	• Road Construction • Building of Bridges • Health Facilities
2	Lagos State Government Bond – Series 2 under the N167.5 billion (USD1.07 billion) Debt Issuance Program	87,500 (USD555.30 million)	2013	2020	13.5% A+ rated By way of book building to QIs	• Reconstruction of Roads • Blue Line Rail Projects • Acquisition of Asset and Liabilities of Lagos Concession Company i.e. Lekki-Epe Expressway (LCC)/N15 billion[156]

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152 Such as the acquisition of the Lekki-Epe Expressway concession right by Lagos.

153 The bonds issued qualify as: (i) instruments in which banks may invest under the Central Bank of Nigeria Act of 2007; (ii) instruments in which pension funds may invest under the Pension Reform Act of 2004; and (iii) as liquid assets for banks for the purposes of computing liquidity ratios. Furthermore, government bonds which meet the criteria for liquid assets status are eligible for repurchase or "repo" transactions.

154 This coupon rate is higher than the coupon rate in the previous tranches as a result of sudden increase in the benchmark rate (MPR) by the Central Bank of Nigeria from 8% to 12% in 2012.

155 This rating is higher than the other previous tranches mainly because of the enhanced securities structure. i.e. the accumulated funds from IGR into the CDSA and eventually to the Sinking Fund.

156 A portion of Series 2 issue (USD1.078 billion) was the acquisition of concession rights of the Lekki Expansion/Upgrade of the 49.36 km Lekki-

Challenges and solution provided

One of the major problems faced by Nigerian states was a high degree of dependence on federal oil revenues, with the exception of the Lagos State. The revenue for 36 Nigerian states comes from their share of Nigeria's federal oil revenue which is subject to commodity price volatility. To further decrease its dependence on federal oil revenues, Lagos has been working on increasing its internally generated revenues (IGR), through bringing more people into the tax net. In 2009, IGR was approximately 50% and projected to grow rapidly. Today, it is in excess of 78%. Considering limited public resources, Lagos State developed a public financing model in 2007 to create a financing structure against future tax receipts.

Another challenge was the lack of a legal framework to facilitate the development of infrastructure projects. In line with the Investment and Securities Act (ISA 2007), which is the governing law that regulates the Nigerian Capital Market, the Lagos State enacted a Bond Law. The Bond Law[157] provides the legal framework which enables the state to source funds from the capital market to finance its developmental projects. The Bond Law established a CDSA, which is a dedicated account opened by the Lagos State Government into which 15% of the state's IGR is to be paid monthly for the purpose of servicing the state's debt obligation. In addition, the state set up a Sinking Fund[158] which is funded from the monies in the CDSA for the purpose of servicing the state's obligation under each series of bonds issued[159].

Apart from the deductions from the state IGR, Lagos State, as part of the Nigerian federation is entitled to a share of revenue from the monies in the Federation Account. To this end, the Lagos State pledged part of its share of the monies from the Federation Account to be paid into the Sinking Fund through an ISPO. The ISPO is an irrevocable commitment given by the issuer, Lagos, and authorizing the Accountant General of the Federation to deduct at source a portion of Lagos State's statutory revenue to the credit of the Sinking Fund managed by the independent trustee for the servicing of the state's bond obligation.

The Lagos State's growth as an issuer was also facilitated by the introduction of appropriate rules in the Nigerian Capital Markets such as shelf registrations and book building[160].

Epe Expressway. The project is a pioneering 30-year Public Private Partnership (PPP) Project between the Lagos State Government and Lekki Concession Company Limited (LCC). The Project amount was USD450 million, with USD420 million secured. The project is a user-based toll road with the private party taking on full market risk. It is the first ever PPP Toll Road concession in Nigeria and West Africa. Equity holders in the LCC comprise both local and foreign investors. The acquisition of existing concession rights and toll revenue benefits held by the LCC will effectively accelerate the transfer of ownership of the road to the State Government and enable the State Government to exercise some flexibility as to the toll rate and the number of tolling points among other important decisions. It also provides the state with wider policy options with regards to the infrastructure by placing the LCC entirely under the control of the State Government. The LCC shall therefore continue to operate as a fully commercial entity for the benefit of taxpayers and the larger society. The state is working now on securitization of toll road receipts.

157 According to ISA 2007 Section 224, any state wanting to raise funds from the capital market should enact a Bond Law.

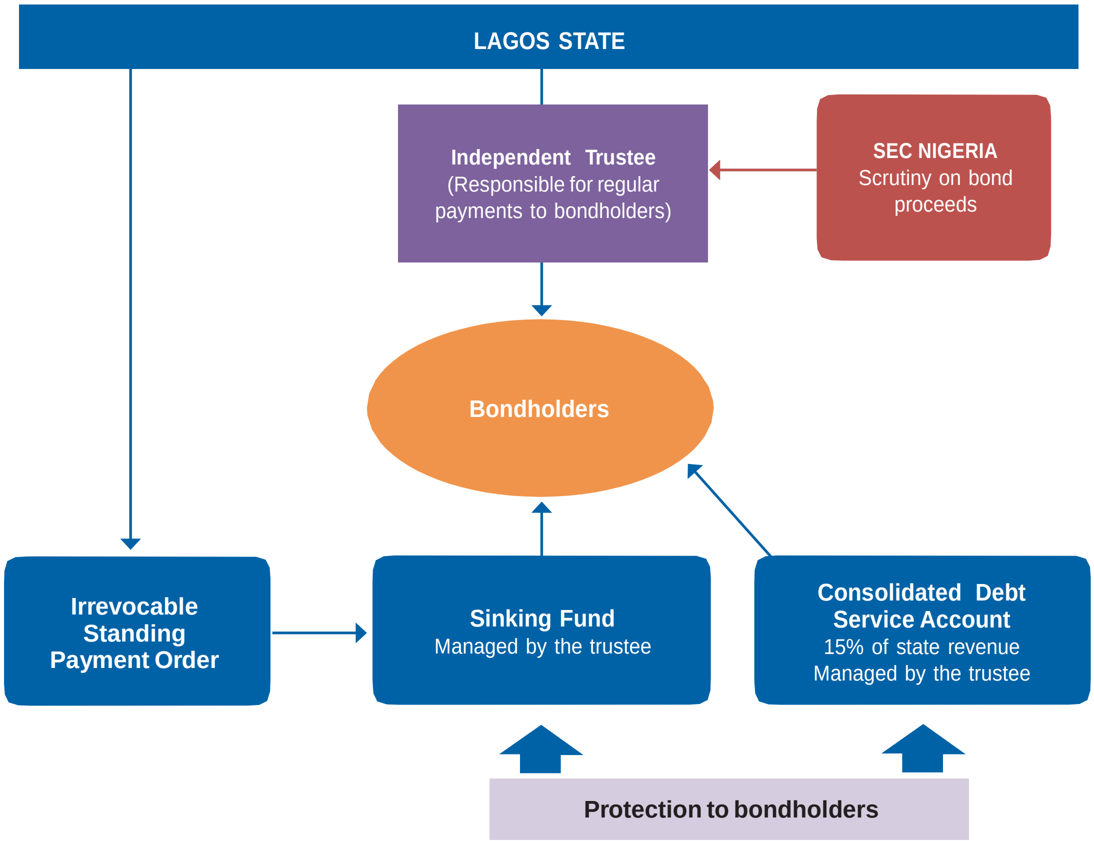
158 The Sinking Fund is a fund established by the State in accordance with the provision of the Bond Law and the ISA where the State makes monthly payments, funded from the CDSA and ISPO which is managed by trustees.

159 The entire 15% of Lagos State IGR is paid into the CDSA which is meant to cater for all the state debt obligations. Out of this amount, a portion is now transferred into a separate Sinking Fund to cater for the repayment of a specific series or tranche. For instance for the Series 2 issue, part of which was used to acquire the LCC, the sum of N1.1Billion is being transferred monthly from the CDSA to the Sinking Fund.

160 The Nigerian SEC introduced shelf registration in 2009 under which the shelf is valid for 2 years and is currently working on a proposal to increase the life span of shelf registration.

Diagram 15

Structure of Lagos State Bonds



Successful issuance of state bonds requires the existence of a strong buy side of institutional investors. Reforms to develop the Nigerian pension system have helped deepen the buy side. Since the reforms began in 2006, the domestic pension industry now has USD9 billion of assets under management.

In addition, the eligibility of Nigerian bonds as investable financial instruments for banks and pension funds under banking and pension regulations and as liquid assets for the purposes of liquidity ratio calculations for banks - thereby making them eligible for repurchase or "repo" transactions - have helped successful fundraising through capital markets.

A simplified illustration of the Lagos State bonds structure is set out in Diagram 15.

Why it is successful

The concept of using the ISPO where the Lagos State pledged a portion of its Statutory Federation Allocation to be deducted at source for payment of bond obligation is unique to the Nigerian market. This is in addition to the 15% provided in the CDSA which is sourced from the state IGR. Both CDSA and ISPO are meant to protect bondholders and reduce the likelihood of defaults for the benefit of investors.

Furthermore, SEC Nigeria has put in place a monitoring mechanism to ensure that bond proceeds are utilized in accordance with the purposes stated in the approved offering documents. This is done through off-site and on-site inspections. The off-site inspection entails reviewing periodic reports of utilization of proceeds while the on-site inspection entails physical inspection of the project sites to verify utilization.

The CDSA and the Sinking Fund are managed independently by a trustee[161] appointed by Lagos State and governed through a trust deed[162] specifying the responsibilities of each party (Lagos State and the trustee). The trustee serves the interest of bondholders by ensuring that the deductions under the ISPO and regular payments of the 15% IGR of Lagos State (when due to the CDSA and the sinking fund) are appropriately remitted.

The Lagos infrastructure project has significantly expanded Lagos State's GDP. The impact has been transformational and the state financing model in Nigeria is now intended to be followed by others[163]. Much of the significant progress the state has made over the last decade can be attributed to good governance. Over the last decade, the State Government instituted initiatives to enhance revenue collections and moderate expenditure. The government has also embarked on significant infrastructure upgrades. This resulted in Lagos State taking the lead over all other states in Nigeria in terms of IGR, where the state's IGR accounted for 65% of revenue. The state's IGR is stable, with the majority of it stemming from taxes.

The Lekki-Epe Expressway, which is part of the Lagos infrastructure project initiative successfully delivered the first PPP user-based toll road in West Africa. It attracted multi-sourced, multi-currency project finance interest from top global market participants and became the longest tenured project finance transaction in Nigeria. A 15-year foreign exchange swap was used to hedge currency risk. The project has also created 2000 jobs through direct employment.

Lagos State continues to address infrastructural deficits through a combination of direct borrowings, debt issuances and PPP initiatives. The state has established a reputation as a disciplined user of the capital market by meeting all obligations (coupon and principal payments) as and when due. Lagos State has consistently been assigned a rating of A+ by Agusto & Co. (a Nigerian-headquartered regional credit rating agency) and Global Credit Ratings (a South Africa-headquartered regional credit rating agency).

Potential risks

- **Delays in construction timelines, may result in the projects not being able to generate adequate cash flows:** The Lekki-Epe toll road has experienced challenges such as delays in the construction timeline and generating less cash flow than expected. This

161 The trustees are capital market operators registered by the SEC Nigeria.
162 The trust deed is part of the documents received and cleared by SEC Nigeria for the transaction.
163 12 other Nigerian states including Osun, Gombe, Kaduna, and Delta, have indicated interest of using the same structure of capital financing option.

resulted in the Lagos State Government entering into an Amicable Settlement Option[164] with the LCC shareholders. The credit/default risk has been mitigated by the acquisition of the concession rights by the Lagos State using part of the funds raised from the domestic capital market.

- **Problems arising from lack of exit options and an illiquid secondary market:** The Nigerian infrastructure market is in the early stages of development. The lack of a secondary market prevents an efficient change of asset ownership from one investor group to another during the term of the project and is a critical factor weighing against investment in the project. The willingness of Lagos State to acquire the LCC shares from early investors enabled them to liquidate their investment and provided an exit route that would otherwise not have been available. It also acted as a credible intermediary for channeling funds from the capital market to enable investors to exit their investment.

[164] The Amicable Settlement Option is a 100% shareholder buy-out predicated on the consideration framework of equity capital recovery and fair return on capital amounting to N15 billion (USD99.8 million).

14. ISLAMIC FINANCE: SUKUK

Basic concept

Sukuk are generally referred to as Islamic bonds but are essentially an asset-based investment whereby the sukuk investor owns an undivided interest in an underlying asset proportionate to the investment and earns a profit return on that asset. As a result, the element of interest which is not permissible under Shariah is eliminated and any returns on investment are in the form of profits linked to cash flows of an underlying asset.

The issuance of a Sukuk Wakalah and Ijarah[165], secured by a completion support and a 6-month rolling guarantee from the ultimate parent company, enabled TNB West Energy to raise the financing necessary to construct a power plant.

Key takeaways

- Sukuk can be tailored to fulfil numerous LTF needs in a Shariah permissible manner, thereby providing a viable alternative to bonds, including for long-term infrastructure project financing.
- Sukuk structures can be combined with support and guarantee features to alleviate risks making it a dynamic financial instrument to aid fundraising of significant amounts and for extended periods.
- Sukuk structures can contribute to the successful raising of funds to finance greenfield and brownfield phases of projects for extended periods of time.

Key metrics

- TNB Western Energy Berhad (TNB WE) issued a Sukuk Wakalah and Ijarah worth RM3.655 billion (USD1.09 billion[166]) to finance the construction of a power plant.
- The sukuk was distributed to a broad range of investors comprising insurance companies (42%), fund management companies (25%), financial institutions (17%), pension funds (8%) and others (8%).

Background

In August 2013, Tenaga Nasional Berhad (TNB[167]) won a competitive bid to construct a 1,000 megawatt Ultra-Supercritical Coal-Fired Power Plant. TNB later appointed its wholly-owned subsidiary, TNB Manjung Five Sdn Bhd (TNB Manjung Five), as the independent power producer. This requires TNB Manjung Five to design, build, own, operate and maintain the power plant. Thereafter, TNB WE, a wholly-owned subsidiary and funding vehicle of TNB Manjung Five, issued a Sukuk Wakalah and Ijarah worth RM3.655 billion (USD1.09 billion) to finance construction of the power plant. This sukuk was backed by a completion support and a 6-month rolling guarantee from TNB who also acted as the sponsor and guarantor of the sukuk.

The key features of the sukuk are highlighted in Table 3.

Table 3

Key Features of the Sukuk

Issuer	TNB WE
Guarantor	TNB
Issue size	RM3.655 billion (USD1.09 billion)
Issue date	30 January 2014
Maturity	10.5 years – 20 years
Initial rating	AAA
Credit rating agency	Malaysian Rating Corporation Berhad[168]
Coupon rate	5.06% – 5.80%

A simplified illustration of the TNB WE sukuk structure is set out in Diagram 16.

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[165] A Sukuk Wakalah and Ijarah refers to a sukuk that combines the Shariah principles of Wakalah (agency) and Ijarah (lease). Wakalah refers to a contract in which a principal (muwakkil) authorizes another party as his agent (wakil) to perform a particular task in matters that may be delegated either voluntarily or with imposition of a fee. Ijarah is a leasing structure coupled with a right available to the lessee to purchase the asset at the end of the lease period.

