November 2013

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Global Trade and Structured Finance: Alternative Financing Options

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Global Trade: Industry Insights and Solutions

Current Economic Conditions – Financial Crisis

Is the financial crisis over or entering a new phase?

1 U.S. 2007-2008

Credit & liquidity crisis

- Aggressive risk taking by highly leveraged FIs
- Loose credit policies fueled rise in consumer debt and home prices
- Caused global recession as financial markets seized
- Required massive amounts of fiscal stimulus, bank bailouts and bank b/s recapitalization
- US now experiencing modest recovery

2 Euro 2009-2011

Sovereign debt/bank crisis

- Deficit spending led to rising government debt
- Significant sovereign downgrades with spillover impact on banks who held sovereign debt
- Fiscal austerity and credit crunch led to EU recession
- Required massive amounts of bailouts within the EU for governments and banks, many of which were nationalized
- Challenges linger but an absence of new bad news

3 Emerging Markets 2013/2014

Slowdown and volatility

- Recent decline in EM GDP growth and stock indexes
- FX rates plunge for Brazil, Russia and India
- Triggered by collapse of G10 imports and China slowdown – tighter US fiscal policy will take a toll
- Many EMs have responded by fueling rapid credit growth, loosening fiscal policy and launching new infrastructure projects

3rd wave of the crisis or just a correction?

Basel III Global Impact on Banks

Basel III introduces radical changes in capital rules, new liquidity and leverage ratios as well as additional rules for global systemically important banks

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Issue	Impact
Global Systemically Important Banks (G-SIBs)	Raise Cost of Funding in Emerging Markets
Leverage Ratio	Potentially binding constraint
Liquidity Ratio	Impacts deposit pricing
Counterparty Credit Risk (AVC)	Raises pricing on LC confirmations
One Year Floor on Tenor	Raises pricing on all short-term Trade financing

Increases Quality and Quantity of Bank Capital forcing new approaches to Risk Distribution

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Banks Now Face Challenges in Meeting New Leverage Ratios…

New higher non risk based “backstop” - likely to be the main constraint to asset growth

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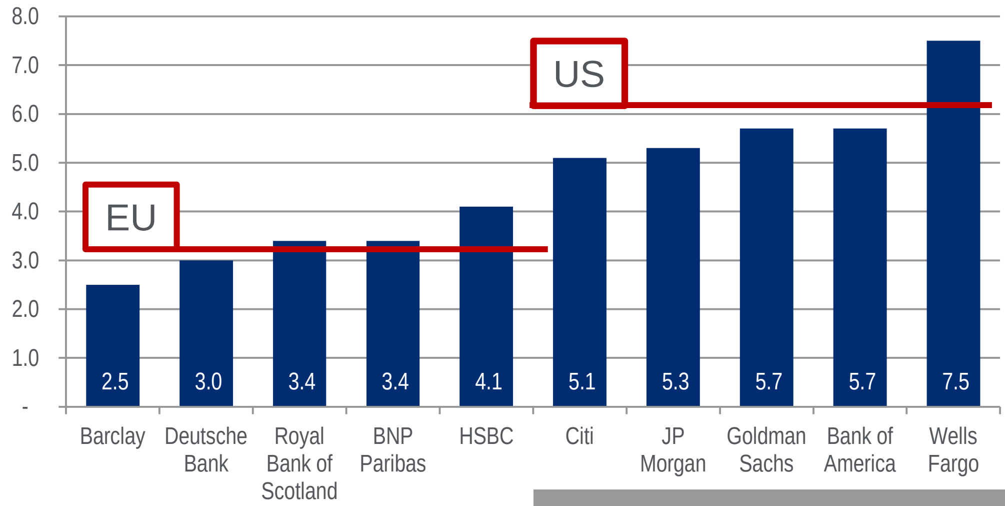
Leverage Ratios of
Major Banks as of June 2013



- Regulator desire to increase capital requirements in a simplistic fashion
- Concern about inconsistent use of bank’s advanced models
- Non-risk sensitive approach allows for quicker cross bank comparisons
- However it tells nothing about the true risk of the underlying assets

Impact on typical Trade Transaction

Type of Transaction	Basel II Leverage Ratio Capital	Basel III – US NPR Leverage Ratio Capital
$20M Trade LC	$20M x 20% CCF x 4% = $160,000	$20M x 100% CCF x 6% = $1.2M
$50M ECA financing	$50M x 0% CCF x 4% = $0	$50M x 100% CCF x 6% = $3M
$100M FI Trade Advance	$100M x 20% CCF x 4% = $800,000	$100M x 100% CCF x 6% = $6M

Significant increase in capital for Trade transactions under Basel III Leverage Ratio

1 Supplementary Leverage Ratio of at 5% BHC and 6% Bank applies to the large US banks on a non risk adjusted basis; EU banks subject to 3% Leverage Ratio
Source: Citi analysis; Reuters “Big banks face tougher lending rules than global rivals” published, Jul 9, 2013

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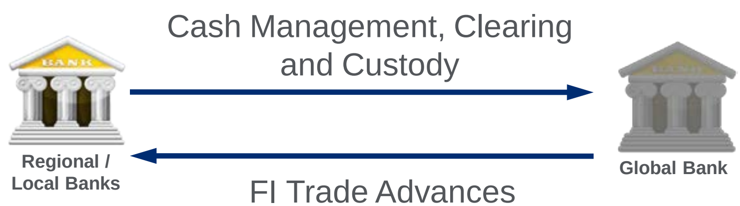
… And With LCR, Correspondent Bank Model is Dead

Capital becomes more expensive as the value of deposits plummets forcing changes to traditional funding models and prices – new correspondent banking models will need to emerge

Traditional Model



- Global banks provided relatively cheap FI Trade Advances in exchange for deposit business
- Value of deposits offset loan rates making this an attractive relationship
- Internal return hurdles typically met

Illustrative FI Transactions	Current RoRWA	Post LCR RoRWA	Total Change in RoRWA
China	29%	19%	-10%
India	9%	5%	-4%
Russia	25%	13%	-12%
Brazil	18%	13%	-5%

