PENSIONS AND LONG-TERM FINANCE
Here’s the theory...long term investors = long term investments

INSTITUTIONAL INVESTORS OWN
$100 TRILLION ASSETS

INFRASTRUCTURE FINANCING GAP
$1 TRILLION ANNUALLY
Annual Investment Needs Developing Countries
Meet 2030 SDG

$3.9tn = Need
$1.4tn = Spend
$2.5tn = Gap

Assets US$ tn

Institutional Investors
Banking Sector
Stock Market Cap (domestic listing)
Government debt
Cumulative ODA (1960-2017)
PENSION FUND INVESTMENT IN DEVELOPING MARKETS

• In many developing markets, challenge is **high** rather than low interest rates….

• …which leads to pension/ social security fund (largest pools of domestic capital) concentrating investments in government bonds/ bank deposits…

• ….which leads to poor returns (diversification and returns are correlated)…

• …and domestic assets not being used for ‘productive’ investment in economic development

• Regulation can hinder rather than help

• Solutions?
  • *Get regulatory incentives right*
  • *Structure vehicles to access domestic investment opportunities*
  • *Allow some international diversification*
HIGH INTEREST RATE CHALLENGE

10 year Government Bond Yield

Benchmark Interest Rates

Inflation Rate vs. Bank Rate

2016 Macro Statistics
PENSION FUND ASSET ALLOCATION

OECD Global Pension Statistics

Pension Fund Asset Allocation in Selected Asset Classes (2016)
(% AUM OECD / Selected Non-OECD Countries)
INVESTMENT RETURN CHALLENGE

Nominal Investment Returns - Wage Real Growth, 2006-2013

Despalains, Remizova & Stewart (2017)

Portfolio Diversification vs. REAL Investment Returns, 2009-2015

Despalains, Remizova & Stewart (2017)
REGULATION CHALLENGES

• Overly restrictive asset class limits
• Relative return guarantees
• Focus on short-term returns / volatility
• Short-term performance measurement
• Switching
SOLUTIONS?
MACRO STABILITY

Government bond market reforms

- Budget planning / issuance calendar
- Maturity / benchmark creation
- Primary market infrastructure
- Secondary market infrastructure
REGULATORY INCENTIVES

Short-term
- Asset class limits
- Short-term performance
- Relative return guarantees
- Switching at will

Long-term
- Life-cycle
- Life-time nominal guarantees?
- Benchmark outcomes
CREATING INVESTMENT OPPORTUNITIES
MEXICO – CREATION OF INVESTMENT INSTRUMENTS

Currently there are six asset classes:

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<td>Structured Securities: CKDs (Mexican Private Equity)</td>
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PENSIONS FUNDS ARE INCREASING THEIR PORTFOLIO DURATION CONSISTENT WITH THEIR LONG TERM OBJECTIVE

Evolution of the Weighted Average Maturity

- Federal Government Public Debt
- Basic SIEFORES

Participation in Government Securities in the Pension Funds portfolios

Figures as of the end of April 2013. Information of the Federal Government Public Debt by the Central Bank last published date (February 2013).
Source: CONASAR Financial Vice-Presidency
NAMIBIA – CREATION OF SPVS

Regulation 28 of Pension Fund Act requires pension funds and insurance companies to invest between 1.75% and 3.5% in locally unlisted investments.

Regulation 29 Creates Special Purpose Vehicles which allow them to comply. These must have an independent Board or Trustees with fiduciary duty.

Appoint fund managers specially licensed to manage unlisted investments. Can invest in debt or equity according to the SPV own objectives – most so far have been in real estate and SME debt.

Charges 2-3% AUM – high PE style costs but small overall % of portfolio.
INFRASTRUCTURE
Changing Trends in Financing Infrastructure through Capital Markets

- Government/bank lending as a source of LT-financing is diminishing due to the financial crisis and new prudential regulations.
- Sufficient capital: institutional investors in OECD countries (USD 80 trillion) and Emerging Market Economies (EME) (USD 5.3 trillion) in AUM and USD 10 trillion if Sovereign Wealth Funds are included.
- Collaboration between Governments, development banks and multilaterals have and increasing role in “crowding in” private sector investments, in particular engaging long-term Institutional investors.
- DFI’s are recognizing the need to move away from traditional direct lending.
PRIMARY FINANCING SOURCES