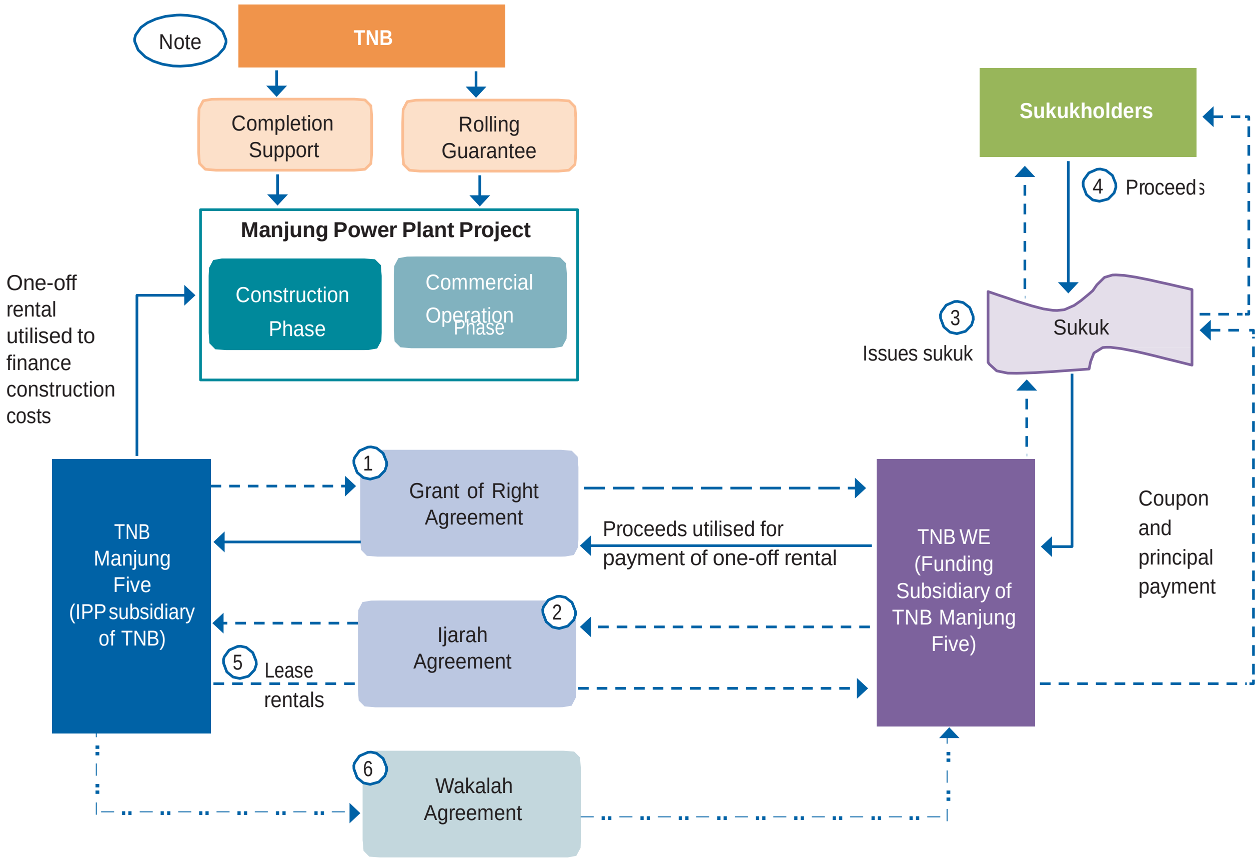
[166] Based on the exchange rate of USD1:RM3.35 as at 30 January 2014.

[167] Tenaga Nasional Berhad is the national electricity company, rated AAA by Malaysian Rating Corporation Berhad.

[168] Malaysian Rating Corporation Berhad is a Malaysian incorporated credit rating agency.

Diagram 16

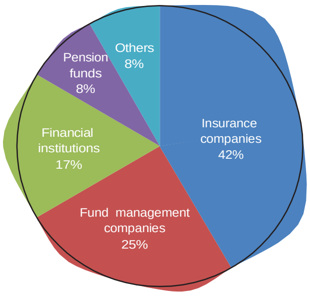
Structure of TNB WE Sukuk



Step 1	TNB Manjung Five enters into a Grant of Right Agreement to grant the right over the use of its power plant project land to TNB WE.
Step 2	TNB WE enters into an Ijarah Agreement (Lease Agreement) to lease the power plant project land to TNB Manjung Five.
Step 3	TNB WE issues sukuk to sukuk holders.
Step 4	Proceeds from the sukuk will be utilized by TNB WE to pay TNB Manjung Five a one-off rental for the grant of right which will be channeled to finance the construction of the power plant.
Step 5	TNB Manjung Five pays periodic lease rentals to TNB WE which is subsequently channeled to the sukuk holders as coupon and principal payments.
Step 6	TNB Manjung Five enters into a Wakalah Agreement (Agency Agreement) to appoint TNB WE as its agent to provide certain services for a period corresponding to the period of construction and delivery of the power plant.
Note	TNB grants a completion support for the construction phase and a 6-month rolling guarantee during the commercial operation phase of the project.

The sukuk were distributed to a broad range of investors as in Chart 5.

Chart 5
Investors of TNB WE RM3.655 billion (USD1.09 billion) Sukuk



Challenges and solution provided

In Malaysia, there are several large institutional investors with specific investment mandates to invest in Shariah-compliant instruments that were faced with a shortage of eligible instruments in the capital market. Sukuk were introduced as a capital market solution to provide Shariah-compliant instruments to meet these investors' needs while offering a new class of investable instruments for other investors to widen and diversify their investment portfolios.

Similar to conventional bonds, sukuk can be tailored to meet various LTF needs in a Shariah permissible manner, including for purposes of infrastructure project financing. In addition, due to the high demand for sukuk in Malaysia, issuers usually enjoy slightly lower yields as compared to conventional corporate bond issuers. Various tax incentives accorded to sukuk transactions also lower the cost of funding for issuers. Sukuk were therefore used as a fundraising tool by TNB to finance the construction of a power plant.

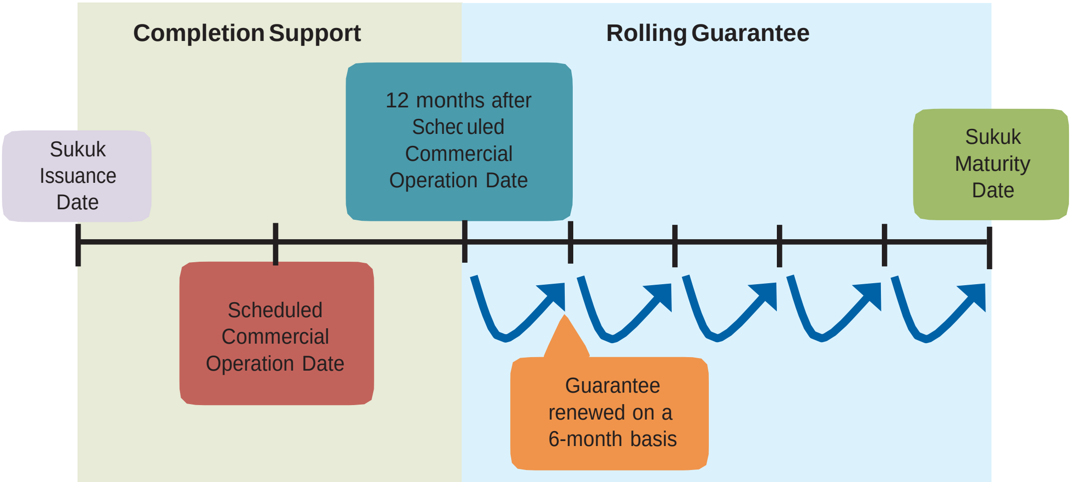
As a greenfield infrastructure project, a sukuk issuance used to finance this project would have typically been assigned an AA credit rating. To boost the credit rating for the sukuk and secure more cost-effective funding, the TNB WE sukuk were embedded with a completion support which provided an unconditional and irrevocable guarantee by TNB to inject a specified amount of equity contribution into the project. The completion support also covers cost overruns up to 10% of the project cost during the construction period and 12 months thereafter, effectively mitigating completion risk during the greenfield phase.

For the subsequent phase when construction of the power plant has been completed, the sukuk include a 6-month rolling guarantee from TNB to provide an unconditional and irrevocable pledge to cover any shortfalls in principal and profit payments. This guarantee is a financial guarantee that lasts for a 6-month period during which any missed principal and profit payments will be repaid by TNB. When the guarantee expires at the end of the sixth month, it is automatically renewed for another six months. This renewal of the guarantee continuously occurs every six months until maturity of the sukuk. This provides assurance against missed repayments throughout the brownfield phase while minimizing the cost of providing a guarantee from the guarantor's perspective.

An illustration of the completion support and 6-month rolling guarantee is set out in Diagram 17.

Diagram 17

Completion Support and 6-month Rolling Guarantee



Why it is successful

The TNB WE Sukuk Wakalah and Ijarah is an example of how sukuk can be structured to incorporate support and guarantee features to mitigate key risks in both the greenfield and brownfield phases of an infrastructure project to successfully raise RM3.655 billion (USD1.09 billion).

The completion support, which encompasses a cost overrun guarantee amounting to 10% of total project cost, provides additional comfort to sukukholders as it exceeds the 3% to 5% construction contingency fund typically observed in domestic power projects[169]. Post-construction, the 6-month rolling guarantee from the AAA-rated TNB provides assurance of periodic repayments to investors during the brownfield phase, and creates an incentive for long-term investment in the sukuk. This ensures the availability of long-term funds for the issuer at a lower cost compared to issuing a conventional bond. Moreover, the completion support and rolling guarantee increases the credit profile of the sukuk to AAA as opposed to an AA rating that is usually assigned to a typical greenfield power plant sukuk.

The availability of sukuk also provides a new type of Shariah-compliant instrument that fulfills the investment needs of institutional investors with specific Shariah investment mandates.

Potential risk

Although the rolling guarantee is automatically renewed on a periodic basis, it only secures coupon and principal payments outstanding within a 6-month period at any one time (prevailing period). If investors were to call for an event of default at any time prior to maturity, they risk losing the rolling guarantee. In such an event, the investors would only be guaranteed the outstanding coupon and any principal payment due within the prevailing period, while the remaining outstanding amount would be subject to negotiations between the investors and issuer, which is generally a time-consuming process that may not bear positive results. Therefore, the rolling guarantee feature does not immediately eliminate repayment risk for investors as they will need to stay invested until maturity and may be faced with duration risk in the interim.

169 Malaysian Rating Corporation Berhad, TNB Western Energy Berhad: Credit Analysis Report, 7 January 2014.

15. PROJECT BOND: PBI

Basic concept

The Project Bond Initiative (PBI) is a European Union (EU) program to stimulate capital market financing of infrastructure projects. By providing credit enhancement to senior secured project bonds to achieve a credit rating that is attractive to institutional investors, PBI aims to facilitate the delivery of private capital for infrastructure projects and minimize funding costs for infrastructure companies. The credit enhancement may take the form of either a funded subordinated debt or an unfunded partial guarantee of senior debt.

Key takeaways

- Project bonds, which provide stable and predictable cash flows through the use of credit enhancements to attract institutional investors, can act as a catalyst to establish capital markets as a significant source of funding for infrastructure projects. Project bonds help bring together infrastructure projects with calculable risks and institutional investors expecting moderate returns and seeking suitable financial products to fulfil their asset-liability mismatches.
- Although credit enhancements can improve the credit quality of senior debt, this mechanism may not be sufficient to enhance the overall credit quality of projects with weak fundamentals or that are constrained by sovereign ceiling ratings.
- Macro-prudential regulations[170] may need to be refined to attract institutional investments in financial instruments that fund infrastructure projects.

Key metrics

- EIB expects that PBI will mobilize up to EUR4.6 billion (USD6.3 billion[171]) of senior debt financing from institutional investors since this initiative offers credit enhancement of up to 20% or EUR200 million (USD273 million) of senior debt for each eligible project.

Background

Currently, there is strong political support to have financing in place for new infrastructure projects as a key pillar in the EU's growth agenda. PBI aims to revive and expand capital markets to finance large European infrastructure projects in the fields of transport, energy and information technology, and establish debt capital markets as an additional source of financing for infrastructure projects. The objective is to attract institutional investors to capital market-based financing of projects with stable and predictable cash flows by enhancing the credit profile of project bonds issued by private companies. PBI is intended to complement loan financing for infrastructure projects and not to replace other sources of financing such as grants.

Eligible projects should support the development of EU infrastructure, mainly in the areas of transport, energy and distribution infrastructure. Only commercially feasible projects that are characterized by a predictable income structure can be considered under PBI. In addition, projects should generate low technological risk, create stable cash flows, constitute natural monopolies, be essential to social needs and include direct or indirect government participation. Eligible assets should be separated from other assets of the project company and the financing raised cannot be spent on developing the project company.

PBI provides credit enhancement to senior secured project bonds to achieve a credit rating that is attractive to institutional investors. Ideally, the credit enhancement should be structured to achieve a project bond rating of A or higher to allow the debt to meet credit quality requirements of a large number of investors[172]. The credit enhancement may be in the form of either a funded subordinated debt or an unfunded partial guarantee of senior debt service to mitigate the credit risk over the full term of the senior debt.

170 Basel, Insolvency and Pension regulations.
171 Based on exchange rate of EUR 1 : USD 1.366, as of June 30, 2014.
172 Although EIB has stated that this is not mandatory as long as it can be proven that there are institutional investors ready to buy the bonds.

The roles of the European Commission and EIB in PBI are to define the project eligibility framework while EIB is responsible for managing and implementing PBI within the applicable eligibility framework[173]. EIB shares the risk exposure of providing credit enhancement with the EU and is tasked with ongoing monitoring of financed projects. EIB aims to have standardized products across EU to enable bond financing for infrastructure projects.

Initially, one or more firms set up a project company whose purpose is to plan, construct, operate and finance an infrastructure project. EIB selects and appraises these projects to identify those eligible under PBI. Then, under the Project Bonds Credit Enhancement (PBCE) mechanism, EIB structures and prices a junior-ranking credit enhancement instrument for the project company. The project company will obtain the remaining portion of financing from bonds issued to institutional investors and rated by credit rating agencies.

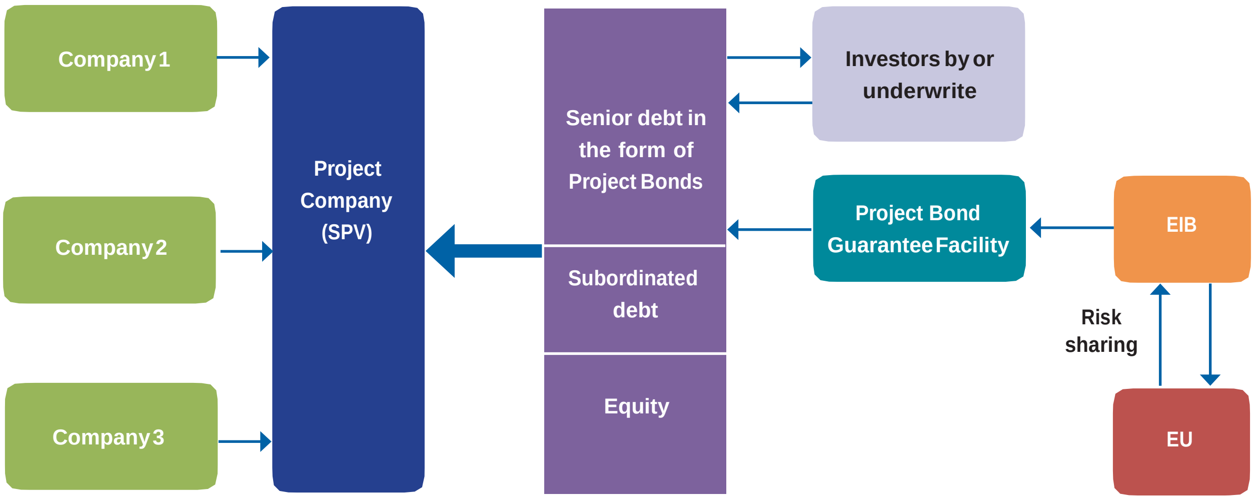
Improving the credit profile of project bonds entails dividing the debt of the project company into senior and subordinated tranches. The senior tranche is purchased by private institutional investors, such as pension funds and insurance companies, seeking investments that provide stable income with an attractive risk-return profile. The subordinated tranche is provided by EIB through the PBCE mechanism. EIB can either provide a loan from the outset (funded PBCE), in which case less debt capital has to be raised from private investors, or provide a contingent credit line for a fully financed project (unfunded PBCE). The unfunded PBCE can be drawn upon if there is an overrun in construction costs or if income from the project is temporarily insufficient to service both the interest and principal of the junior debt held by private investors.