Basel III Impact

Capital
- Additional overall capital for banks
- AVC adds an additional 25% capital to most FI transactions

Liquidity
- New Liquidity Coverage Ratio
- 30 day Net Outflow for FI deposits make these deposits significantly less valuable:
  - Operating deposits @ 25%
  - Excess balances @ 100%
- 30 day drawn down for Trade Loans at 40% incurring significantly higher asset liquidity premiums

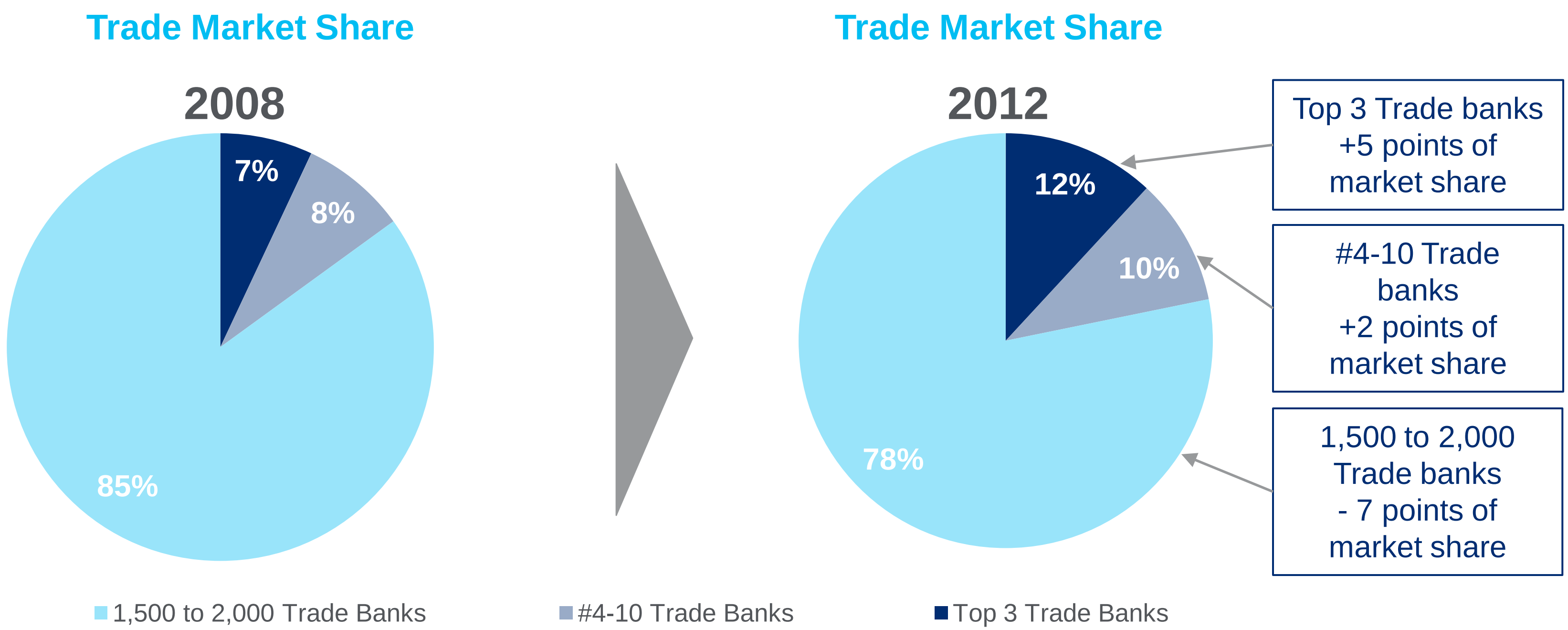
Returns
- **At current pricing internal return hurdles unlikely to be met**

Recent Citi analysis concludes that proposed LCR rules will cause typical returns from Correspondent Banking relationships to significantly decline: ROA down 20 bps and RoB3RWA down up to 10 points

Source: Citi analysis;

Market Trends – Top 10 Banks Gaining Concentration

Overall Market Growth 1.8% with the Top 3 Trade Banks Growing at 9x Market Growth



Drivers of Consolidation

- Scale needed for cost efficiency
- Required investment in technology and infrastructure – we spend more annually on IT than most Trade banks make in revenue
- Regulatory complexity and capital rules
- Access to USD funding
- Portfolio choices by banks to focus on core businesses
- Global network required to serve client's global supply chain

Source: Oliver Wyman report on Trade Market dynamics for market size; Top 10 Trade Bank size based on financial disclosures or estimates

Market Trends – New Spotlight on Risk Distribution

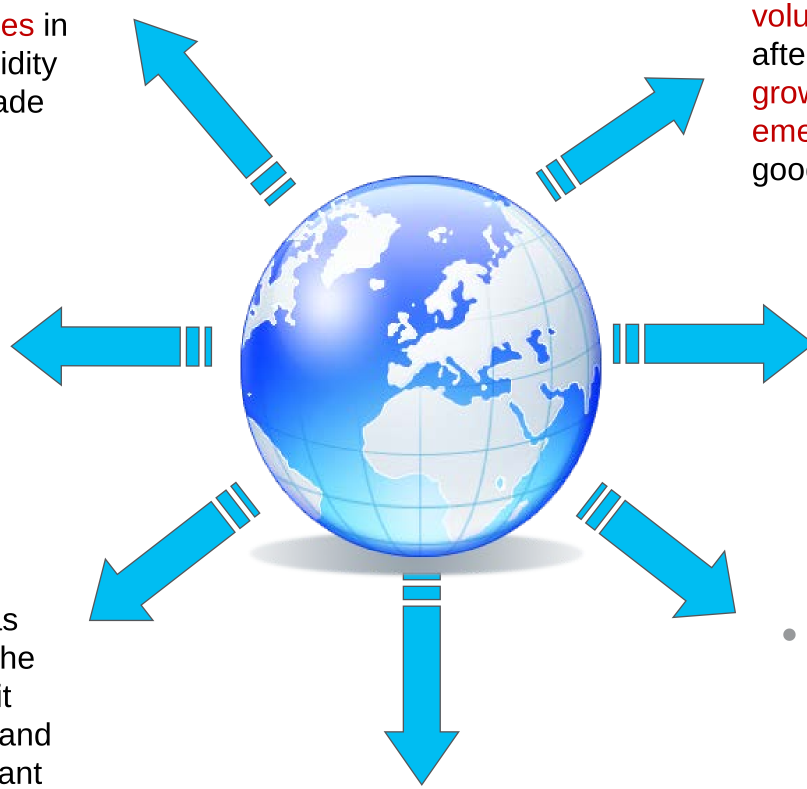
Basel III forces banks to rethink how they will use their balance sheets to generate returns shifting the emphasis from the traditional Book and Hold approach to an Originate to Distribute business model