Bank lending main source of financing progressively complemented by bonds
PRACTICE – LITTLE LONG-TERM INSTITUTIONAL INVESTORS ASSETS ARE IN INFRASTRUCTURE

GLOBAL PENSION FUNDS ASSET ALLOCATION: Source OECD
INCREASE AVE. allocation 1-2% OVER 5 YEARS

+$80bn
PROBLEM IS INVESTORS WANT TO INVEST IN THIS....
INVESTMENT NEEDED IN THIS....
DEFAULTS AND RECOVERY RATES

Default and recovery history - OECD/non-OECD countries

Cumulative Default Rates (BII) by OECD/non-OECD countries

For OECD projects
- The 10 year cumulative default rate (BII) is 6.1%
- The average ultimate recovery rate is 80.1%
- Average of 2.0 years to emerge from default

For non-OECD projects
- The 10 year cumulative default rate (BII) is 7.9%
- The average ultimate recovery rate is 80.9%
- Average of 2.9 years to emerge from default

Resilient credit strength of project finance transactions in emerging markets

Source: Moody's Investor Service
HOW TO BRIDGE THE GAP?

OUR ROLE AT THE WORLD BANK IS TO HELP GET TO THIS EQUILIBRIUM
LEVERAGING POWER OF GUARANTEE FROM DFI

Trends in Financing Infrastructure through Capital Markets

- Due to the aftermath of the 2008 GFC, capital remains more constrained with financing channeled to more targeted countries (e.g. low income) and sectors.
- Focus is on creating a catalytic effect
- Leverage on technical teams and global experiences to create innovative solutions suited to the local context
- Guarantees & Credit Enhancement: Products to de-risk projects and help mobilize commercial financing.
- Long-term sustainable solutions; capacity building and successful demonstration models/instruments
- Integrate different areas of support from the WBG: e.g. IFC, Energy and Transport GPs
WBG Areas of Support on Capital Market Solutions for Infra-Finance

Key Issues:
- Lack of supportive regulatory framework for infrastructure project bonds
- PPP Framework not supportive of viable projects sufficient PPP pipeline for Capital Markets financing
- Demand side capacity: Regulatory Supervision and Institutional Investors Capacity
- Lack of domestic capacity to support a solid Demonstration Transaction
- Guarantees/ Credit Enhancement/ Co-Investment

Key Solution Areas:
- Market Diagnostics and Technical and Advisory Assistance on changes/new guidelines (F&M – Cap. Mkts & Infrastructure Team)
- Project Preparation & PPP framework Support (WB PPP team)
- Technical Assistance and Support Hands On Training (Pension & Insurance Team)
- Project Identification, structuring and technical support (F&M Cap. Mkts & Infrastructure Team, GIF, IFC)
- Guarantees/ Credit Enhancements and Co Investment (IFC, F&M Cap Mkts & Infra Team, Global Fin. Solutions)

Overall Outcomes:
Sustainable Capital Market Solutions to support Long-Term Project Finance Market
WHAT ARE THE ROAD BLOCKS TO MATCHING INSTITUTIONAL INVESTORS + INFRASTRUCTURE?

- Currency
- Capacity
- Road Blocks
- Investment Vehicles
- Construction risk
- Regulation
- Lack projects
ROADBLOCK ‘MYTHS’ = PENSION FUNDS CAN’T….

#1… take on construction risk

• Can with expert partners who can monitor
ROADBLOCKS - PENSION FUNDS CANT......

#1... take on construction risk
- Can with expert partners
- In emerging markets need to for yield

#2... invest in illiquid assets
- Rated/listed instruments can be created
ROADBLOCKS PENSION FUNDS CANT……

Myth #1… take on construction risk

• Can with expert partners
• In emerging markets need to for yield

Myth #2… invest in illiquid assets

• Small % portfolio
• Rated/listed instruments can be created

#3…invest due to regulation

• Regulators open to amendments
INVOLVE INSTITUTIONAL INVESTORS FROM START OF PROJECT

- Capital market instruments complex to create
- Easier to go to banks
- Need to make space for local currency financing
TRANSFERING LESSONS......
COLOMBIAN STRUCTURE: CO-FINANCING BETWEEN BANKS AND INSTITUTIONAL INVESTORS

1. $20 bn Toll Road PPP program, too large to be fully financed by international and local banks.