Project bonds help a project company minimize funding costs through a structure which enhances the credit rating of senior bonds. The limit for provision of financing to a single project by EIB is EUR200 million or 20% of the nominal value of the issued bond.

A simplified illustration of the Europe 2020 PBI structure is set out in Diagram 18.

Diagram 18

Structure of Europe 2020 Project Bond Initiative



173 As the most important European infrastructure investment institution, EIB has provided more than EUR140 billion for the financing of ten transport and energy projects within EU until today. A significant portion of these projects would not have been possible without EIB's participation.

During the test phase of PBI from 2012 to 2014, EU will provide funds amounting to EUR230 million[174] (USD314 million). In the pilot phase which started on 7 November 2012, projects must be approved by EIB before 31 December 2014 and reach financial close by 31 December 2016. Since PBI will offer credit enhancement of up to 20% of senior debt for each eligible project, EIB expects this to mobilize up to EUR4.6 billion (USD6.3 billion) of senior debt financing from institutional investors. Transportation, particularly motorway projects, dominates the pilot phase since they generate sufficiently strong cash flows to cover investment costs[175]. The implementation phase will be from 2014 to 2020, and overlaps with the implementation of the Connecting Europe Facility[176]. Beginning 2014, PBI will be fully integrated into EU's multi-annual financial framework (2014-2020).

Challenges and solution provided

In the aftermath of the global financial crisis, it is difficult to obtain funding from banks due to more stringent capital adequacy requirements. The increased level of public sector debt has also substantially restricted the volume of tax revenues available for infrastructure funding. This has resulted in traditional funding instruments having a lesser role in providing infrastructure financing. Likewise, issuing infrastructure bonds to institutional investors have become much less feasible due to the impact of the global financial crisis[177]. PBI helps bring together infrastructure projects with calculable risks and institutional investors expecting moderate returns and seeking suitable financial products to fulfill their asset-liability mismatches.

Support mechanisms are increasingly important as the infrastructure funding gap widens both at the EU and global levels. The involvement of EIB and EU is necessary in this context.

The objective of PBI in the medium-term is to enable the successful establishment of a platform or a new asset class with participation from private investors, which would spur the European infrastructure market. As in the case of corporate bonds, there is likely an appetite for BBB rated project bonds.

Why it is successful

The uncertainties associated with infrastructure projects, particularly greenfield projects, make it difficult to achieve a high credit rating. The need to attract rating constrained investors for project bonds is a key driver for EIB's involvement. By addressing this gap, PBI enables faster implementation of critical infrastructure projects.

EIB also contributes to infrastructure bond financing by sharing its expertise, and promoting the use of standard form documentation, as well as by

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174 EUR200 million for Trans-European Transport Networks (i.e. highways, railways, etc), EUR10 million for Trans-European Energy Networks and EUR20 million for high-speed broadband projects.

175 The EIB Board of Directors approved the following projects for the PBI test phase: the A11 motorway PPP project between Bruges and Knokke in Belgium, the A7 motorway project between Bordesholm and Hamburg in Germany, a motorway project in Slovakia, Offshore Transmission Owner (OFTO) projects that provide offshore electricity transmission links in the UK and Germany and a gas storage facility in Italy.

176 The multi-phase Inter-European transporting program.

177 Pre-crisis, greenfield infrastructure financing came from bonds guaranteed by monoline insurers, mainly due to the complicated and risky nature of greenfield projects. Therefore, issuing investment grade project bonds that are highly-rated was necessary to be attractive to institutional investors. The main technique used was to provide guarantees (wraps) for bond issues by SPV project companies that enhanced the credit rating of the bonds with AAA rating.

providing guidance on the bidding process and project evaluation, among others[178].

The credit enhancement provided by EIB benefits senior debt holders as it reduces the probability of senior debt default. PBCE alleviates risk during both the construction and operation phases. The unfunded PBCE mechanism improves the construction phase risk profile of a project by providing additional subordinated liquidity to fund cost overruns or replace a defaulted contractor. The PBCE mechanism may enable the project to withstand more severe stresses while continuing to meet the senior debt obligations.

Although it is still at an initial stage, PBI is expected to contribute extensively to infrastructure expansion, economic growth and productivity, as well as competitiveness of the region. According to Moody's, the scope of PBI may be extended to projects in other sectors[179]. The initiative has the potential to provide significant growth stimulus given the interest of the infrastructure sector and backing by EU. It is expected that over time, an increased appetite for project bonds will develop to cover at least the entire investment grade category[180].

Potential risks

Credit Rating Aspect

According to Moody's, Fitch and S&P, the PBCE mechanism either in the form of a funded subordination or an unfunded letter of credit can improve a project's credit rating[181].

- Ø Over the last few years many European countries in central, east and south Europe have experienced sovereign rating downgrades. This situation has negatively affected the ratings of project bonds issued for projects in those countries.
- Ø Despite EIB's involvement, sovereign ceiling considerations may prevent project bonds from achieving target ratings. In addition, although credit enhancement may enhance the credit quality of senior debt, it may not be sufficient to enhance the overall credit quality of a project with weak fundamentals. Therefore, a robust project selection process is necessary.
- Ø The credit rating of each individual project is dependent on a variety of factors. These include specific project risks such as competition, security package, counterparty risk, technical risks, availability of labor and materials and event risks. Furthermore, the project may carry country risks (as highlighted above) and political risk. Each of these risks needs to be assessed based on the specific features of each project and jurisdiction.

- Some east and south European countries have large infrastructure financing needs. However, given that their sovereign ratings are generally below A, projects emanating from these countries may face challenges securing an A rating. This may mean that PBI-eligible projects will come from European countries with higher sovereign ratings and developed infrastructure

178 EIB has published a Guideline to Project Bonds Credit Enhancement and the Project Bond Initiative, to provide stakeholders (Procuring Authorities, bidders and investors) with a general outline on how PBI and PBCE will work.
http://www.eib.org/attachments/documents/project_bonds_guide_en.pdf
http://eib.europa.eu/attachments/thematic/epec_financing_ppps_with_project_bonds_en.pdf
179 https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_133841
180 AAA and AA (high credit quality) and A and BBB (medium credit quality) are considered investment grade.
181 Project bonds usually need to have an investment rating of at least A to be attractive to investors. All three international credit rating agencies, Moody's, Fitch and S&P, have issued positive opinions on enhancements methods of project bonds.

facilities. As a result, the infrastructure gap between the higher and lower sovereign-rated EU countries may increase.

- It may be challenging to attract project companies to shift from bank financing to bond financing, particularly in northern Europe where bank funding dominates infrastructure financing.
- It may be necessary to review the regulatory treatment of financing instruments for infrastructure projects under Basel III and Solvency II[182] as the current requirements deter banks from investing in long-tenure infrastructure debt, as they are require to set aside more capital.
- Fixed income investors routinely buy, hold and sell BBB rated non-financial corporate bonds in the European market but are reluctant to purchase project bonds which are rated lower than A. While the intrinsic credit quality of a rating for a project bond and a corporate bond is similar, investors' need for a higher rating for project bonds is largely driven by non-credit considerations. Investors seeking yield may not perceive credit spreads for A rated project bonds to be sufficiently attractive. Although infrastructure project financing is better suited for "real money" investors such as life insurers and pension funds, there may be few buy-and-hold investors that are willing to invest in bonds with maturities in excess of 10 years.
- A deep and liquid A rated project bond market may not achieve sizeable volumes especially for greenfield projects.
- Procuring authorities throughout EU may not approach project bonds in a consistent manner, which may result in a non-level playing field.

[182] For example, the Solvency II insurance regulation will impose a capital charge of 15 years BBB rated bonds, which is almost twice the level required for investments in A rated bonds.

16. SECTOR SPECIFIC BONDS: GREEN BONDS

Basic concept

Green bonds are fixed-income securities that raise capital for a project or projects with specific environmental benefits. These bonds are issued by companies as a form of positive marketing to expand their investor base to include investors who are motivated to invest in a climate-friendly initiative without being exposed to risks associated with individual projects.

Key takeaways

- The market for green bonds has previously been dominated by issuances from supranational organizations such as the World Bank. However, in recent years the corporate sector has begun issuing green bonds in considerable sizes.
- Some investors may have motivations other than pure financial returns. Asset classes designed to appeal to these motivations may be attractive to such investors.
- Most pension fund assets are exposed to climate risks, including heavier regulation of dirty industries, and the buying of green bonds supports investments that may help offset such risks.
- A big part of the allure of green bonds is that they give investors the opportunity to invest in a climate-friendly initiative without taking the exposure to risks associated with individual projects.
- For corporates, the issuance of green bonds can serve as a positive marketing tool and help diversify their investor base.

Key metrics

- According to the International Energy Agency (IEA), halving global emissions by 2050 using existing or emerging technologies would require an investment of USD46 trillion. HSBC estimates that USD10 trillion is required by 2020, of which USD6 trillion could be expected to come from the debt market, which includes both bank loans and bonds.
- Over USD21 billion worth of green bonds have been issued since the first issuance by EIB in 2007.
- Green bonds amounting to USD10 billion were issued in 2013 alone with recent forecasts estimating an additional USD15 billion worth of issuances in 2014.
- The Climate Bond Initiative, a not-for-profit organization based in London, estimates that the overall green bond market will reach USD40 billion in 2014 and USD100 billion in 2015.

Background

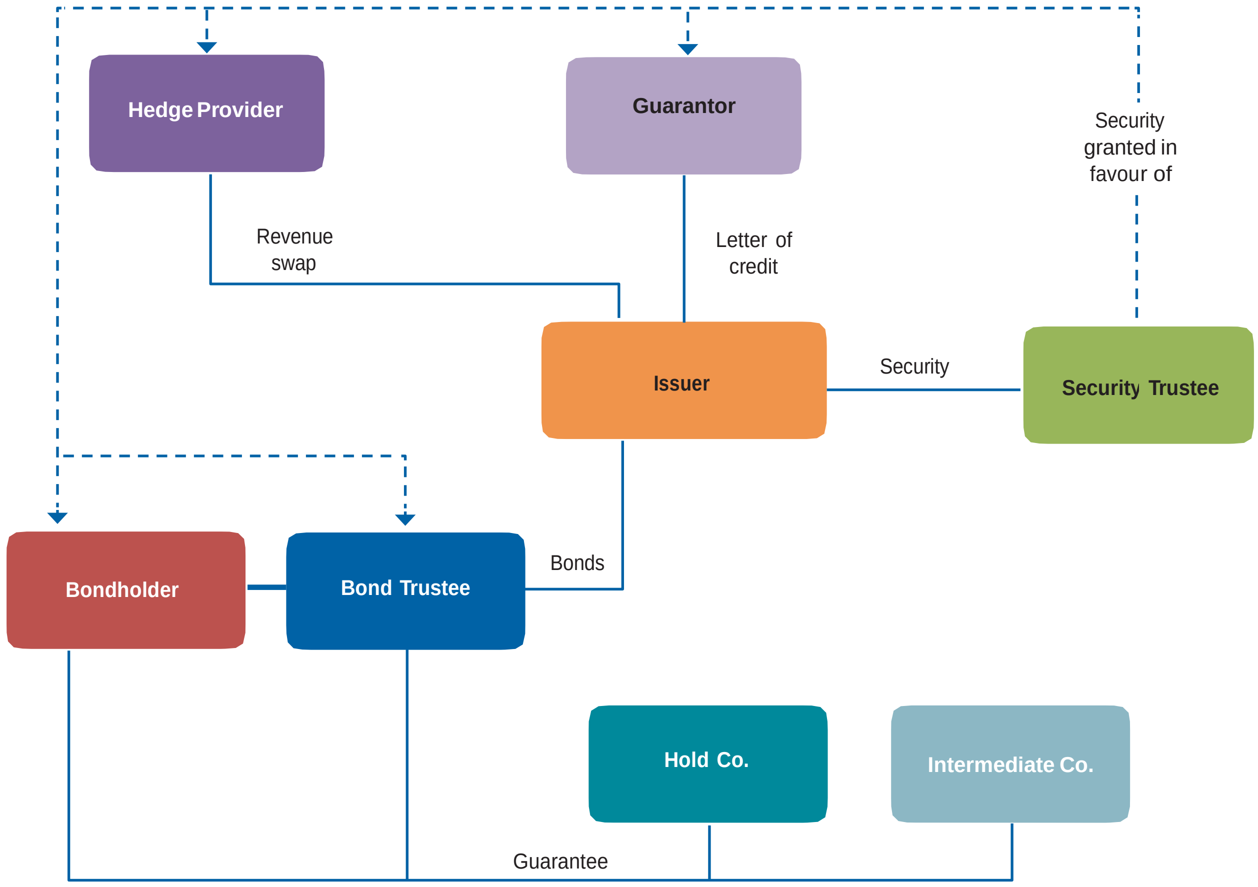
The majority of green bonds issued to date have been “climate bonds”, raising money for investments in climate change mitigation or adaptation, including clean energy, energy efficiency, mass transit and water technology. Most green bonds have been either plain vanilla treasury-style retail bonds (with a fixed rate of interest and redeemable in full on maturity), or ABS tied to specific green infrastructure projects, although they can vary based on the following characteristics:

- Issuer: Governments, commercial or development banks, or corporations;
- Coupon rate: Zero coupon, fixed rate, floating rate, index-linked, coupon-linked to environmental performance; and
- Securitization: Backed by the assets they fund, the issuing institution, mortgages, public sector loans, covered bonds or guaranteed by a third party.

The bonds rank pari-passu with the senior unsecured debt of the issuer, hence repayment of the bond is subject only to the issuer’s credit risk. Proceeds from green bonds are typically used in projects to reduce greenhouse gas emissions, adapt to climate change, increase energy efficiency or expand the use of renewable energy.

Diagram 19

Structure of Green Bond Issue[183]



The market has been dominated by supranational organizations such as the World Bank and EIB, issuing plain vanilla bonds. However, new structures have recently come to market and corporates have begun issuing green bonds in considerable sizes.

A simplified illustration of the green bond issuance structure is set out in Diagram 19.

In early 2014, thirteen banks drew up a set of principles governing the different categories of green bonds, which have been signed by 49 institutions[184]. The Green Bond Principles (GBP[185]) launched by JPMorgan Chase is designed to provide guidance to issuers, and encourage transparency and disclosure for investors in the rapidly developing market for green bonds. GBP was developed by JPMorgan Chase in collaboration with Bank of America, Merrill Lynch, Citi as well as Crédit Agricole Corporate and Investment Bank, ultimately garnering the support of thirteen financial institutions. GBP stipulates that in order to qualify as a green bond, the proceeds must be exclusively applied towards new and existing green projects via specified use of proceeds, direct project exposure or securitization.

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183 Source: Chart extracted from the Great Gabbard OFTO plc prospectus (page 21).
184 For further details with regards to the institutions involved in the process: http://www.ceres.org/press/press-releases/green-bond-principles-created-to-help-issuers-and-investors-deploy-capital-for-green-projects
185 GBP principles: http://www.ceres.org/resources/reports/green-bond-principles-2014-voluntary-process-guidelines-for-issuing-green-bonds

Recent activity indicates that the market for green bonds is developing rapidly. Since the first green bond issuance in 2007 by EIB, over USD21 billion worth of green bonds have been issued and USD10 billion issued in 2013 alone. Recent forecasts estimate an additional USD15 billion worth of issuances in 2014[186]. To date, the most common issuers have been supranational organizations such as EIB, the International Bank for Reconstruction and Development and the International Finance Corporation. EIB in particular continues to tap their benchmark green bond and has reached a volume of EUR1.5 billion (USD2 billion[187]) outstanding currently. However, in 2013, the Commonwealth of Massachusetts issued the first municipal green bond and the largest green bond issued to date is by a French electric utility company, Électricité de France (EDF), which issued a EUR1.4 billion (USD1.86 billion[188]) green bond.