Action	Activity Direction	Use of Bank's Balance Sheet	Comments
Book to Hold Asset on Balance Sheet	↓	Yes	Basel III capital requirements make returns less attractive
Bank to Bank Distribution	↓	No	Funded participations done on a True Sale basis enhance returns for existing deals, however as balance sheets becomes constrained under Basel III, originating banks will need to find additional capital sources
		Yes	Unfunded participations are problematic as they remain on the seller's balance sheet and are dependant on the participant's rating
Sell to alternative investors	↑	No	Need to develop investor appetite from insurance companies, investor funds and multilateral agencies
Partner with other banks	↑	No	Leverage Industry Partnerships such as BAFT / London Group, ICC Trade Register, AFTA and NAIC as well as club vehicles such as Trade Maps
Securitization programs	↑	No	BNP Paribas's Lighthouse (2013) Standard Chartered's Sealane II (2012) Citibank's CABS (2006)

Treasurer's View – Macroeconomic and Geo-political Trends

- Governments are responding with protectionist measures and supporting their own companies with increased Export Agency roles in providing financing and liquidity against even short-term trade transactions

- Trading patterns have changed: volume of world trade is slowing again after growth of 22% in 2010. Demand growth is currently concentrated in the emerging markets and basic consumer goods



- Access to liquidity has improved but it is still being impacted by market turmoil. Increased use of receivables discounting, to obtain liquidity from sales

- Sovereign risk concerns and market uncertainty have spread from the emerging markets to the EU. Austerity measures imposed on some countries have the potential to cause unrest

- Access to risk mitigation has become more difficult while the need has increased. Credit insurance is hard to come by and costs have gone up. Significant global move to share risk with banks on commercial based transactions

- Commodity prices have been very volatile, making transactions riskier (especially term transactions). More difficulties arise between buyers and sellers

- Small companies have felt the effects of the crunch disproportionately. Large companies are increasingly concerned about counterparty risk in their supply chains

Treasurer's View – Changing Landscape Impacting Strategy

Recent market developments and changes in the regulatory environment have brought increasing limelight on the treasurer's role. Host of new regulations determining key strategy topics

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A few examples	Implications	Strategy
Basel III (Global) Dodd-Frank (US) FATCA (US) Repeal of Regulation Q (US) Financial Transaction Tax (EU) MiFiD II (EU) Solvency II (EU) Securities Law Directive (EU) Single Euro Payments Area (EU) Independent Commission on Banking (UK) FSA liquidity regulation (UK) CBRC new capital adequacy ratios (China) APRA accelerated Basel III timeline (Australia)	Improve risk management: Emphasis on visibility & control Monitor regulatory changes and model impacts Increase cash operational control; Manage local and regional cash operations within a global model Improve forecasting & cash utilization Increase return	Centralize Treasury Operations **Focus on Working Capital Management** Improve Risk Management

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Working Capital Management, Risk Mitigation and Financing

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Citi's Supply Chain Finance Solutions help treasurers manage counterparty risk with a full spectrum of solutions from supply chain financing and receivables financing that can help optimize working capital and offer an alternative method of financing

Supply → Purchase → Production → Sales → Transport → Distribution → Retail → End User

Settlement
- Documentary Collections
- Import LCs
- Standby LCs

Financing
- Open Account
- **Supply Chain Finance**
- Commodity Finance
- Export Credit Agency

Information
- Electronic Delivery

Financing
- Inventory Finance
- Commodity Finance

Servicing
- Documentary Collections
- Export LCs

Financing
- Import Finance
- Export Finance/ Discounting Bills
- Commodity Finance

Information
- Electronic Delivery

Settlement
- Documentary Collections

Financing
- **Receivables Finance**
- **Distributor Finance**

Financing
- **Payables Finance**
- **Distributor Finance**

Risk Mitigation
- Confirmations
- Export Credit Agency

Procurement | Sales

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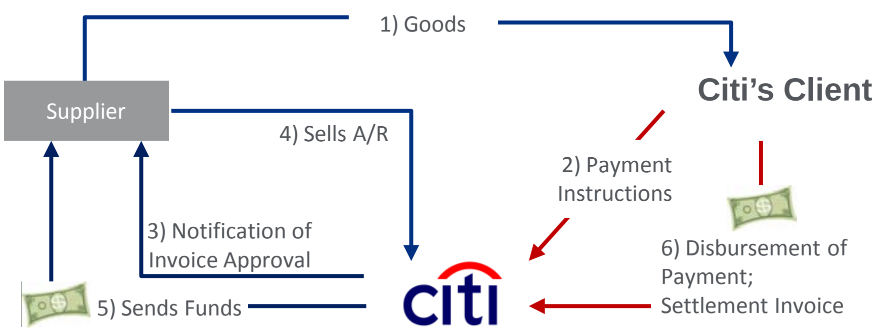
Solutions Overview

Specialized and highly structured programs between supply chain partners to manage working capital