2. 10 out of 40 projects reached financial close; 2 of them have significant LCY funding from local pension funds.

3. Pension funds invested through
   - ✓ Infrastructure Debt Funds with IFC co-investing
   - ✓ Infrastructure Project Bonds

4. Key features of the capital structure:
   - Hybrid-financing model: a syndication of bank loans at shorter maturities (12 years) and the debt fund (both loans and project bonds) at longer maturities (19 years).
   - Bond financing was a combination of LCY and Hard Currency
   - International investors participated in both the USD and LCY bonds
Infrastructure needs in Kenya are vast: about $4 bn per year (6% of GDP)

The GoK is committed to a solid (PPP) program being prepared since 2012: about $3-4 bn of toll road projects coming to market (WB IFPPP Loan)

Significant progress made on PPP; first 5 mover PPP road projects coming to market with one already @ RFP stage

Pressure on public debt

Critical to finance part of the debt of these projects in local currency for:

- Cost and sustainability of PPP program
- Opening up new assets for domestic investors
- Capital markets deepening
Kenya has the pre-conditions to crowd-in institutional investors into infrastructure

- Pipeline of well-structured PPP projects
- Institutional investors are sizeable (assets under management at 18% of GDP)
- GoK commitment to implement enabling environment changes as necessary. Open dialogue to address:
  - Market concerns on PPP “safeguards” and contractual arrangements
  - Capital markets and investment regulations
  - Reforms in the sovereign debt markets
- International interest (sponsors and debt financiers) in investing in Kenya alongside domestic investors
- Strong support from Development Finance Institutions: quality control, credit enhancement and co-investment
HOUSING
INTERNATIONAL DIVERSIFICATION
INTERNATIONAL DIVERSIFICATION

Source OECD (2015a)
BALANCE LOCAL DEVELOPMENT + INTERNATIONAL DIVERSIFICATION

Stock Market Cap vs. Pension Funds AUM

Market capitalization of listed domestic companies (% of GDP)

Pension funds (% of GDP)
CHILE – INTERNATIONAL DIVERSIFICATION

- Relaxing of the domestic investment requirement coincided with the increase in pension fund assets as a percentage of GDP

- Given the mandatory level of savings, pension assets were seen to be increasing beyond the capacity of domestic markets to absorb

- South Africa have linked overseas limits + capital flows

**Development of Investment Abroad vs. Investment Limits**

*Chile + Peru*

*Source: Supintendencia*
CONCLUSIONS
GOVERNANCE + INVESTMENT LINKED
CONCLUSION

• High interest rate environment in many developing economies is prevent diversification of pension assets into productive local investments

• Regulation can act as additional disincentive to move into longer term assets

• Regulatory/Supervisory authorities have a role to play
  • Create safe but supportive regulatory environment
  • Help create secure investment vehicles which allow pension funds to access domestic investment opportunities securely (i.e. with proper intermediation)
  • Systemically allow some international diversification based on local economy’s capacity to absorb pension assets
ESG

Incorporating ENVIRONMENTAL, SOCIAL and GOVERNANCE (ESG) Factors into FIXED INCOME INVESTMENT

George Indrati and Fiona Stewart
Main findings from academic research

Incorporating ESG factors does not mean sacrificing return

ESG factors are material credit risk

<table>
<thead>
<tr>
<th>Key Findings</th>
<th>Supporting research</th>
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<tr>
<td>1. Robinson (2018) observed that ESG factors of major impact vary across different time periods. ESG factors of impact on stock returns are often complex and multifaceted, and can be influenced by a variety of factors, including market conditions, regulatory changes, and company-specific events.</td>
<td>Robinson (2018) observed that ESG factors of major impact vary across different time periods. ESG factors of impact on stock returns are often complex and multifaceted, and can be influenced by a variety of factors, including market conditions, regulatory changes, and company-specific events.</td>
</tr>
<tr>
<td>2. Duration of ESG bonds</td>
<td>Supporting research</td>
</tr>
<tr>
<td>3. Complexes of emerging market debt investors</td>
<td>Supporting research</td>
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Incorporating ESG factors into investment decisions can provide a range of benefits, including improved risk-adjusted returns, lower volatility, and enhanced long-term performance. This can be achieved through a variety of strategies, including passive index investing, active management, and socially responsible investing. By considering these factors, investors can make more informed decisions and achieve better outcomes.
MAIN FINDINGS FROM ACADEMIC RESEARCH