Challenges and solution provided

Environmental pressures continue to increase. One of the major barriers to the deployment of technologies that would increase energy efficiency, reduce carbon emissions and provide other environmental benefits is the lack of capital. According to IEA, halving global emissions by 2050 using existing or emerging technologies would require an investment of USD46 trillion. HSBC estimates that USD10 trillion is required by 2020, of which USD6 trillion could be expected to come from the debt market, which includes both bank loans and bonds. Low-carbon infrastructure tends to require high upfront costs but provides predictable revenue streams, making it ideal for bond financing.

In principle, institutional investors constitute a natural pool of investors for many climate change solutions such as clean energy. Green bonds can provide long-term stable returns that match their long-term liabilities. In addition, their portfolios are already heavily invested in bonds with more than 50% invested in OECD countries on average.

Green bond issuances to date demonstrate that investors need not sacrifice yield when investing in assets and projects that support climate change mitigation and adaptation efforts. Further, investors help climate risk mitigation by deploying capital towards low-carbon infrastructure. In addition, low-carbon infrastructure and energy efficiency financing could represent attractive sources of future yield.

Growing investor appreciation of the risks and investment opportunities related to climate change and other environmental issues means that they have a qualified interest in green bonds. Pension funds have indicated that their interest in green bonds is dependent on the risk-return profile of a particular bond and that they require the bonds to be of investment grade.

Part of the allure of green bonds is that they give investors the opportunity to invest in a climate-friendly agenda while limiting their exposure to individual project risks. With this class of new fixed income instruments, interest from asset managers managing green bond funds is expected to increase.

Why it is successful

In 2012, USD3 billion worth of green bonds were sold while in the first six months of 2014, this amounted to USD20 billion. All the green bonds issued were of investment grade and many were two or three times oversubscribed. Half of the total issuances were issued by corporates, which is a switch from 2013, when most green bonds were sold by international agencies such as the World Bank. According to one estimate[189], 55% of pension fund assets are exposed to climate risks, including heavier regulation of dirty industries, and the buying of green bonds supports investments that may help offset such risks.

186 Source: http://www.jpmorganchase.com/corporate-responsibility/green-bonds
187 As of 19 August 2014.
188 As of 19 August 2014.
189 http://www.economist.com/news/finance-and-economics/21606326-market-green-bonds-booming-what-makes-bond-green-green-grow

Green bonds also attract new investors. When Unilever, a consumer-goods company, issued a GPB250 million (USD414 million)[190] green bond in March, 40% of the issuance was purchased by investors outside the UK, which is uncommon for a bond denominated in sterling. In another example, 75% of the African Development Bank's (AfDB) benchmark bonds are usually purchased by central banks and other official bodies. However, when AfDB issued a green bond last October, asset managers, insurers and pension funds purchased over 70% of these bonds.

The increase in issuance of green bonds is primarily because it aids diversification of investor pools for issuers but also due to investors' growing interest in implementing environmental, social and governance goals[191]. The Climate Bond Initiative, a not-for-profit organization based in London, estimates that the overall green bond market will reach USD40 billion this year and USD100 billion in 2015. S&P forecasts that green bond issuances would increasingly move towards mainstream corporations and away from multilateral banks. To a "color blind" investor, green bonds trade at similar prices to other bonds with the same credit quality. But for companies, green bonds can work as a marketing tool and help diversify their investor base, which can ease its future sales of bonds. Green bonds can also be seen as a branding and imaging initiative undertaken by many institutional investors.

Potential risks

The biggest immediate issues impacting the expansion of a green bond market relate to issuance scale, liquidity and transparency associated with green bonds.

- **Prescribed use of proceeds:** One of the key concerns from the investor's perspective is that the issuer must diligently use the proceeds towards green projects. However, the term 'green' has not been clearly defined, which leaves it subject to interpretation. In an effort to mitigate this risk, independent groups have emerged to offer second opinions in addition to the claims made by the issuer, such as the Centre for International Climate and Environmental Research in Oslo (CICERO), which comprises a group of Norwegian academics. The green bond market has grown so fast that CICERO has recently announced a partnership with four other academic institutions including Tsinghua University, China, to increase capacity. However, in situations where there are no bond covenants governing the use of proceeds, the issuer may divert the funds raised towards non-green uses. Additionally, there is no "green rating" standards that are equivalent to those used to gauge a firm's creditworthiness, hence investors are not able to objectively compare an issuer's track record in undertaking green projects.

- **Lack of liquidity in the secondary market:** As green bonds are comparatively less standardized than traditional bonds, transaction costs associated with these bonds are much higher. Many green bonds have been issued via private placements, which may reduce liquidity compared with public issues. In addition, liquidity may be reduced if the green bond does not meet the eligibility requirements of a relevant bond index as this may reduce investor interest in that bond. Some market participants who are specifically interested in green bonds may be more prone to buy and hold them, which may reduce the availability of these bonds in the secondary market. Further, as a result of their intrinsic nature and specific investor profile, green bonds may provide investors with fewer exit options in comparison to regular bonds.

190 Based on exchange rate of GBP1: USD1.66, as of 19 August 2014.
191 Derived from a quote by S&P analysts led by Michael Wilkins.

C SECURITIZATION

17. LOW INCOME HOUSING: INFONAVIT AND FOVISSSTE

Basic concept

Loans originated by INFONAVIT and FOVISSSTE, which are funded through mandatory payroll contributions of 5% of gross wages from private sector and government employees, are an important source of mortgage funding for low and middle-income borrowers in Mexico. The availability of affordable mortgage financing via this mechanism, help provide a solution to the housing infrastructure problem for those who are otherwise unable to access mortgage financing.

Key takeaways

- The structure can play an active role in successful housing projects for low and middle-income families through a system of mandatory payroll contributions that are directed towards mortgage funding.
- It creates stable cash flows from high quality loans that can be further used for successful securitizations.
- Availability of affordable mortgage financing can assist in meeting housing policy objectives. To be successful, the system needs to be accompanied by strong mortgage underwriting standards that lead to low default rates. Reforms in the areas of information technology, human resource investments and corporate governance have helped achieve this goal.

Key metrics

- Both INFONAVIT and FOVISSSTE are the largest mortgage originators in Mexico with a market share of around 70%.
- As of July 2014, INFONAVIT is one of the leading institutions in the bond market with an outstanding issuance of MXN$100.3 billion (USD7.7 billion). Likewise, INFONAVIT is the largest issuer of mortgage-backed securities in the Mexican market. INFONAVIT's securitization program CEDEVIS has issued 43 transactions involving public and private placements, and has a market share of 42%. Senior tranches of all CEDEVIS issuances have continuously been rated AAA.
- To date, FOVISSSTE has placed out 22 successful securitization transactions through its TFOVI Program, two of which have been repaid in full. FOVISSSTE has obtained AAA ratings for its issuances in 2009 through to 2014 and its ratings have been maintained at this level.
- INFONAVIT also has a pension fund for retired workers and is the single largest pension administrator in Mexico with USD55 billion in assets under management, which is approximately one third of the market share in 2014.

Background

INFONAVIT[192], Workers' National Housing Fund Institute, and FOVISSSTE[193], Housing Fund of the

[192] http://portal.infonavit.org.mx/wps/wcm/connect/infonavit/inicio
[193] http://www.fovissste.gob.mx/

Social Security System of Public Employees, were established in 1972 as government-sponsored entities. They are the largest mortgage originators in Mexico with a market share of around 70%.

INFONAVIT provides funding for mortgage loans to private sector employees while FOVISSSTE provides funding to public employees. Neither institution is funded by the government nor do they directly come under the remit of the government. The funding comes from 5% mandatory contributions of employees' gross monthly wages, which are automatically deducted by the employers and deposited with these two entities. Another characteristic of the system is the two organizations' official designation as fiscal authorities by the Ministry of Finance and Public Credit which allows them to make automatic deductions from workers' salaries towards mortgage payments. Both INFONAVIT and FOVISSSTE provide basic loans as well as co-financing with private banks.

INFONAVIT also has a pension fund for retired workers that were previously active in the system and is the single largest pension administrator in Mexico with USD55 billion in assets under management, which is approximately one third of the market share in 2014.

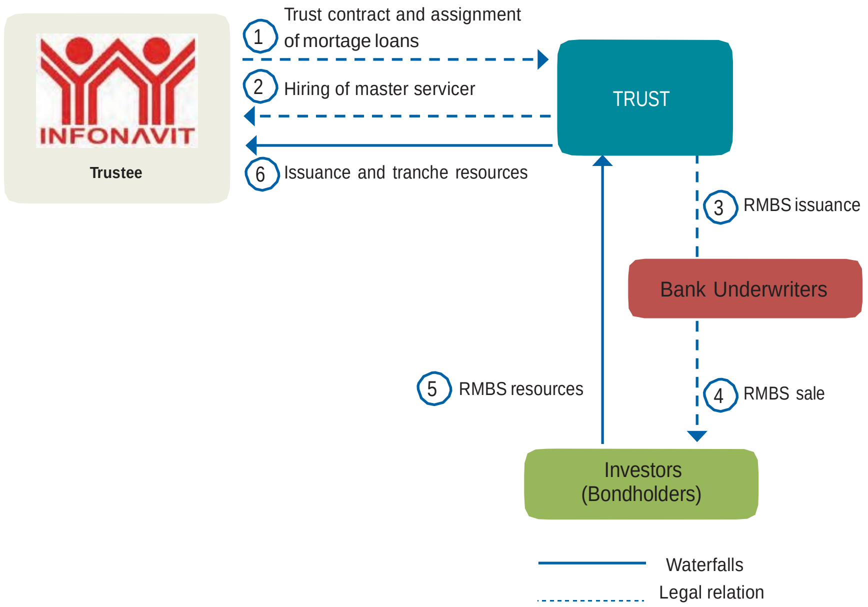
FOVISSSTE is funded through contributions of 5% of the gross monthly salary of each worker, collections of principal from its mortgage loans and investment income from excess cash. Additional capital is raised by issuing residential mortgage-backed securities (RMBS), commonly referred to as TFOVI. Currently, there are 2.3 million public sector employees from 32 federal entities who are FOVISSSTE members. Loans are only available to public sector employees who have contributed to FOVISSSTE for at least 18 months and the loans are granted only once in an employee's life time to enable the maximum number of workers to benefit from the system, given the very high demand.

SECURITIZATION PROGRAMS of INFONAVIT and FOVISSSTE

CEDEVIS – Securitization of INFONAVIT Mortgages

The CEDEVIS program was initially created as an alternative funding source to supplement INFONAVIT's initial capital base, which was funded primarily from its affiliates' mandatory payroll contributions. Over time, the CEDEVIS program evolved to become a tool

Diagram 20
Structure of CEDEVIS Program



that supplemented INFONAVIT's traditional funding sources. Additionally, the program has been able to demonstrate low delinquency rates through strong underwriting and qualifying criteria[194].

The milestones achieved by the CEDEVIS program to date include the following:

- The program increased the acceptance among institutional as well as retail investors who comprise 6.87% of the total investor base, with each successive issuance.
- Since its launch in 2004, CEDEVIS has successfully placed out 10 issues based on a structure similar to the one depicted in Diagram 20.
- While initial CEDEVIS transaction structures were relatively simple, to keep up with recent market innovation, CEDEVIS now features a dual AAA tranche structure that amortizes sequentially. This structure is known as time-tranching and it allows issuers to offer the market a mix of shorter as well as longer duration tranches.
- Starting from 2009, INFONAVIT included an additional cumulative default trigger with a dynamic threshold.

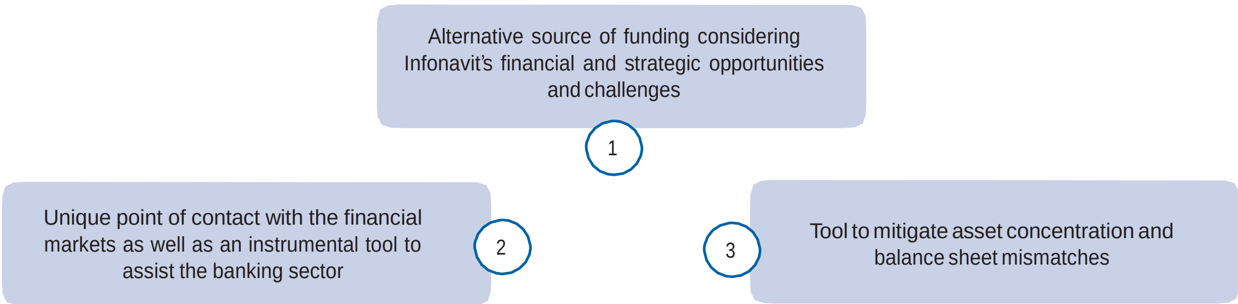
To better manage the initial bidding process, INFONAVIT invested in information technology, which allowed it to electronically receive bids during the book building process.

Since 2012, INFONAVIT made substantial efforts to improve loan origination through its credit scoring system and worked with employers to identify those with a good track record of mandatory housing contributions. This resulted in improvements in the quality of the credit pool.

Despite the fact that INFONAVIT is experiencing a declining need for additional funding, it is expected to continue to rely on the CEDEVIS program for additional sources of funds in the coming years. CEDEVIS is expected to remain as the preferred source of alternate funding primarily for the reasons set out in Diagram 21.

Diagram 21

Salient Features of the CEDEVIS Program



[194] Loans are reviewed to require a minimum of 12 months' seasoning (i.e. in order to be eligible for securitization, a loan must have been originated at least 12 months prior to the issuance. INFONAVIT issuances have a typical seasoning of 25-28 months since origination), maximum Debt to Income (DTI) of 35%, Loan to Value (LTV) average 80%, nil delinquencies, permanent existence in the sector as worker, automatic debt deduction from payroll and practices with respect to the process of underwriting. Additionally, INFONAVIT has a group of specialized professionals trained to address investors' needs, such as the Master Servicer (ACFIN) which provides in-depth analysis and reviews all transactions for pool information accuracy.

- CEDEVIS will be a strategic tool used to manage INFONAVIT's balance sheet by facilitating a more diversified asset type such as loans in MXN[195], and monthly minimum wages.
- It will strengthen INFONAVIT's capacity to generate financial income by supporting its new investment regime allowing a more diversified investment portfolio[196] and higher returns on the affiliates' housing savings accounts, primarily through reduced requirement for loan provisions with regards to the senior tranches.
- CEDEVIS will also leverage on INFONAVIT´s infrastructure to enable it to set up special purpose vehicles funded through the financial markets or private institutions to serve a new potential segment of the population that is not covered under any social security program, which otherwise cannot be served by the Housing Fund.

INFONAVIT became the largest single-entity issuer of mortgage-backed securities in the domestic market. CEDEVIS, which can only be issued by INFONAVIT, is a very popular financial instrument among investors. As of July 2014, INFONAVIT is one of the leading institutions in the bond market with an outstanding issuance of more than MXN$100.3 billion (USD7.7 billion), positioning itself as the main player in the RMBS market. INFONAVIT has been present in this market since 2004 and has issued 43 transactions involving public and private placements, and has a market share of 42%. Senior tranches of all CEDEVIS issuances have continuously been rated AAA[197]. In terms of performance, CEDEVIS has historically priced tighter than mortgage-backed securities issued by both non-bank and bank originators, largely due to the quality of the underlying loans and the issuer's direct deduction of mortgage repayments. CEDEVIS has generally outperformed other securitization transactions such as Sofoles in terms of delinquency and default rates[198]. The CEDEVIS structure has a single or dual AAA tranche structure that amortizes sequentially. Since 2008, CEDEVIS structures have also featured a mezzanine tranche that can be sold[199], but to date has been retained by INFONAVIT. In recent structures, the residual tranche have achieved the target overcollateralization, optimizing the capital structure[200] of the securitization without exposing investors to unnecessary credit risks. The continuously decreasing delinquency and default rates evidence the success of the CEDEVIS securitization program[201].