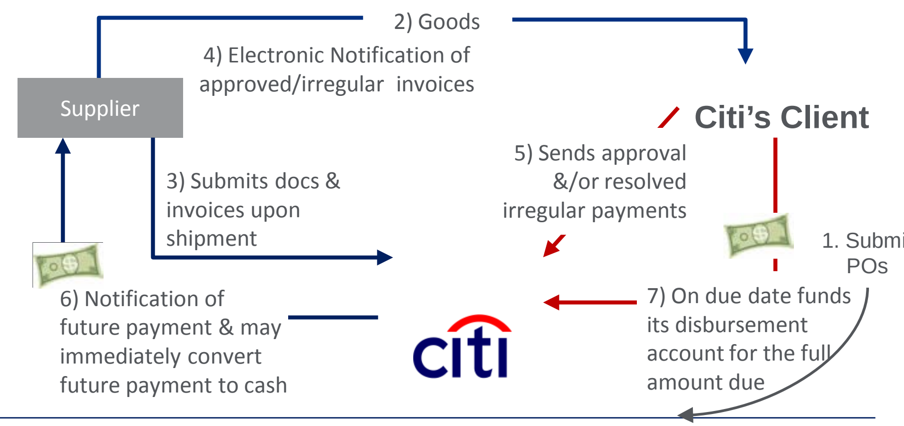
Supplier Finance

- Citi's Buyer –backed Supplier Finance Program can offer
  - Improved Commercial Terms and extended DPO
  - Affordable financing for Suppliers



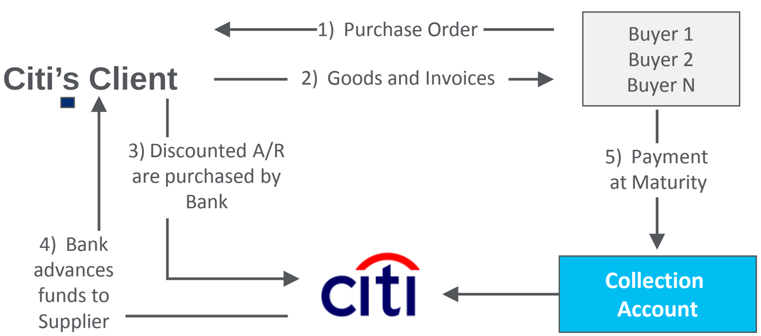
Open Account Processing w/ Supplier Finance

- Supplier Finance with Citi also processing paperwork similar to Commercial L/C documentation processing



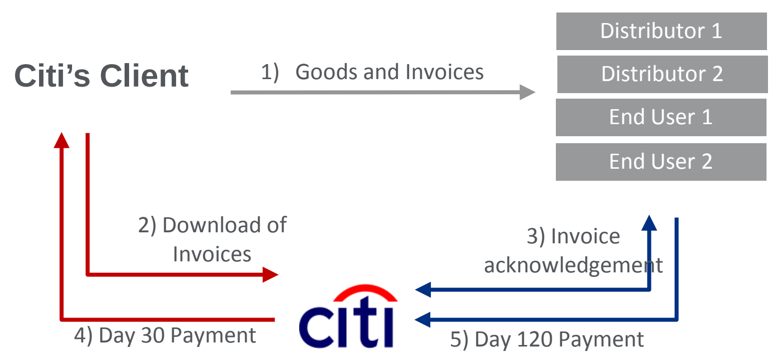
Accounts Receivable Credit Program (ARCP)

- Facilities can be structured for "off-balance sheet" or "on-balance sheet treatment
  - Decreases cash conversion cycle, reduces DSO and improves liquidity



Distribution/Distributor Finance

- To drive sales, decrease DSO and manage channel risk



Equipping our Clients with the Information They Need

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- A new client experience never before seen in transaction banking – ***Interactive Solutions***
- Helps clients visualize the benefits of TTS's global coverage and capabilities
- Offers insight into real-time customized working capital solutions based on client's goals, priorities, and preferences
- Enhances the overall solutioning experience

"Transforming the way we interact with our clients"

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Market Intelligence for Liquidity Management, Payments and Receivables and Trade Finance

Interactive Solutions: Trade Finance – What can it do?

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- Visualize client's Supply Chain
- Benchmark client's DSO, DPO, DIO, and CCC with peers
- Calculate benefits of a specialized Trade Finance program based on client's chosen parameters

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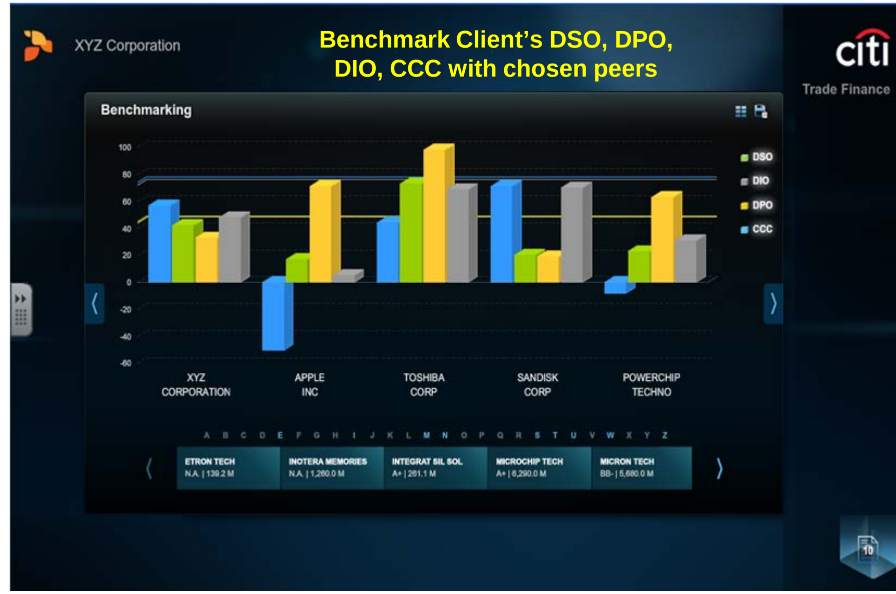
Trade Finance Module



Structured Finance: Trends and Implications

Structured Finance

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- Provision of financing solutions that are predominantly non-recourse to a specific corporate credit, and often utilize special purpose vehicles, bankruptcy remote structures, or other structural mechanisms designed to isolate a specific asset or cash flow
- Allows issuer to access funding at more advantageous economics than more traditional borrowing sources
- Bond or Bank execution
- Securitization, Project and Infrastructure Finance, CLO's

Representative Asset Classes

Consumer Receivables

- Auto Loans
- Auto Leases
- Credit Cards
- Personal Loans
- Student Loans
- Stranded Costs
- Mortgages

Commercial Receivables

- Trade
- Portfolio Finance
- Rental Cars
- Equipment Leases
- Future Flow
- Auto/Equipment Floorplan
- Middle Market Loans
- Outdoor Advertising
- Intellectual Property

Structured Transportation

- Aircraft
- Rail Cars
- Shipping

Infrastructure

- Pipelines
- Public Transport
- Airports
- Telecom
- Toll Roads
- Prisons

Power

- Coal
- Nuclear
- Natural Gas
- Hydroelectric

Alternative Energy

- Solar
- Wind
- Geothermal
- Bio Mass
- Energy Efficiency

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Structured Finance Markets – Asset Backed Securities

Structure Finance markets have made significant recovery post crisis, and have been differentiated from sub prime mortgages and CDOs

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Asset Backed Securities

- While off pace from 2012, 2013 global volumes expected to approach $300 billion
- Supply dominated by auto related securitization and CLO's
- Similar to other credit markets, ABS for much of the year has enjoyed significant oversubscription levels and attractive pricing

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Structured Finance Markets – Project & Infrastructure Finance

Project and infrastructure investment volumes continue to grow at a rapid pace. Increasingly, demand for project finance capital is expected to outstrip bank market capacity.

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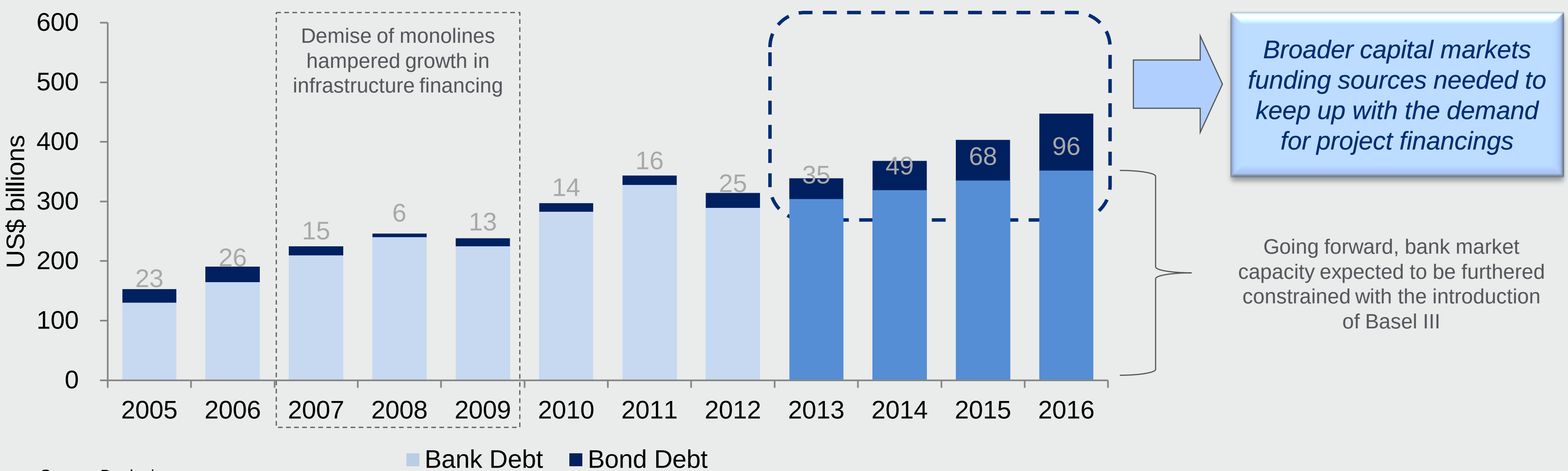
Investment Needs Continue to be Significant

(driven by need to replace infrastructure, the rapid industrialization of EM countries, population growth, and the need for alternative energy sources)

- Required investment in infrastructure / power in the European Union: €1.5 trillion over the next 10 years
- Clean energy investments in the U.S.: $245 billion to $340 billion over the next 10 years
- Latin America infrastructure investment: over $100 billion annually for each of the next 10 years
- India's estimated infrastructure / power spending: $1 trillion over the next 5 years

Historical Project Finance Volumes and Forward Outlook



Source: Dealogic

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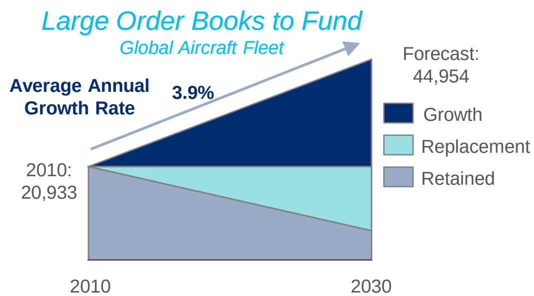
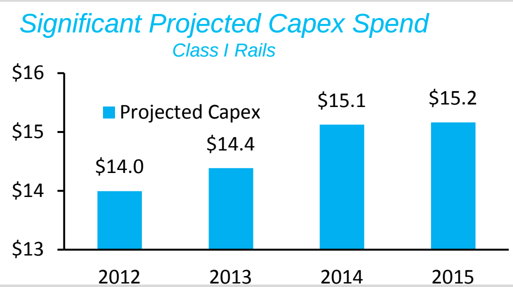
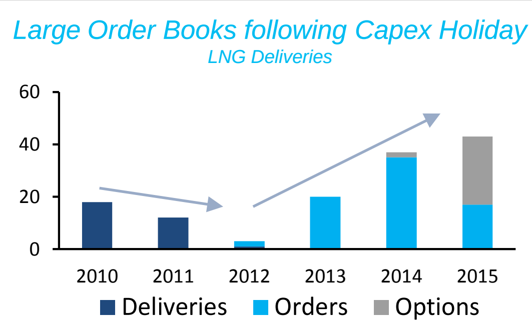
Structured Finance Markets – Structured Transportation