TFOVI – Securitization of FOVISSSTE Mortgages

In exploring new funding options and following in INFONAVIT's securitization route, FOVISSSTE established its own securitization program in 2009, securitizing mortgages that were originated between

195 Starting from July 2014, INFONAVIT has loans denominated in nominal Mexican pesos for all affiliated workers (*the portfolio denominated in Mexican pesos refers to traditional loans to a segment of population in addition to low income wage earners*), in addition to loans in Times Minimum Wages (*Times Minimum Wages refer to the loans granted to private sector employees with low income wages*), which are the ones the Institute has been lending since 1987. Loans in Mexican pesos have not been included in the securitization pool. However, as soon as INFONAVIT has enough volume of these, it will have the ability to structure peso denominated issuances.

196 INFONAVIT will have the ability, under a new investment regime to invest in financial instruments that will change the mix of income from the overall INFONAVIT portfolio. With this, the Institute will have a diversified source of income from financial instruments and the mortgage loan portfolio.

197 Ratings from S&P, Fitch, Moody´s and HR Ratings.

198 The comparison is with Sofoles that issued MBS between 2003 and 2008. As of 2013, Sofoles' RMBS had an 11.9% market share, an outstanding balance of USD1.5 billion and non-performing loans of 46%.On the other hand, CEDEVIS had an average default rate of 6% (180+ delinquency rate).

199 There have been three issuances: CDVITOT 11U, CDVITOT 13U, CDVITOT 14U where INFONAVIT is co-issuer with Banamex. In these three structures, INFONAVIT was able to sell the mezzanine tranches along with the senior tranches.

200 In the last years, Cedevis structures have started with overcollateralization of 18% growing to a target level of 8%. The buildup of credit enhancement, which has typically taken approximately three years, provides for a buffer to absorb future losses.

201 http://portafolioinfdoctos.cnbv.gob.mx/Documentacion/minfo/090_3a_R3a.xls

2002 and 2008. FOVISSSTE benefits from a number of unique structural advantages such as job security in government agencies, wage stability and members consisting solely of government-paid employees. Wage stability, which ensures stable cash flows and low levels of government employee turnover, results in loan portfolios that can better withstand an economic downturn. Another advantage for FOVISSSTE, as in the case of INFONAVIT, is that repayments are automatically deducted at source from monthly salaries.

To date, FOVISSSTE has placed out 22 successful securitization transactions, two of which have been repaid in full. The 90-day delinquency and default rates[202] with respect to the securitized pool of FOVISSSTE are similar to that of INFONAVIT. FOVISSSTE has obtained AAA ratings from S&P, Moody's, Fitch and HR Ratings[203] for its issuances in 2009 through to 2014 and its ratings have been maintained at this level. S&P gave to FOVISSSTE an "Above Average" note as "Residential Assets Administrator", as well as one in the highest national scale as a credit counterparty.

Challenges and solution provided

One of the major problems in emerging markets with rapidly growing populations is the increasing need for collective housing with sound infrastructure and proper urban planning. Mexico's INFONAVIT and FOVISSSTE are successful examples of solutions to this need. The standardized structures and payroll deduction features lend themselves well to producing high quality loans and stable cash flows, which are conducive for securitizations.

For many years, both agencies served as direct agents of state redistribution rather than credit underwriters. This resulted in high default rates reaching 20% during the 1980s and 1990s, mainly due to inadequate underwriting standards and politicized lending practices[204]. This situation resulted in reforms in INFONAVIT that had been implemented since 2001, and FOVISSSTE since 2006. These reforms have been instrumental to reducing the default rates to manageable levels through investments in information technology and investments in human resources, and through improved corporate governance standards.

A major challenge to housing affordability was the low GDP per capita and low saving rates among low-income borrowers. INFONAVIT and FOVISSSTE offer specific products targeted to employees at different income levels to resolve this problem. The demand for products offered outstrips supply mainly due to the attractive financing rates[205], in particular for low-income borrowers, and straightforward credit qualification standards. Further, interest rates for these products are subsidized by the Mexican government and vary according to income levels[206].

The maximum permitted size of each INFONAVIT mortgage loan is linked to the amount of wages earned. A credit scoring system is applied based on the applicant's age, salary, length of continuous employment and the balance available in the employee's housing saving account as an affiliate. The score must exceed a certain threshold to qualify. Those who cannot meet the necessary score are given the option to deposit additional voluntary savings and are allowed to participate in a program, which requires the accumulation of additional savings deposits at determined intervals.

Why it is successful – INFONAVIT

- INFONAVIT provides housing solutions that result in positive net worth values to its

202 It is important to notice that the delinquency occurs as long as the public sector workers leave the sector. FOVISSSTE explained that there's a strong stability in the sector. The delinquency is caused by administrative reasons and this is temporary.
203 HR Ratings is a rating agency headquartered in Mexico.
204 Certificados de Vivienda. Colección Cuadernos Infonavit. Centro de Estudios de Vivienda, CEVI. 2005.
205 INFONAVIT´s average financing rate was 11.05% in June 2014, whereas the market rate varies within the spread of 10%-13%, depending on the bank.
206 This is not a typical government subsidy but is a cross-subsidy among high and low-income workers. Employees with high-income levels are charged with higher interest rates while low-income employees are charged with lower rates.

affiliates. It undertakes fiscal collection, payroll deduction for loan payments and provides a housing account for each affiliated worker, and serves lower income workers who are not eligible under the risk criteria of private banks. Thus, it plays an important role in housing policy.

- INFONAVIT's financial strength is supported by its credit ratings, growing capital ratios and current level of equity.
- CEDEVIS' collections benefit from mandatory payroll deductions, which ensure stable cash flows. CEDEVIS is an asset class that has a standardized format, which is simple for institutional investors to understand. All of CEDEVIS´ issuances include a master servicer and the corresponding loan files are audited before the issuance takes place.
- INFONAVIT provides greater flexibility in terms of financial solutions throughout the affiliate's life.
- The green mortgage option introduced for borrowers helps produce more energy-efficient homes.
- INFONAVIT works with local municipalities to improve tax collections.
- INFONAVIT has an efficient investor relations and servicing team, which attends to investor enquiries.

Why it is successful – FOVISSSTE

- Efforts were taken in 2006 to modernize the system through investments in information technology and human resources, and improvements in corporate governance standards resulting in default rates reducing substantially.
- FOVISSSTE's portfolio is made up of high quality loans.
- The coordinated participation of employers, unions and employees provide scale to FOVISSSTE.
- High quality servicing standards and transparent criteria for loan granting ensure ongoing investor demand for FOVISSSTE products.
- Low loan-to-value ratio, typically below 80%, mitigates risk for investors.
- Attractive interest rates are an incentive for borrowers to participate.
- Public sector jobs offer a level of security which in turn results in low employee turnover rates and stable cash flows.
- Geographical distribution based on housing needs can serve as an important housing policy function.

Potential risks

Potential risks impacting both INFONAVIT and FOVISSSTE include:

- Loss of employment and migration of workers to the informal sector or to jobs where affiliation to the social security system (and therefore affiliation to the housing institutes) is not mandatory.
- A sharp economic downturn and government cuts can negatively impact job security and wage stability.
- Negative real estate market conditions.
- Deterioration in mortgage performance or asset recovery standards.

Potential risks that specifically impact INFONAVIT include:

- High dependence on a cross-subsidy model where the interest rate of higher income workers subsidizes the rate of lower income workers. Ongoing participation by higher income workers is therefore necessary.
- As high-income workers subsidize the lower interest rate offered to low-income workers, this may expose the portion of the portfolio comprising high-income workers to prepayment risk which may impact the duration of the entire portfolio.
- INFONAVIT may experience higher loan losses as compared to the banking industry due to the borrowers being in the lower income bracket.

D POOLED INVESTMENT VEHICLES

18. ASEAN INFRASTRUCTURE FUND: AIF

Basic concept

The ASEAN Infrastructure Fund (AIF) is an innovative regional co-operation and integration initiative created to fulfill the large infrastructure financing needs of the Association of Southeast Asian Nations (ASEAN[207]) region. The fund initially pools equity contributions from ASEAN countries and the Asian Development Bank (ADB[208]), followed by hybrid capital in the form of perpetual bonds and eventually through debt issuance via the capital market. It mobilizes sovereign savings, multilateral development bank resources, and taps foreign exchange reserves and global institutional investors through market-based financing.

Key takeaways

- The pooling of resources, knowledge and experience of governments, based on a partnership with a multilateral development bank, can play an important role in sub-regional policy coordination, risk management and capacity development for LTF.
- A co-financing arrangement with multilateral development banks or other parties can provide technical and operational expertise needed to succeed in the provision of long-term infrastructure financing.
- Structuring of the fund's debt issuance to meet reserve eligibility requirements may help retain regional sovereign savings for infrastructure investments within the region, and reduce reliance on external investment flows.

Key metrics

- Infrastructure needs in the ASEAN region are projected to be USD60 billion per annum between 2010 and 2020[209].
- Together with ADB as the co-financier for every project funded by an AIF loan, it is expected that AIF will create long-term infrastructure financing exceeding USD13 billion for ASEAN by 2020[210].
- AIF will be funded via equity contributions totalling USD485 million, hybrid capital in the form of perpetual bonds amounting to approximately USD162 million[211] as well as debt to leverage 1.5 times its equity.
- As of May 2014, the provision of AIF loans totaling USD65 million has successfully facilitated LTF for regional infrastructure projects worth USD658 million through its co-financing model with ADB and other partners.

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207 ASEAN is an organization established to promote political and economic cooperation as well as regional stability among its ten member countries comprising Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

208 ADB is a multilateral development bank that was founded in 1966 to facilitate economic development of countries in Asia through targeted investments in infrastructure, health care services, financial and public administration systems or helping nations prepare for the impact of climate change. The main devices for ADB's assistance are loans, grants, policy dialogue, technical assistance and equity investments.

209 ADB, Press release "ASEAN Infrastructure Fund Readies $1 billion Pipeline for Lending Operations", 1 May 2013. The infrastructure needs projected at USD60 billion per annum between 2010 to 2020 exclude national projects with significant cross-border impact.

210 Assumes co-financing by ADB constitutes 70%, ADB, Facts and Data about Southeast Asian Infrastructure, 3 May 2012.

211 ADB, Report and Recommendation of the President to the Board of Directors "Proposed Equity Contribution and Administration of ASEAN Infrastructure Fund", August 2011.

Background

AIF was established in September 2011 with the signing of the Shareholders Agreement which outlines the contributions and equity participation of nine member countries from ASEAN[212] and ADB. AIF was subsequently incorporated in April 2012, domiciled in Malaysia, and became fully operational in 2013[213].

A key objective of AIF is to achieve greater connectivity within ASEAN, including pooling of resources through enhanced infrastructure, to support the goals of the ASEAN Economic Community. Specifically, AIF will promote sustainable and inclusive regional economic development by funding the building of high-quality physical infrastructure, particularly in the sub-regions where development gaps persist. AIF will therefore play a crucial role as a source of LTF for the development of critical infrastructure projects in the ASEAN region, where infrastructure needs are projected to be at USD60 billion per annum between 2010 and 2020.

AIF adopts a co-financing model with ADB to provide financing for infrastructure development within the region whereby every project funded by an AIF loan is co-funded by ADB on the basis of 30:70[214]. Under this model, AIF also leverages off the operational and technical expertise of ADB to select and build the project pipeline using ADB's country partnership strategy process and annual programming exercise with developing member countries, and updates the pipeline annually[215]. Concurrently, ADB also screens opportunities under its various sub-regional cooperation initiatives[216] to determine projects that can form the basis of project identification for AIF. In addition, AIF benefits from ADB's expertise in project design, execution, implementation and evaluation as well as the management of its funds.

Initially, AIF will be funded via equity contributions over three annual tranches totaling USD485 million, of which USD335 million will be contributed by the nine ASEAN shareholder countries while the remaining USD150 million will be provided by ADB. After about 4 to 5 years of operations, AIF plans to augment its equity capital with hybrid capital in the form of perpetual bonds amounting to approximately USD162 million.

AIF also plans to issue debt to leverage 1.5 times its equity. The debt issuance program is a unique feature of AIF's business model because the debt instrument will be structured to meet the reserve eligibility requirements of the International Monetary Fund. In other words, the debt issuance program is designed to tap the region's substantial foreign exchange reserves while maintaining their reserve eligibility[217]. The AIF debt instrument will be targeted for investments by central banks from both within and outside the ASEAN region, as well as long-term institutional investors including pension funds, sovereign wealth funds and commercial banks.

To ensure its sustainability in the provision of LTF for infrastructure development, AIF will commence its lending operations with loans to only long-tenure

[212] The shareholders of AIF from ASEAN are Brunei, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

[213] ADB, Press release "Indonesia Power Project Marks First Loan of ASEAN Infrastructure Fund", 3 December 2013.

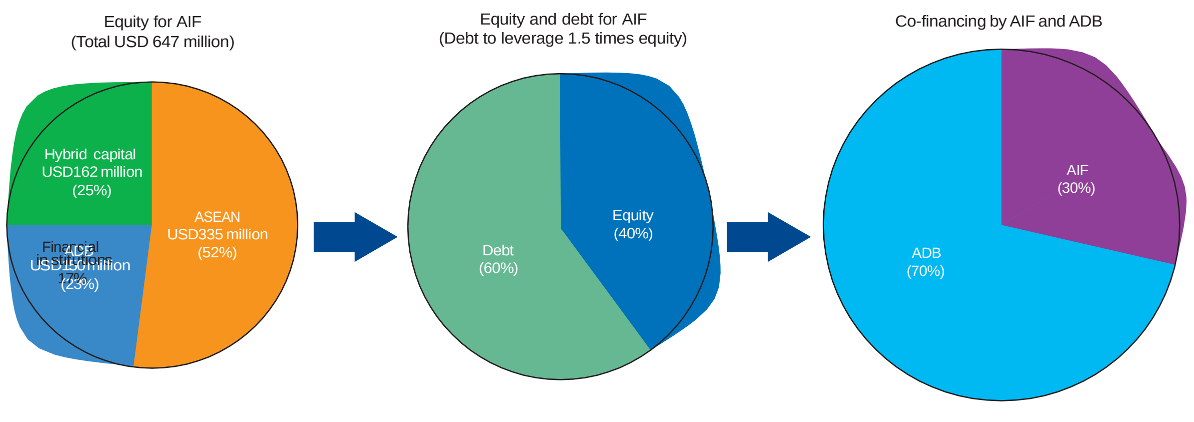
[214] ADB, Report and Recommendation of the President to the Board of Directors "Proposed Equity Contribution and Administration of ASEAN Infrastructure Fund", August 2011.

[215] ADB, Equity Contribution and Administration of ASEAN Infrastructure Fund: Project Pipeline, August 2011.

[216] The sub-regional cooperation initiatives include the Greater Mekong Subregion, Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area, and Indonesia-Malaysia-Thailand Growth Triangle.

[217] ADB, Report and Recommendation of the President to the Board of Directors "Proposed Equity Contribution and Administration of ASEAN Infrastructure Fund", August 2011.

Chart 6
Structure of AIF[218]



sovereign or sovereign-guaranteed infrastructure projects, which includes the public portion of public-private partnership (PPP) projects. Once it develops a strong track record, AIF will extend its loans to the private portion of PPP projects and even provide direct lending for private sector projects.

A simplified illustration of the AIF structure is set out in Chart 6.

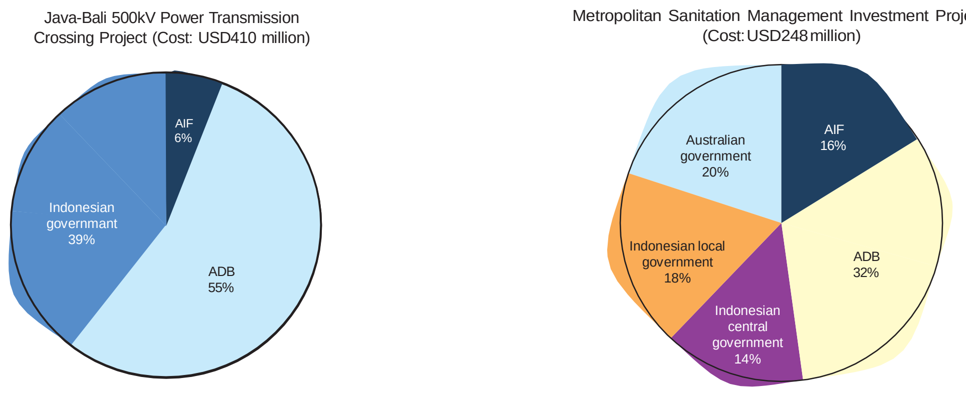
As of May 2014, AIF has co-financed two infrastructure projects, both in Indonesia. The first joint funding provided by AIF and ADB was in December 2013 through the extension of loans amounting to USD25 million and USD224 million, respectively, to the Indonesian government. This funding was for construction of the Java-Bali 500-Kilovolt (kV) Power Transmission Crossing Project to meet the future power demand in Bali while improving the long-term power supply security and efficiency of the Java-Bali power grid. These loans will be complemented by the Indonesian government's own financing of USD161 million[219].

In May 2014, AIF extended a second loan of USD40 million to the Indonesian government for the Metropolitan Sanitation Management Investment Project. This project aims to improve urban wastewater services in the cities of Cimahi, Jambi, Makassar, Palembang and Pekanbaru. It entails the construction of new separate sewerage systems and wastewater treatment plants as well as setting up local wastewater infrastructure management institutions and strengthening the relevant regional government departments. Further, ADB together with both the central and local governments of Indonesia will provide co-financing of USD80 million, USD35 million and USD44 million respectively, while the Government of Australia will extend a grant equivalent to approximately USD49 million[220].

[218] Source: ADB.
[219] ADB, Report and Recommendation of the President to the Board of Directors "Proposed Loans – Republic of Indonesia: Java-Bali 500-Kilovolt Power Transmission Crossing Project", November 2013.
[220] ADB, Report and Recommendation of the President to the Board of Directors "Proposed Loans – Republic of Indonesia: Metropolitan Sanitation Management Investment Project", March 2014.

Chart 7

Co-financing by AIF as of May 2014



A simplified illustration of co-financing by AIF as of May 2014 is set out in Chart 7.

Challenges and solution provided

AIF is a regional solution to the challenge of securing the necessary LTF for the development of crucial infrastructure projects within ASEAN. The amount of resources required to finance the region's infrastructure requirements far exceeds the lending capacity of ADB and outweighs each ASEAN country's ability to finance such infrastructure projects. In addition, despite substantial regional private savings and over USD700 billion in foreign exchange reserves within ASEAN at the time[221], investments were generally made outside of Asia.

Beginning 2012, AIF has an annual lending approval estimated at USD300 million. Its lending approval is expected to grow at 10% annually reaching USD440 million by 2016. Until 2020, AIF's total lending commitment is projected to be approximately USD4 billion[222]. Together with ADB as the co-financier for every project funded by an AIF loan, it is expected that AIF will create long-term infrastructure financing exceeding USD13 billion for ASEAN by 2020, assuming that co-financing by ADB constitutes 70%. The ability of AIF to obtain co-financing from other development partners, including private institutions for non-sovereign projects, will further elevate AIF's capacity to finance infrastructure development for the benefit of the ASEAN region.

Why it is successful

As of May 2014, the provision of AIF loans totaling USD65 million has successfully facilitated LTF for regional infrastructure projects worth USD658 million through its co-financing model with ADB and other partners. This model creates a risk-sharing vehicle that provides a possible solution to the deficit in LTF for infrastructure projects resulting from the perceived high risk and long tenure.

Additionally, this model of pooling resources, knowledge and experience may play an important

221 As of January 2011, prior to the establishment of AIF.

222 ADB, Report and Recommendation of the President to the Board of Directors "Proposed Equity Contribution and Administration of ASEAN Infrastructure Fund", August 2011.

role in policy coordination and capacity development among ASEAN countries. Given that the equity capital of AIF comprises contributions from ASEAN member countries, the AIF initiative serves as an effective platform to promote cooperation among ASEAN governments to undertake national and sub-regional infrastructure project development. It is also envisaged that AIF may be able to encourage greater private sector participation in infrastructure development through its direct financing of PPP projects at a later stage.

Finally, a unique feature of AIF is its planned debt issuance whereby the debt instrument will be structured to meet the reserve eligibility requirements of the International Monetary Fund to target purchases by central banks. Through this structure, AIF may be able to mobilize ASEAN's large foreign exchange reserves to fund the region's significant infrastructure needs through the capital market. The availability of AIF debt instruments for investments by institutional investors may increase the direct participation of the private sector in the provision of LTF for the development of regional infrastructure.

Potential risks

The key risk for AIF lies in its ability to establish a strong track record which is fundamental to it securing a high investment grade credit rating. A strong credit rating will ensure access to cheap funding to support AIF's lending operations while meeting the reserve eligibility requirements of the International Monetary Fund to target purchases by central banks.

19. EMERGING AFRICA INFRASTRUCTURE FUND: EAIF

Basic concept

The Emerging Africa Infrastructure Fund (EAIF) was established to address the market gap created by the scarcity of long-term debt for private sector-based infrastructure development in Sub-Saharan Africa (SSA)[223]. Its objective is to support projects that promote economic growth and reduce poverty. EAIF lends on commercial terms to demonstrate the viability of long-term commercial lending into the SSA countries.

Key takeaways

- The financing gap for infrastructure of under-developed emerging markets/regions such as SSA cannot be funded purely from public resources and through Official Development Assistance[224]. The key to achieve successful infrastructure projects is better and smarter aid.
- EAIF's structure as a mixture of public and private funding sources and its commercial approach to using private sector fund management is unique in contrast to purely private commercial lenders and Direct Foreign Investments.
- EAIF's long-term lending capacity of up to 15 years is its strength against commercial lenders in SSA who cannot grant financing for more than five to seven years.
- The flexible structure of EAIF enables it to be responsive and implement new solutions without time lag as experienced by some public development organizations.
- EAIF, operating alongside GuarantCo, allows it to mitigate risks associated with greenfield projects in SSA and secure more funding from equity sponsors in developed markets.

Key metrics

- Annual infrastructure investment needs in the SSA region are estimated to be over USD75 billion over the next ten years, of which USD38 billion is needed for new capital expenditures while the remainder for operations and maintenance.
- EAIF has grown to become a USD587.02 million fund in 2014 from USD305 million in 2002 when it was established.

Background

Established in 2002 as a USD305 million fund, EAIF has grown to be a USD587.02 million fund in 2014. It was the first initiative developed by the Private Infrastructure Development Group Trust (PIDG) to promote mechanisms to address the funding gaps that impeded capital provision for infrastructure services in the poorer developing countries.

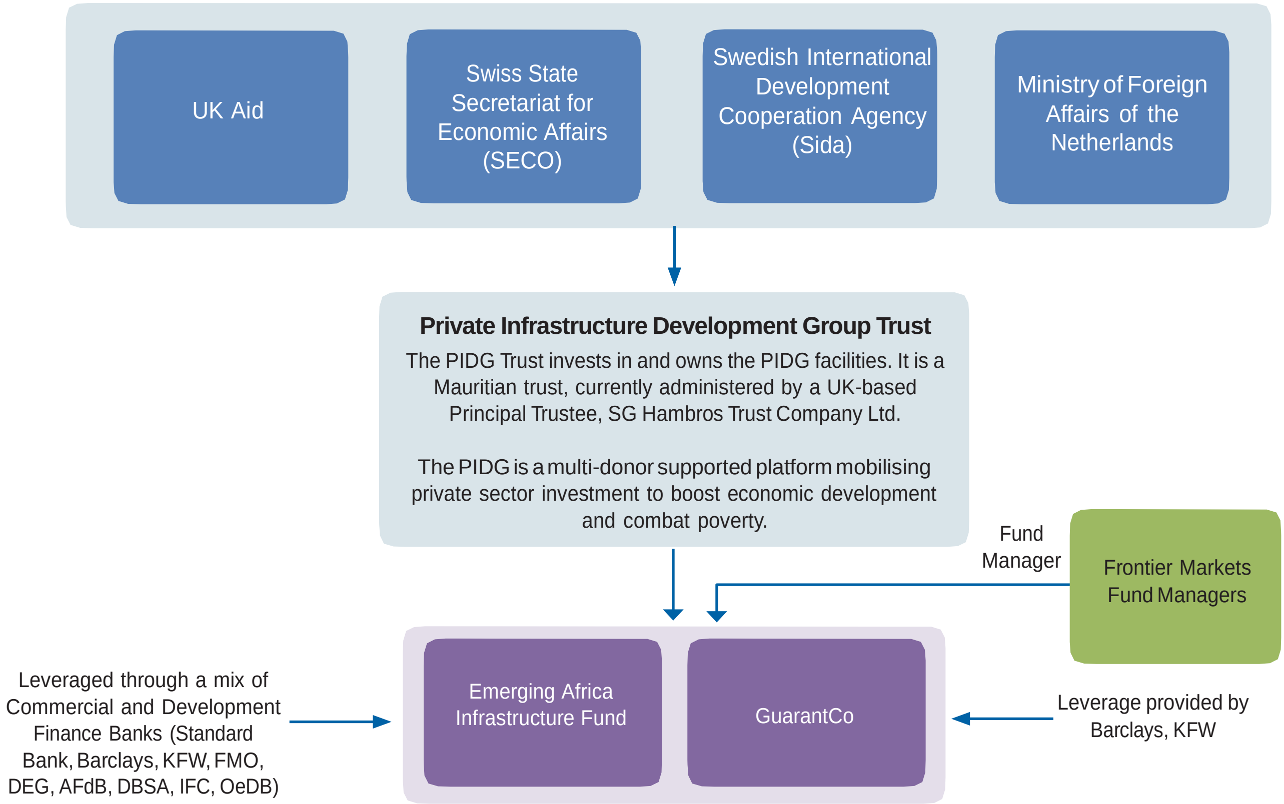
PIDG is a multi-donor initiative whose members are development agencies from Austria, Ireland, the Netherlands, Sweden, Switzerland, the UK and the World Bank. At the core of the PIDG initiative is the belief that infrastructure is important for sustainable development and that private sector investment is essential to increasing infrastructure services. PIDG has other initiatives, all of which are intended to complement each other and of particular note is its initiative, GuarantCo. GuarantCo provides guarantees to banks and bond investors to support mostly local

[223] Sub-Saharan Africa is, geographically, the area of the continent of Africa that lies south of the Sahara Desert. Politically, it consists of all African countries that are fully or partially located south of the Sahara (excluding Sudan).

[224] Official development assistance (ODA) is a term coined by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) to measure aid. The DAC first used the term in 1969. It is widely used as an indicator of international aid flow and it includes loans.

Diagram 22

The Emerging Africa Infrastructure Fund



currency finance for infrastructure projects in low and lower-middle income countries, promoting domestic infrastructure financing and self-sustaining capital market development. GuarantCo has a total guarantee capacity of USD450 million, of which USD300 million has been activated. EAIF is funded from public and private sources, and is privately managed by Frontier Markets Fund Managers Limited[225] (FMFML, formerly SIFMA6) since inception.

Frontier Markets Fund Managers (FMFM), a division of Standard Bank Plc, is contracted by FMFML to advise EAIF on its operations, including originating, due diligence, structuring and negotiating documentation for transactions as well as the management and monitoring of its portfolio.

A simplified illustration of EAIF is set out in Diagram 22.

[225] FMFML is a fund management company, incorporated in Mauritius and jointly owned by Standard Bank Group, FMO and Emerging Markets Partners (EMP).

Challenges and solution provided

- **The need for infrastructure in SSA:** Infrastructure investment needs in SSA are staggering. Annual investment needs are estimated to be over USD75 billion over the next ten years and increasing. About half, USD38 billion, is needed for new capital expenditures and the remainder for operations and maintenance.

- **Unavailability of capital markets:** The availability of the capital markets for infrastructure projects in SSA is best summed up by S&P, which highlighted that no project developers have seriously considered issuing project finance debt for a project in SSA[226]. Access to the international capital markets is primarily limited to investment grade issuers and few of the EAIF mandated countries are investment grade. Among the few of the EAIF mandated markets, there are no liquid and functional bond markets that can issue long-term debt for non-government entities with the occasional exception of Kenya. Currently, only a few African bond markets can offer relatively short-term government issues. Bond markets require liquidity to attract investments from pension funds and other institutional investors.

- **Commercial bank funding options are limited:** There were only a few international banks in infrastructure deals in SSA prior to the global financial crisis. There has been no commercial bank lending in this space in the aftermath of the global financial crisis. The EAIF Progress Report 2009 stated that, as highlighted by many market participants in the region, Barclay's rapid withdrawal as an active lender from the SSA region during the global financial crisis left a substantial financing gap. Regional banks' cross-border lending activity (i.e. South African (SA) banks) has been limited, mainly to the South African Development Community (SADC)[227] region and denominated in SADC region currency. Such lending is also concentrated in natural resources (i.e. hard currency[228] denominated). This lack of availability of LTF has also been the experience of African corporations who have been postponing their intended investments in infrastructure projects. SA's Development Finance Institutions (DFI) have also reduced the size of their loans and increased the pricing for their project lending. Loan pricing at less than Libor+500 basis points is presently unavailable.

- **SSA is principally a DFI market:** For local currency earning infrastructure projects requiring long-term finance, the market has been primarily supported by the DFIs. Consequently, EAIF's co-lenders are often DFIs, primarily FMO (Netherlands Development Finance Company), DEG[229] and Proparco[230,231], with whom they have signed cooperation

[226] Based on the fact stated in the report Emerging Africa Infrastructure Fund Progress Review-2009 published by EIAF.

[227] The Southern African Development Community (SADC) is a Regional Economic Community comprising 15 Member States; Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. Established in 1992, SADC is committed to Regional Integration and poverty eradication within Southern Africa through economic development and ensuring peace and security.

[228] Hard currency, safe-haven currency or strong currency is any globally traded currency that is expected to serve as a reliable and stable store of value.

[229] DEG-Deutsche Investitions-und Entwicklungsgesellschaft was set up to promote business initiative in developing and emerging market countries as a contribution to sustainable growth and improved living conditions of the local population.

[230] PROPARCO promotes private investment in emerging and developing countries with the aims of supporting growth and sustainable development.

[231] EAIF's financing comprises equity, provided by a consortium of the PIDG members (the EAIF donors), and senior and subordinated debt financing provided by senior lenders (Barclays Bank Plc, Standard Bank of South Africa and KfW) and subordinated lenders (FMO, DEG and DBSA).

agreements to share costs, undertake due diligence analysis and facilitate financing. In EAIF's projects, there had been one commercial bank that participated in a power plant financing in 2006 and a few in telecom projects. With size constraints, limited staff and their lending often tied to national interests, DFIs ability to make loan commitments (in terms of number of transactions) in the USD20-25 million range is also limited.

In addition to being the first fund or facility of its kind, EAIF is the only SSA infrastructure fund that offers long-term senior and subordinated debt[232]. Its novel structure as a mixture of public and private funding sources and its commercial approach to using private sector fund management is unique in contrast to purely private commercial lenders and DFIs. EAIF provides senior debt, subordinated and mezzanine loans, and guarantees to support local currency facilities with the main focus on senior debt. Senior debt can be offered on a standalone basis or with co-lenders. EAIF can act as an arranger, offer bridge financing or underwrite loans (subject to a limit of USD50 million), or join a lending syndicate. EAIF can lend for terms of up to 15 years. The Investment Policy does not limit the percentage of subordinated debt in its portfolio.

Why it is successful

EAIF, with a strong 13-year track record of successful long-term finance provision, is well established in Africa as a commercially-oriented and reliable long-term lender.