Today's Challenges

- ▼ Diminished bank market capacity
- ▼ Significant funding needs

Financing Needs

- ▲ Need for innovative ideas
- ▲ Capital markets innovation will relieve funding pressures

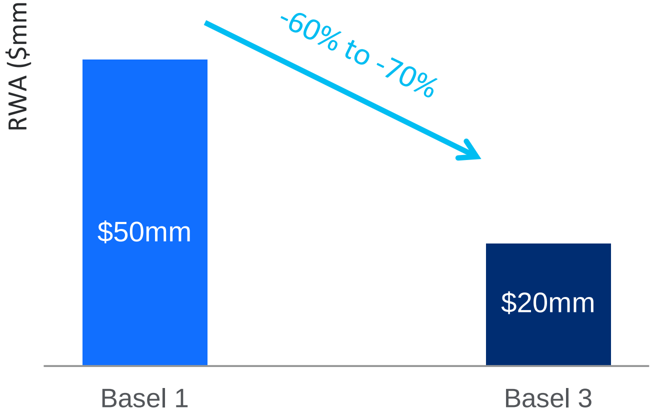
Sector	Trends	Need for Innovative Financing
		• Massive order books and refinancing needs create unprecedented demand for funding • Adoption of EETC product by non-U.S. airlines to broaden aviation capital markets • Leasing companies continue to access capital markets through both corporate and asset backed securities
		• Railcar leasing companies looking to improve cost of funds through securitization market – Market picked up in 4Q 2012 with two ABS transactions printed • Status quo for Class I rails
		• Container leasing ABS issuance remains robust with over $2.7 billion placed in capital markets in 2012 – Investor base continues to broaden as more accounts become familiar with the asset class – Deeper bid for container paper resulting in tighter new issue pricing • Charter monetizations – particularly in the LNG space – expected to pick up in 2013

Where Are We Going?

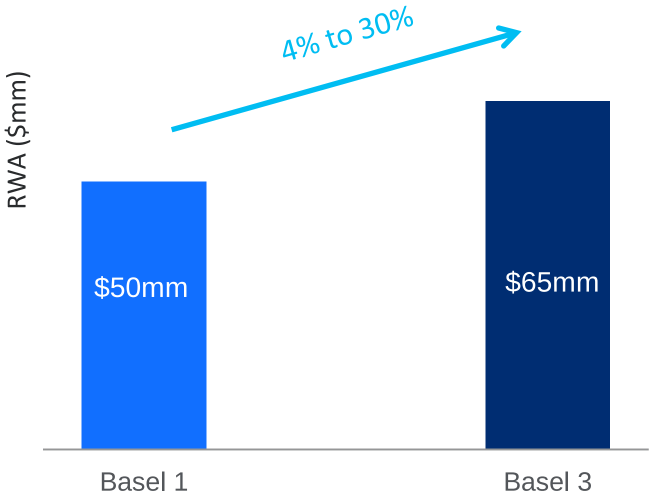
- Basel III and similar regulatory changes will have a material impact on how banks allocate capital
- Strong incentive to lend to higher quality credits and on a secured basis
- Supplemental Leverage Ratio (SLR) serves as a de facto cap on size of largest U.S. banks balance sheets, including both funded and unfunded commitments
- Liquidity Coverage Ratio (LCR) requirements will place pressure on banks ability to provide unfunded commitments
- Bottom line – Tighter structural terms and increased cost

RWA Example for Loans

Consider the RWA requirements for a bank loan under the following scenarios



'A' Credit Rating



'BB' Credit Rating

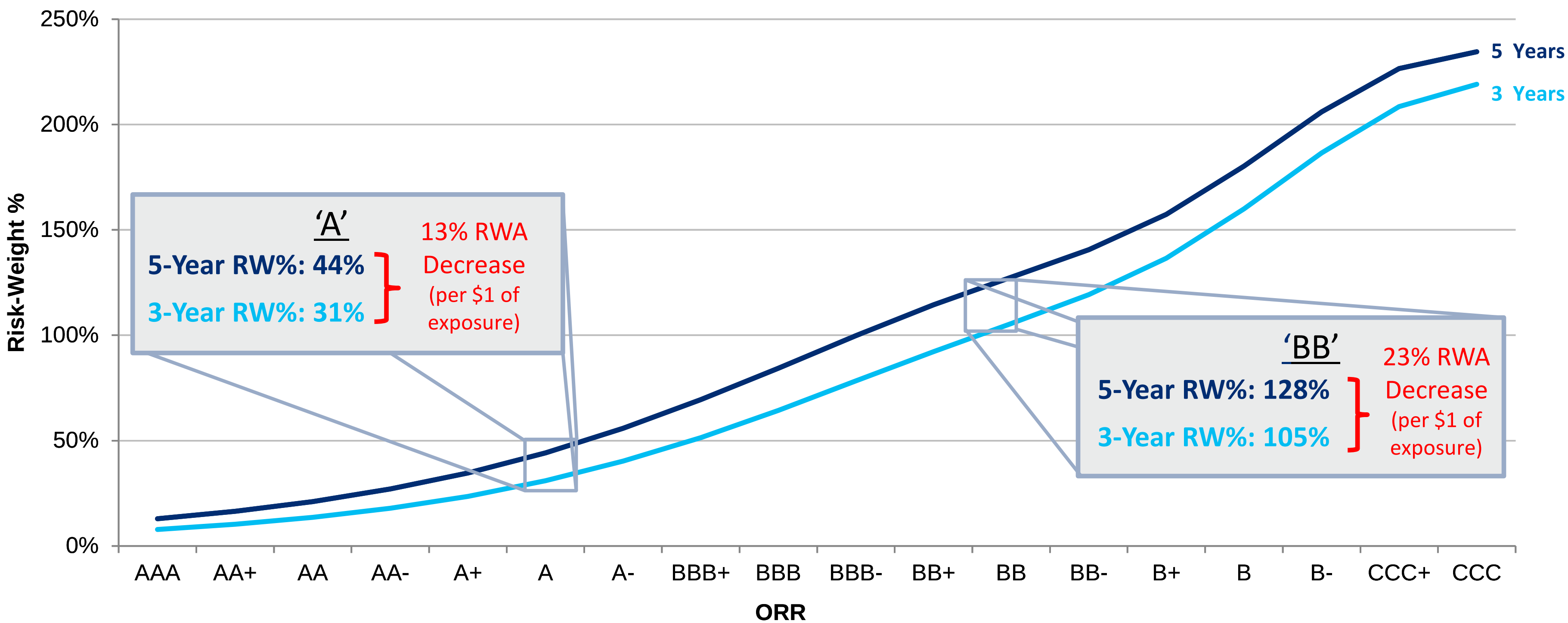
Facility Description

Facility Amount	$100mm Unused Commitment
Tenor	3 Years
Security	Senior Unsecured

RWA Sensitivity of Unsecured Loans

Loan Description	
Issuer Type	Corp
Maturity	3rs vs. 5yrs
Secured / Unsecured	Unsecured

RWA % Based on Credit Rating

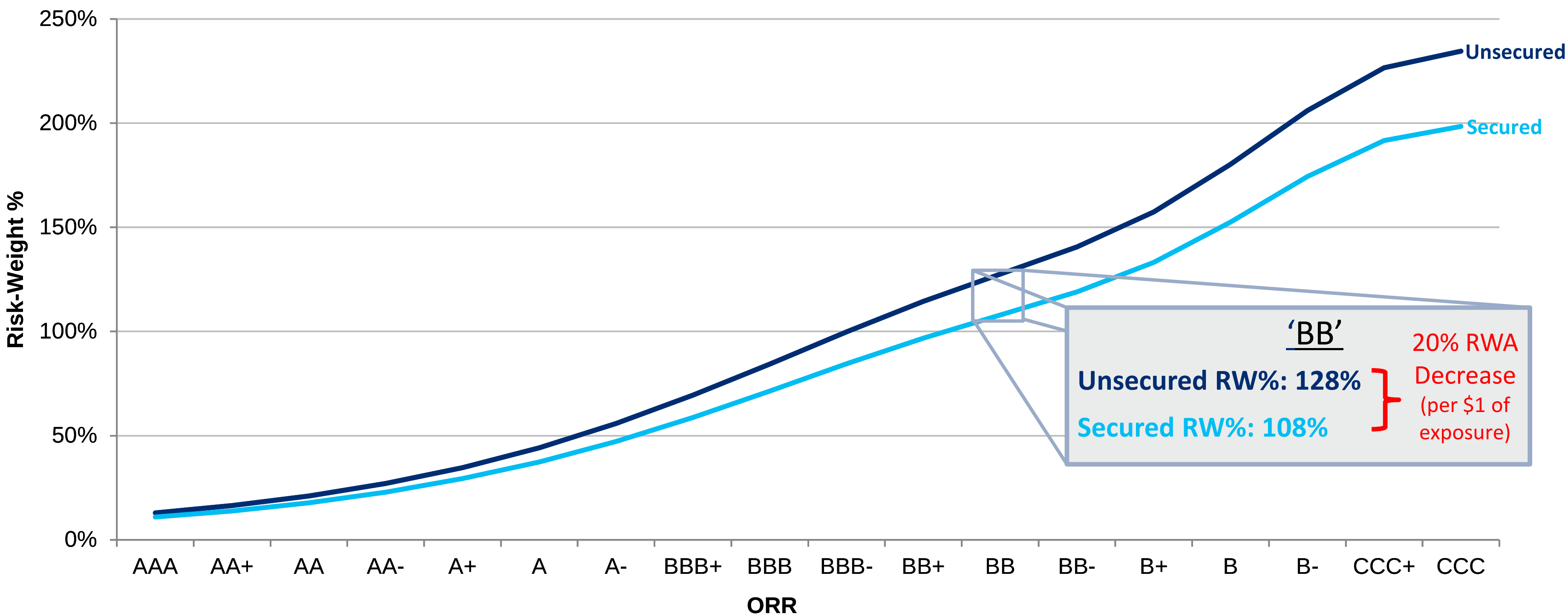


RWA Sensitivity of Unsecured Loans

Loan Description

Issuer Type	Corp
Maturity	5 Years
Secured / Unsecured	Unsecured vs. Secured

RWA % Based on Credit Rating



Where Are We Going?

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Implications

- Demand for Structured Finance will continue to grow as developed markets continue recovery and emerging markets continue to expand
- New regulatory regime favours structured lending for banks, but absolute balance sheet limitations will curtail activity
- Central bank driven interest rate environment, coupled with abundance of credit issuance, have left institutional investors in need of incremental yield and relative value opportunities
- “Funding gap” emerges as evolution of bandwidth and resources among institutional investor community will lag credit demand

Solutions

- Evolution of bank lending structures
- Development and expansion of institutional investor base

Evolving Bank Lending Structures – "Delayed Draw"

Recent bank facility renewals have included features that can mitigate the amount of capital banks have to hold for committed capital.

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Overview of Regulatory Capital Concept

Liquidity Coverage Ratio

- Banks are required to hold capital based on potential facility outflows (undrawn commitments) that could occur over a 30 day period
- Economic impact to bank lenders is the cost / negative carry of holding cash / low yielding securities for unfunded commitment amounts

Expected Impact

- The implementation of the LCR charges does not occur until January 2015, though all major banks are already implementing changes and reporting compliance with the LCR
- Bank lenders will generally fall into one of two categories:
  - Rely on increased costs provisions to protect against potential future LCR charges (if for instance a bank is not currently incurring these charges on their securitization lending positions) <u>or</u> implement delayed funding language consistent with the option below
    - Potential for parties to agree to amend facility should LCR charges occur to prevent increased costs
  - Require delayed funding language to ensure lending positions do not attract LCR charges
    - Precedent language generally allows lenders who are incurring LCR charges to, at their sole discretion, delay funding for a period of greater than 30 days
    - Mechanics could be incorporated such that lenders who are not incurring LCR charges to increase funding amounts up to each lender's commitment amount to cover for the delayed funders

Socially Responsible Investment (“SRI”) / Green Bond Offerings

In an era of growing awareness that socially responsible initiatives are good for business, SRI bonds have become one of the fastest growing segments in the fixed-income market.