- Risk mitigation: EAIF's equity contributions by PIDG members who are predominantly government entities enable the fund to raise capital from the private sector and other DFIs, who look for PIDG members' equity to mitigate the level of risk of the investments made by the fund. EAIF carries on its operations alongside GuarantCo which has also been able to build portfolios beyond the equity contributions of PIDG members. GuarantCo provides guarantees to banks and bond investors to support mostly local currency financing for infrastructure projects in low and lower-middle income countries, promoting domestic infrastructure financing and self-sustaining capital market development.
- EAIF's support to a project enables either co-financing of the project from other sources alongside the EAIF facility, or follow-on financing from other sources by taking upfront risks to develop a project. In doing so, the fund reduces overall risk to a reasonable level for the private sector to invest, typically at financial close or shortly afterwards.
- EAIF´s successful experience in the African market to undertake different project mandates, its network and client relationship, and qualified technical knowledge and staff created confidence in African markets. The EAIF team has efficiently used their contacts, client relationships and African experience to obtain mandates. In the past, EAIF has taken a greater market leadership role acting as an arranger for a loan syndicate (Rabai IPP), sole lender in three projects and structured the subordinated debt in the challenging Seacom Project, a highly developmental undersea fiber optic cable. This is a strong demonstration of the confidence that borrowers, the Credit Committee (CC) and Board have in the team's ability.
- Strong credit control: The presence of a CC with experience in the market has an impact on the projects selected, which in turn impacts the portfolio. EAIF's portfolio benefits from a knowledgeable team and a solid credit evaluation process from the CC. FMFM conducts comprehensive due diligence and

[232] The fact that EAIF is the only SSA infrastructure fund that offers long-term senior and subordinated debt is based on The Emerging Market Infrastructure Funds and Facilities Inventory (EMIFFI), (Report funded by PPIAF), the inventory contains information on 262 funds and facilities currently operating or in the process of raising funds. A review of the websites of all SSA infrastructure funds listed did not turn up any debt infrastructure funds. A few funds might offer mezzanine level loans but most were for equity investments.

prepares detailed credit commitment papers for the CC and the Board to review and provide the appropriate "checks and balances". EAIF's Investment Policy limits the portfolio's concentration in order to manage risk (i.e. requiring portfolio diversity). EAIF then operates within its portfolio restriction limits. Project monitoring post-financial close is another important aspect attributing to the fund's success.

- Flexible investment policy: The EAIF Board has a flexible investment policy. The investment policy maintained by the firm over the past 13 years enabled EAIF to undertake viable projects. The policy limit for a single borrower exposure is 10% i.e. for a USD600 million fund, the single borrower limit would be USD60 million. The Board's preference is to maintain a diversified portfolio so the guidelines set it at USD36 million. EAIF has a cautious approach to investing in new markets which entails that the fund usually takes a limited exposure until it garners expertise. For example, EAIF recognized that concentrations in both power projects and Nigeria could test the sector and single country limits respectively. It is thus taking a wait and see view to maintain flexibility to review the circumstances.
- Initial lending fund: Set up in 2007, the Project Development Fund (PDF), which is funded primarily from accrued equity reserves and limited to USD1 million over a period of 3 years, is used to fund the project prior to receiving formal CC approval. Usually PDF funds are provided in exchange of equity in projects.

EAIF's value creation is both at an institutional level and on a transactional and developmental basis. EAIF has been successful in supporting projects that may not have been otherwise financed while also successfully creating an institutional framework to support its operations and portfolio.

Potential risks

- **The global financial crisis and DFI financing have a cost:** The global financial crisis increased the pricing of available sources of funding and reduced liquidity, which affected near-term opportunities for raising senior debt from commercial lenders and DFIs. EAIF's efficient pricing of term debt which may already be expensive for the market is dependent on managing its capital structure to maintain the lowest possible cost of funding. Therefore, while EAIF continues to seek additional lenders, the terms required for the additional funding may be cost-prohibitive for the moment.

- **Control for financial closure primarily with the lenders:** EAIF's 2013 performance reflects that finalization of its agreements are largely out of the control of lenders. EAIF has only signed two new projects, with six board-approved transactions pending financial close at year end.

- **Inability to secure required funding from PIDG equity contributors and co-financing from commercial lenders:** EAIF lends to capital-intensive projects that often require funding from multiple sources. While its co-financiers are diversified, over 74% represent foreign commercial lenders and DFIs, who are more likely to provide LTF.

20. FUND OF PENSION FUNDS: IFM

Basic concept

IFM Investors (IFM) is an investment manager owned by 30 of Australia's largest industry-based superannuation funds[233] (Super Funds). It offers a range of pooled superannuation trusts (PSTs), wholesale unit trusts, limited partnerships and segregated mandates for institutional investors globally.

Key takeaways

- Aggregation of resources by like-minded owners/investors has enabled IFM to develop a critical mass of investment capital and expertise which together have given those owners access to investments aligned to their investment profiles. Infrastructure financing has been a primary beneficiary of the investment model.
- IFM's Australian and global infrastructure funds have taken board positions on most of the infrastructure companies in which it chooses to invest. This allows it to closely monitor its investments and participate in decisions that impact its investment.
- Prudential regulation has been important to IFM's success. Regulations allow the channeling of pension fund assets into infrastructure investments partially through PSTs. The regulator's strong focus on risk management and governance ensures high standards in these areas.

Key metrics

- IFM is an investment manager based in Australia with AUD50 billion (USD47 billion[234]) in assets under management across infrastructure, debt investments, listed equities and private capital as of 30 June 2014.
- It is one of the largest infrastructure investors in the world with total funds under management of AUD19 billion in infrastructure investments.
- It controls 39 board seats across 26 infrastructure investments with operations in four continents, and has a global infrastructure team of over 50 investment professionals.

Background

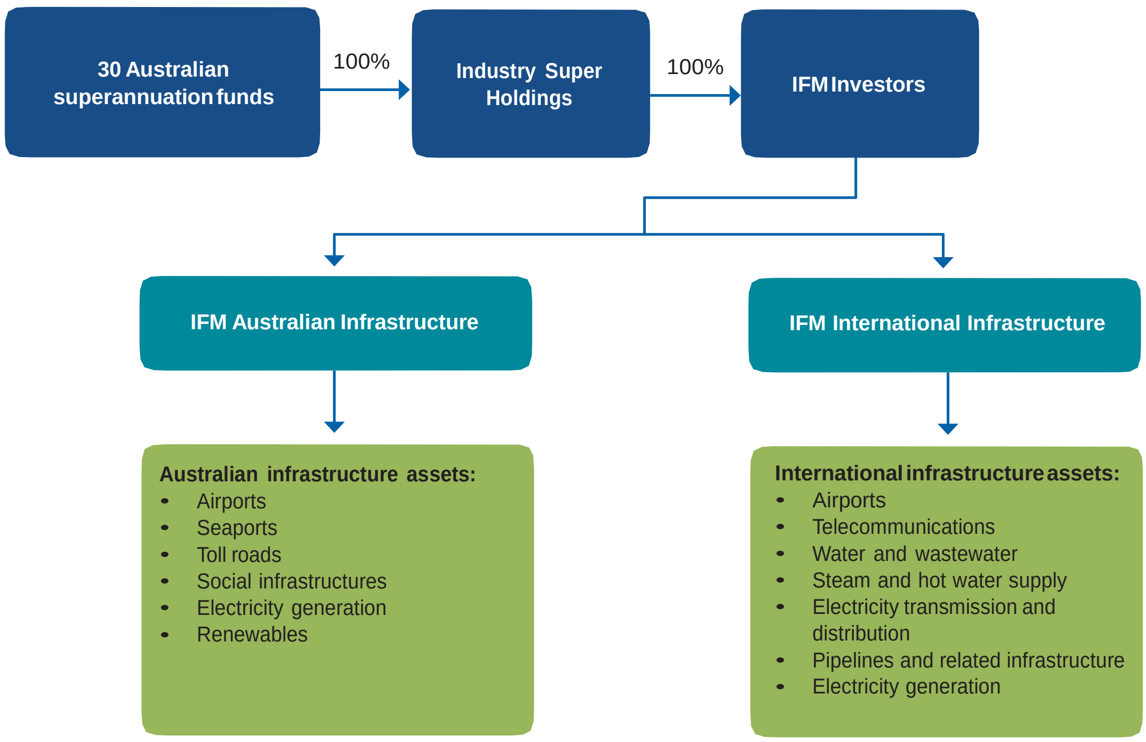
Established over twenty years ago and owned by 30 major Australian Super Funds[235], IFM's interests are deeply aligned with those of its institutional investors, the core of which are the Super Funds themselves. IFM takes a long term view of the future. Its owner-investor model ensures appropriate incentive alignment with its Super Fund owners. With a 19-year track record, IFM has been able to attract investments in its funds from long-term, like-minded and well-capitalised institutional investors from Australia, Europe and North America. IFM's investors include Super Funds, other pension funds, endowment funds, government authorities, universities, not-for-profit foundations and select family offices. As of 30 June 2014, IFM has AUD50 billion (USD47 billion) in assets under management across infrastructure, debt investments, listed equities and private capital.

IFM is one of the largest infrastructure investors in the world with total funds under management of AUD19 billion (USD18 billion) in infrastructure projects. IFM offers two open-ended funds focused on infrastructure investment:

233 Superannuation funds are pension schemes operated under the Superannuation Industry (Supervision) Act 1993. They are intended to provide income to Australians in retirement through compulsory contributions and accumulated investment returns over a person's working life.
234 Based on an exchange rate of AUD1 : USD0.943 as of 30 June 2014.
235 IFM's owners include large not-for-profit (or 'industry') superannuation funds such as Australian Super, Construction and Building Industry Super (Cbus), and the Health Employees Superannuation Trust of Australia (HESTA).

Diagram 23

Structure of IFM's Infrastructure Investment



- IFM Australian Infrastructure Fund (launched in 1995 to invest in core infrastructure assets located predominantly in Australia); and
- IFM Global Infrastructure Fund (launched in 2004 to invest in core infrastructure assets located predominantly in OECD countries).

Super Funds have invested in these infrastructure funds largely via PSTs and wholesale unit trusts, while other institutional investors typically invest via wholesale unit trusts or limited partnerships.

A simplified illustration of the IFM structure is set out in Diagram 23.

IFM's infrastructure team manages both of these infrastructure funds. The infrastructure team comprises more than 50 investment professionals that have expertise across a range of sectors and geographies. Furthermore, given the complexity of infrastructure investing, there are dedicated in-house teams that aid the infrastructure investment effort as follows:

- commercial team – legal, taxation, compliance and responsible investment;
- finance and operations team – investment, corporate accounting and information technology;
- marketing team – communications, product and pricing;
- business development team – new business, prospect and consultant relationship management, investor relations; and
- corporate services team – human resources and day-to-day office administration.

IFM focuses on investments in core, mature assets in developed markets which include Australia, North America and Europe. It invests in infrastructure assets with strong market positions, high barriers to entry, limited demand elasticity and long tenure. Its strategy is to invest primarily in brownfields assets, but IFM also adopts a selective approach to greenfield investments. A complete list of IFM's investments is included in Case Appendix "C" of this Note.

Challenges and solutions

One of the challenges faced by governments is in raising sufficient LTF for infrastructure development in their countries. Concurrently, pension funds and other large institutional investors with long-dated liabilities are seeking assets that generate stable income over long periods.

IFM provides a solution for these needs by matching the supply and demand of capital. In particular, by purchasing established, lower-risk infrastructure assets, IFM can channel long-term funding for public infrastructure projects. Through IFM, pension funds can also gain exposure to a range of assets which provide attractive long-term income flows. The pooling of resources of pension funds through IFM means the pension funds have access to the expertise of the fund manager. It also means they can invest in larger projects in a more diversified manner. As IFM continues to gain scale, potentially diversifies investments into other countries and builds its track record, it is also able to attract other long-term institutional investors globally.

Why it is successful

The success of IFM may be attributed to its model and operations as well as the regulatory framework and environment under which it operates.

The attraction for IFM's investors is the opportunity to aggregate both capital and expertise across a group of investors with similar investment philosophies and needs. Infrastructure is a particularly attractive asset class for IFM and its owner-investors because it matches the long-term investment horizon of pension investors. Infrastructure investments may also include revenue streams that increase with inflation. As such, pension investors may benefit not only from long duration assets, but also inflation-linked assets.

IFM is not required to disclose and does not publish performance data. According to IFM[236], its success is due to the following factors – each of which also benefits from its owner-investor structure:

- **A rigorous investment process.** IFM applies an investment process that has been developed and refined over the course of its 19 years of investing in infrastructure.
- **Patient, long-term investment.** IFM invests patiently and strategically.
- **Dedicated and experienced team.** IFM has a seasoned, global infrastructure team comprising infrastructure experts from a range of sectors and geographies.
- **Deal flow.** IFM has executed more than 70 acquisitions in infrastructure over the past 19 years. Its ability to source deals is aided by, among other things, its long investment horizon.
- **Responsible long-term investor.** IFM embeds environmental, social and governance considerations across the organization and within its investment process that is benchmarked against global best practice standards.
- **Open-ended structure.** As IFM manages through an open-ended fund structure, it has no artificial time horizon that dictates when it must invest or divest. IFM believes the open-ended structure is aligned with the long-term investment objectives of its Super Fund investors.

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236 IFM Investors website: http://www.ifminvestors.com, compiled with the help of ASIC.

IFM's model is possible partially because of the regulatory framework and environment under which it operates. IFM offers pension funds the ability to invest in infrastructure through pooled investment vehicles. Pension funds have invested into its Australian and International infrastructure funds through wholesale unit trusts and PSTs[237]. A PST is a vehicle established under the Superannuation Industry (Supervision) Act 1993. The agency that provides oversight for PSTs is the Australian Prudential Regulation Authority (APRA). Some of the key characteristics of PSTs include:

- PST investors must be superannuation trustees only;
- PSTs' returns are taxed on a concessional basis at 15%; and
- PSTs are subject to regulatory oversight in relation to risk management and governance.

IFM believes that appropriate regulation has also been important to IFM's success. The regulator's strong focus on risk management and governance ensures high standards in these areas.

Potential risks

The potential risks may include:

- The risk of investors overpaying for projected returns (as a result of too much money chasing the same assets).
- Given the concentration of the types of investors, the risk of a potential need to withdraw on a correlated basis. Given IFM's infrastructure funds are open-ended, investors can request that their units be redeemed at any time. However, this risk is mitigated by IFM specifically targeting like-minded, long-term, well-capitalized investors for its infrastructure funds. Furthermore, IFM has a history of attracting a steady flow of investor commitments to its infrastructure funds, which supports its ability to continue to deploy funds into long-term infrastructure investments.

[237] According to Super Fund Lookup (http://superfundlookup.gov.au) and APRA (http://www.apra.gov.au), Pooled Superannuation Trusts are trusts in which regulated Super Funds, approved deposit funds and other PSTs invest.

CASE APPENDIX C[238]

ASSET	ASSET TYPE	DATE ACQUIRED
AUSTRALIA		
Adelaide Airport	Airport	2002
Axiom Education	School buildings	2003
Brisbane Airport	Airport	1997
Eastern Distributor M1	Toll road	2000
Ecogen Energy	Electricity generation	2003
Interlink Roads	Toll roads	1998
Melbourne airport	Airport	1997
Mercy Health	Aged Care Facilities	2006
NSW Rent Buy	Public Housing	1991
NT Airports	Airports	2001
Pacific Hydro	Renewable electricity generation	1996
Perth Airport	Airport	1997
Port Botany	Seaport	2013
Port of Brisbane	Seaport	2010
Port Kembla	Seaport	2013
Praeco HQ	Defence HQ	2008
Southern Cross Station	Railway station	2003
Western Liberty	Law Courts buildings	2006
Wyuna Water	Water treatment	2003
NORTH AMERICA		
Colonial Pipeline	Pipelines and related infrastructure	2007
Duquesne Light Holdings	Electricity transmission and distribution	2006
Essential Power	Electricity Generation	2008
EUROPE		
50Hertz Transmission	Electricity transmission and distribution	2010
Anglian Water	Water and waste water	2006
Arqiva Limited	Broadcast and wireless communication	2004
Dalkia Polska	Heating and electricity generation	2006
Manchester Airports Group	Airports	2013

238 According to the IFM Investors website, compiled by ASIC.

CONCLUSION

IV. CONCLUSION

A gap between the supply of and demand for LTF for SMEs and infrastructure can be observed in developed and emerging markets around the globe, as highlighted by the G20 and others. In order for the real economy to be less reliant on traditional bank financing, policy makers and regulators around the globe are working to develop market-based sources of financing to support the growth and development of the real economy[239]. In an effort to contribute to this process, IOSCO undertook a review of innovative market-based structures and products that have provided financing solutions for infrastructure and SMEs, and found a number of tangible and practical capital market solutions that addressed particular financing gaps at the local, regional or global level. Working together with market participants and fellow regulators, the IOSCO LTFTF summarized these examples as case studies within this Note[240]. The purpose is to enable better sharing of experiences as some case studies may be suitable for further analyses and implementation in jurisdictions in need of market-based financing.

Developing Sustainable Market-based Financing

Market-based financing confers a set of advantages such as an open platform, a large number and diverse types of market participants, and enhanced transparency and efficiency. It can broaden sources of financing, and provide flexibility in matching the characteristics and interests of the suppliers and recipients of financing. Consequently, it is important to use market-based financing in a sustainable manner through policy and regulatory design. The IOSCO Objectives and Principles of Securities Regulation[241] outlines three key objectives of securities regulation: the protection of investors; ensuring that markets are fair, efficient and transparent; and the reduction of systemic risk. Policy and regulation should also create a level playing field between various channels of intermediation and segments of financial markets, such as banking and capital markets.

As markets and structures evolve, IOSCO members are frequently engaging with market participants. Providing sustainable market-based financing, in particular for SMEs and infrastructure, often requires input not only from regulators, but also from the private and public sectors. The case studies, covering the equity, debt, securitization and pooled investment vehicle segments of the capital market, demonstrate that changes and innovations can and do come from issuers, intermediaries and investors. They illustrate the ingenuity and dynamics of markets and how governments and industry participants around the world have found ways to develop or facilitate market-based financing. As the G20 builds on its initiatives related to market-based financing, IOSCO's work in a number of these areas will also continue.

Securitization

Among the four segments covered by the case studies in this Note, securitization is the segment that has experienced the most significant setbacks and faced

239 Mark Carney, "Global Economic Outlook, Financial Reform and UK Monetary Policy." Davos CBI British Business Leaders Lunch, Davos, 24 January 2014. Speech.

240 The inclusion of these case studies does not represent endorsement from IOSCO. A non-exhaustive list of potential risks that could be associated with each example has been provided. Investors, regulators and other stakeholders should properly assess risk factors and evaluate the specific political, jurisdictional and economic context in which these examples are successful.

241 IOSCO Objectives and Principles of Securities Regulation, can be accessed at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD323.pdf

most difficulty recovering after the global financial crisis. Securitization complements other wholesale funding sources, diversifies funding sources for issuers, and can transfer some risks to non-bank financial institutions. However, the loss of confidence from the global financial crisis, combined with various regulatory responses, are hampering investors' willingness to participate in the securitization market. While the crisis evidenced a need to ensure securitization markets and their participants are appropriately supervised and regulated, the development of simple, transparent and consistent securitization markets could further provide an alternative source of funding for economic activity[242]. The factors contributing to the success of ABS and MBS issuance listed in this Note have a strong focus on simple structures and well identified and transparent underlying asset pools with predictable performance while still impeding the resurgence of the more complex and opaque structure that contributed to the financial crisis.

Summary of Themes from the Case Studies

While the case studies in this Note are each unique solutions for SME or infrastructure financing, common themes can be observed. A non-exhaustive list of conclusions extracted from themes observed and the related case studies are set out below.

A. Themes Common to Both SMEs and Infrastructure

- **Impact of Regulation.** The regulatory framework of the market directly impacts the ability and willingness of SMEs and infrastructure project companies to access the capital market. Recent trends have indicated that SMEs are either unwilling or unable to access capital markets[243]. Regulations can be developed to design multi-tiered equity markets to address the capital raising needs of SMEs of various sizes and at different stages of development. NEEQ-China and TMX-Canada's multi-tiered markets have specific entry and ongoing regulatory requirements for SMEs that can facilitate direct access to the capital markets, and also allow SMEs to gradually transition to the upper tiers as the company matures. Potential risks and investor protection concerns can be mitigated through enhanced disclosures, investor suitability requirements and intermediation such as Chief Agency Broker requirements. In the case of IPC, listing requirements are tailored for infrastructure project companies to provide an alternative route for the direct listing of these companies while the CPC Program caters to the formation of pooled assets that are eligible for listing, which is used to acquire SMEs.

Regulatory incentives have also been utilized to influence issuers and investors for their participation in SME and infrastructure financing. In the case of Quadrivio, commercial banks benefit from regulatory capital relief by issuing ABS of SME loans. The eligibility of Lagos State Bonds as liquid assets increases institutional participation, particularly by banks that benefit from favorable treatment for the purpose of calculating their liquidity ratios. A combination of policy and regulatory incentives accorded to BDCs, owing to their limited function as pooling vehicles specifically for the purpose of investing in SMEs, can decrease overall funding costs. The Superannuation Industry (Supervision) Act 1993 provided some of the regulatory pre-conditions for IFM's model.

[242] BCBS-IOSCO Mandate to Review Developments in Securitization Markets. The mandate is intended to analyze how securitization markets have evolved since the crisis, and identify whether there are market forces or regulatory developments that may be hindering the development of sustainable securitizations as a diverse and resilient source of market-based finance, particularly in relation to the participation of non-bank investors.

[243] According to World Federation of Exchanges' "Market Segmentation Survey", the number of micro-cap companies listed in both the Americas and the Europe and the Middle East have decreased in recent years. According to the US IPO Task Force and the European IPO Task Force, long term trends could be observed in the decrease of number of small IPOs in both markets. OECD has published several studies with data and analyses supporting this.

- **Improving Financing Conditions.** All of the case studies in this Note improved the financing conditions for SMEs and infrastructure projects either directly or indirectly. The improvements include an increase in the availability of financing, more diverse sources of financing and/or lower cost of funding. These improved financing conditions may be driven by changes in regulations, efforts to cater to the needs of existing investors, issuers accessing a wider investor base, development of new investors/ intermediaries and development/establishment of new markets.

    - **Catering to Existing Investors' Needs.** Understanding the diverse needs and incentives of various types of investors is imperative for those seeking financing. Companies and assets in their "natural" state may not be ideal or eligible investment targets. However, further effort could be made by issuers and intermediaries to cater to investor needs and preferences. For example, dividend growth investors seek stable and growing returns over an extended period of time. By targeting or generating assets with steady cash flows, YieldCo and BDCs cater to the needs of this investor base. Similarly, IPCs are also regarded as an attractive investment due to the potential consistent dividend yields. IFM caters to the needs of pension funds and other large institutional investors, who have long-dated liabilities and are seeking assets that generate a stable income over a long period.

      Some investors may have motivations other than pure financial return expectations, such as environmental and religious considerations. Asset classes designed to appeal to these motivations may be attractive to such investors in search of niche products. Green Bonds and Sukuk are examples of tailored products that can fulfil LTF needs, thus providing a viable alternative to traditional bonds. Specifically, Sukuk are structured to cater to the requirements of institutional investors with mandates to invest in Shariah-compliant instruments, while Green Bonds are designed to meet the needs of a growing investor base who have an interest in climate friendly investments.

    - **Issuers Accessing a Wider Investor Base.** Several securitization examples that have widened the investor base for issuers are Hyundai, Trafigura and German Mittelstand, where the issuers were able to monetize underlying assets that have stable cash flows. In the case of Hyundai's ABS transaction, the use of cross-currency, cross-border securitization allows access to the offshore foreign currency ABS market. The listing of companies on equity markets in the case of NEEQ-China, TMX-Canada, IPC, BDCs and CPC Program provides issuers with a wider range of investors including retail investors.

    - **Development of New Investors/ Intermediaries.** AIF and EAIF are regional funds which were established to facilitate LTF for infrastructure in the respective targeted regions. Infonavit and Fovissste have state agencies to facilitate private sector investments in securitized residential mortgages. IFM facilitates funding from pension funds as well as other long-term, well-capitalized institutional investors into infrastructure financing.

- **Development/Establishment of New Markets.** Lagos State Bonds created a new municipal bond market in which pension funds participate alongside commercial banks. Quadrivio and Alibaba are two examples in which efforts were made to establish and grow the domestic securitization markets.

- **Role of Governments and Development Banks.** Support mechanisms to address specific threshold issues for banks, such as minimum credit ratings, are increasingly important as the SME and infrastructure funding gap widens globally. Governments can help catalyze the market for SME securities by encouraging institutional investor participation and promoting bank loans to SMEs. Increased participation from development banks in the ABS market, for example, enhances market perception, attracts new investors and increases the overall funding available to SMEs. Development bank involvement also helps alleviate the perceived risk associated with subscribing to a security backed by SME loans such as in the case of Quadrivio.

In order to develop large volumes of infrastructure projects, a catalytic contribution and involvement from development banks and national or sub-sovereign governments might be necessary as their intervention can assist in spurring the development of an underdeveloped market sector. This may be in the form of contributing financial resources, knowledge and experience, or establishing clearing levels for securities that would otherwise be difficult to place. Nevertheless, involvement purely from public resources would not be sufficient to address the financing gap for infrastructure, especially in underdeveloped emerging markets and regions. The key to achieving successful infrastructure projects is better and smarter support: for example a mixture of public and private funding sources with a commercial approach using private sector fund management may prove an effective solution, as showcased in the case studies AIF, EAIF, PBI and Lagos State Bond.

- **Deal Sourcing and Due Diligence.** Several examples have shown that challenges surrounding deal sourcing and due diligence can be resolved through increased information transparency, by leveraging on existing business information and data using technology as well as reliance on partners with specialized knowledge and information. NEEQ-China, TMX-Canada, IPC and YieldCo require standardized initial and ongoing public disclosures of information. Alibaba uses operating, payment and credit history data from its e-commerce platforms to assess potential borrowers for its credit approvals. The CPC Program is used by individuals with successful track records of deal sourcing and execution, and allows them time to search and complete a business acquisition. The BDC case study illustrates how experienced investment teams rely, at least partially, on partners who have existing relationships and information on those seeking additional capital.

B. SME Specific Themes

- **Economies of Scale.** SMEs generally are heterogeneous, have smaller financing needs, and lack sufficiently reliable business performance data and credit records for proper and cost-effective credit underwriting. The securitization case studies demonstrate the ability to achieve economies of scale through utilization of automated processes and standardization. Developments in technology that offer enhanced delivery of services may lead to greater availability of relevant credit data. For example, by utilizing automated processes in its micro-lending operations, Alibaba pools and packages outstanding SME loans into ABS which in turn allows it to maintain and grow its micro-lending operation. For the Domino's franchise securitizations, standardization is achieved at the business level, thereby enabling the franchisor to raise funds from the capital market. In the case of Hyundai, Mittelstand and Trafigura, standard types of credit are provided to their SME customers and funds are raised through pooling a large number of these credits.

- **Managing Risk.** From the investor perspective, SME investments are challenging and generally perceived to be riskier investments than larger corporations, mainly due to the lack of economies of scale, scarcity of data and credit quality information. It is therefore challenging and costly for investors to find SME investment opportunities and carry out the necessary due diligence. SMEs may also lack assets or have assets that are inadequate or unsuited to use as collateral. Furthermore, portfolio management for SME financing can be challenging and costly. The case studies in this Note have provided solutions to these challenges through the use of collateral-based financing, retention of first loss piece by the issuer, credit enhancement and novel methods for loan monitoring and recovery.

- **Collateral-based Financing.** Collateral-based financing has been used in the Quadrivio, Hyundai, Mittlestand and Trafigura examples to manage the risks of SME financing. The underlying assets of the securities in these cases are tangible assets consisting of mortgages, auto loans, equipment lease and trade receivables respectively, which are in turn secured by real estate, vehicles, equipment and commodities. However, collateral-based financing can also be secured using intangible assets as in the case of Domino's where the underlying assets primarily consisted of franchise royalties which provide a steady stream of cash flows. While under most circumstances, the cash flow from an SME is unlikely to be treated as collateral for a securitization transaction, the Domino's case study has proven that this can be overcome by securitizing scaled and predictable aggregated cash flows.

- **Retention of First Loss by the Issuer.** In all securitization case studies, the first loss risk exposure is retained by the issuer. This incentivizes the issuer, who is also usually the servicer of the portfolio of underlying assets, to actively monitor and manage the portfolio in order to minimize losses for the benefit of investors.

- **Credit Enhancement.** In the case of Quadrivio, the senior tranches of ABS backed by SME loans received higher ratings due to the provision of EIF guarantees.

- **Loan Monitoring and Recovery.** Post-lending, Alibaba is able to monitor and automate early risk warnings using up-to-date data from its integrated electronic platforms. Alibaba's ability to increase the borrower's cost of default provides an effective deterrence for delinquencies and defaults.

C. Infrastructure Specific Themes

- **Availability of LTF.** Infrastructure projects are perceived to be risky due to their long tenure, complexity and the presence of a number of diverse risks including political, construction, operations and interest rate. In addition, infrastructure projects may not generate positive cash flows in the early phases. On the other hand, financing requirements for infrastructure projects are such that funding has to be both long-term and stable. Given this, infrastructure projects may not find the supply of financing to be either adequate or affordable. Some of the case studies in this Note illustrate financing for infrastructure that was intermediated through the capital markets despite these challenges:

  - permanent sources of capital can be raised for infrastructure through public equity issuances, as in the case of YieldCo and IPC;
  - Sukuk can fulfill long-term debt financing needs as a viable alternative to bonds to provide greenfield and brownfield infrastructure financing;
  - pooled investment vehicles with permanent capital contributions such as EAIF and AIF can be an alternative source of LTF;
  - IFM increases the availability of LTF by pooling and investing pension fund assets in infrastructure; and
  - Green Bonds can tap sources of funding set aside for specific social responsibility purposes.

- **Investment Knowledge and Expertise.** Given the complexity of infrastructure financing, the lack of investment knowledge and expertise are often obstacles that deter investors from venturing into infrastructure projects. Apart from developing and accumulating knowledge and expertise internally, investors have also relied on others: EAIF uses an external fund manager and works with the largest commercial bank in Africa for its investment operations while AIF leverages on the operational and technical expertise of its co-financing partner for project screening and execution. Over the years, IFM has grown its own investment and support operations for infrastructure investing.

- **Managing and Sharing of Risk with the Private Sector.** The lack of private sector investment in infrastructure projects is often the consequence of the perceived high risk of these projects due to their long tenure, complexity and the diversity of risks including political, construction, operations and technical, among others. While few investors are willing to take all types of risks for the entire life of an infrastructure project, more are willing to take on a smaller set of more clearly defined risks. Therefore, in order to increase private sector participation, it may be helpful to employ risk sharing arrangements to appropriately isolate and contain some of these risks. YieldCos manage risks for investors by including only assets that have eliminated certain risks and are expected to generate more predictable cash flows while EAIF provides a system of risk-sharing where the equity contributions from public sources serve as a first loss protection for private investors. Credit enhancement is another mechanism used to manage risks. In the Sukuk example, investors are assured of repayment through the use of guarantees from the parent company. Deduction of cash flow at source in the case of Lagos State Bond as well as Infonavit and Fovissste increases the certainty of repayments to investors. In addition, in order to attract foreign capital, Lagos State Bond and EAIF both have currency hedging mechanisms in place.

- **Tackling the Challenge of Scale.** The scale of infrastructure financing is often too large for investors who are looking to diversify risk from individual projects or to be able to protect their interests post-investment. The issuer may also favor having a fewer number of investors for the purpose of communications and relationship management. Some of the case studies contain ways the market resolved this challenge. AIF, EAIF, IFM and Green Bonds illustrate methods of pooling capital from either heterogeneous or homogenous sets of investors.

APPENDIX I – LONG-TERM FINANCING TASK FORCE

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