Socially Responsible Investments

Socially Responsible Investment is any investment where both financial return and social good are considered

- Social good broadly includes the consideration of the environment, human rights, diversity, and corporate governance, among others.
- In a vacuum of leadership, the responsibility for considering climate change and other socially responsible agenda have fallen on the private sector

Issuers’ Perspective

- Many issuers, recognizing the potential impact from climate change and the associated high economic and social costs, have willingly assumed this responsibility and have adopted “green” or social initiatives
- A robust risk management process should consider the potential impact that Environmental, Social, and Governance (ESG) issues have on businesses
- An SRI Bond issuance allows the issuer to make a strong statement about their stance on these issues while attracting SRI-targeted investors

Investors’ Perspective

- The United Nations-supported Principles for Responsible Investment (“PRI”) Initiative has garnered over 750 signatures from asset managers in support of its Principal for Responsible Investment
  - Aside from SRI funds, which have been one of the faster growing asset base, many traditional money managers have incorporated ESG considerations into their investment analysis
- Investors, as stakeholders in a company, recognize their role as stewards of the company and that failures in ESG issues have a direct impact on the enterprise value of a company – evaluating companies’ ESG policies is an important risk mitigating tool

Example of Recent SRI Bond Across Sectors

- Supranationals have been relatively frequent issuers of “themed” SRI bonds where funds are dedicated to specific purposes
- IFC’s $1bn 3 year, led by Citi, is the largest SRI / Green bond launched to date
- Issuers have been active across a wide range of currencies / investor bases
- The World Bank has published very specific green project selection criteria and have raised US$4bn to-date in 59 transactions and 17 currencies

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- The first SRI bond ever issued by a European Corporate
- The purpose of the bond is to refinance the growth of its Home Healthcare division, whose ECG performance is rated by Vireo
- Priced a new €500mm, 9-year deal in 2012 with Citi as a Bookrunner

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Ile-de-France
Provence-Alpes-Cote d’Azur
Nord-Pas-de-Calais

- A number of French regions have issued SRI / Green bonds during 2012
- Proceeds raised are allocated to environmental and social projects

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- Has issued a TRY190mm Uridashi bond targeted at Japanese investors in July 2012
- Proceeds of the issue dedicated to various projects, lending and other financial supports themed to enhance sustainable business practices in the agribusiness in developing countries

Socially Responsible Investment ("SRI") / Green Bond Offerings

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Socially Responsible Investment Securities, issued in support of a socially responsible company or cause, have been included in portfolios of traditional fixed income investors as well as SRI-specific funds

SRI Formats

	Themed Bonds	Externally-Rated
Description	Themes • Renewable Energy • Waste Management • Clean transportation • Land Use • Forestry • Agriculture • Biodiversity • Energy efficiency • Clean water • etc. • The proceeds are designated specifically for environmental / socially responsible / sustainable use	• Issuer is rated by an extra-financial ratings agency which looks at the Environmental, Social and Governance (ESG) policies of the issuer/dedicated segment of the issuer • Examples of such agencies are Vireo, EIRIS, Ingrate, MSCI ESG
Considerations	• SRI bonds can take a number of forms: – Corporate Bonds (based on the full faith and credit of the issuer) – Project-Development Bonds (Special purpose vehicle owns the asset) – Securitization (Securitization vehicle of loans and/or assets) ▲ The industry is currently establishing a framework for this type of issuance to harmonize the process for SRI / Green Bond issuance ▲ Clearly identifies how the funds will be used	• Similar to credit ratings, the extra-financial rating applies to the issuer and will be updated on an on-going basis ▼ Although there are a number of agencies who would provide ESG ratings, there are no current market leading third-party assessor ▼ Standards for assessing ESG policies vary
Applicability	• Supranational agencies supporting socially responsible agendas – most green issuance by these agencies to-date have used this format • Corporate issuers in industries not consider "green", but have identifiable projects in one of the key themes – for example: – Automotive companies looking to support the leasing of green vehicles or the development of efficient energy sources – Industrial companies developing systems to provide clean water for its customers or its operations	• Precedent Transaction: Air Liquide • Can be applicable to many corporate issuers whose business are not directly tied to green technology – Provided that the issuer is not in an "ineligible" industry, a good rating from one of the ESG rating agencies may still be achievable if the company demonstrates strong governance or it's policies are socially responsible

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Questions?

Citi believes that sustainability is good business practice. We work closely with our clients, peer financial institutions, NGOs and other partners to finance solutions to climate change, develop industry standards, reduce our own environmental footprint, and engage with stakeholders to advance shared learning and solutions. Highlights of Citi's unique role in promoting sustainability include: (a) releasing in 2007 a Climate Change Position Statement, the first US financial institution to do so; (b) targeting $50 billion over 10 years to address global climate change: includes significant increases in investment and financing of renewable energy, clean technology, and other carbon-emission reduction activities; (c) committing to an absolute reduction in GHG emissions of all Citi owned and leased properties around the world by 10% by 2011; (d) purchasing more than 234,000 MWh of carbon neutral power for our operations over the last three years; (e) establishing in 2008 the Carbon Principles; a framework for banks and their U.S. power clients to evaluate and address carbon risks in the financing of electric power projects; (f) producing equity research related to climate issues that helps to inform investors on risks and opportunities associated with the issue; and (g) engaging with a broad range of stakeholders on the issue of climate change to help advance understanding and solutions.

Citi works with its clients in greenhouse gas intensive industries to evaluate emerging risks from climate change and, where appropriate, to mitigate those risks.

efficiency, renewable energy and mitigation