• Many studies researching the empirical link between ESG and financial indicators

• Previously much research focused on equities (Dimson et al. 2013 summary)

• Recently more studies on fixed income published

• (Friede et al. 2015) – comprehensive study of 2,200 studies
  • 90% find non-negative relation between ESG and corporate financial performance
  • Bond studies (36) almost 2/3 positive 1/3 neutral or mixed
UN PRI (2017) SUMMARY

• Both academic and market research supports a clear link between ESG factors and credit risk.

• Most academic research is based on credit ratings to measure credit risk – very few papers use alternative measures (such as credit default swaps).

• Anecdotal observation of corporate defaults (particularly investment-grade) show strong G link – E + S harder to capture.

• Academic research linking ESG factors and sovereign credit worthiness less well supported – but is much evidence that ESG factors impact macroeconomic variables and potential growth – which in turn impact sovereign credit ratings.
QUALIFYING FACTORS

• Most ESG research use past data – may not hold in future

• May be (selection and other) biases in research

• Structure of economies and markets change over time, as do policies – investors need to make forward looking decisions

• Research on ESG in fixed income is still very limited – most focused on credit risks

• Still little analysis of ESG factors + market risks, inflation, liquidity and other risks/ opportunities

• Investors are advised to apply their own additional research and insights
LEADS TO 1ST MAJOR TREND…

ESG is increasingly incorporated into mainstream investment

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<th>Organizational embedding</th>
<th>Catching up</th>
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<tr>
<td>▪ ESG factors are increasingly considered by all analysts – not just separate ESG teams</td>
<td>▪ Fixed income is catching up fast with equity</td>
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Fixed income is catching up fast with equity.

- Corporate bonds
- Sovereign bonds
- ‘Other/real assets’

**BLACKROCK**

**TIAA**

**PGGM**

**WORLD BANK GROUP**

**GPIF**
2ND MAJOR TREND

ESG + Impact investing is starting to merge

- Discussion of credit rating agency research showing ESG impact on credit ratings
- Literature review of empirical studies on link between ESG and financial performance
  - Most research on equity, less on fixed income. Barclays research shows positive outcome on G, and neutral on E & S
- ESG and impact investing
  - Stress this is the leading edge for ESG integration
  - Define Impact investing as a positive approach which defines and measures specific impacts and outcomes
  - Discuss links to SDGs (e.g. PGGM)
2ND MAJOR TREND

Millennials & SDGs are driving factors

Investing for Millennials

Millenials want to have an impact: Different generations have dramatically different investment priorities.

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<th>Percentage of Respondents Who Agree</th>
<th>Millennials</th>
<th>Gen X</th>
<th>Baby Boomers</th>
<th>60+ years</th>
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<td>My investment decisions are a way to express my beliefs, political, or environmental values.</td>
<td>67%</td>
<td>44%</td>
<td>36%</td>
<td>34%</td>
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<td>It is possible to achieve market rate returns investing in companies based on their social or environmental impact.</td>
<td>74%</td>
<td>61%</td>
<td>58%</td>
<td>47%</td>
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Source: SSG U.S. Trust Insights on Wealth and Worth

Sustainable Investing

According to Morgan Stanley, millennials are putting their money in sustainable investments at a rate that is higher than average.

- 86% are "very interested" or "interested" in sustainable investing
- 61% have made at least one sustainable investment in the last year
- 75% think their investments can influence climate change
- 84% think their investments can help lift poverty

SDG impact indicators

A guide for investors and companies

World Bank Group

GPIF
Implementation tools / approaches

How is ESG implemented by fixed income investors?

- Labelled bonds
- ESG ‘Passive’ (via index)
- ESG ‘Active’ (mandate with specialist manager)
- ESG ‘Holistic’ (in-house integration across all asset classes)
How is ESG implemented by fixed income investors?

Example of PGGM: use more than one tool

1. Reduce carbon footprint by $\frac{1}{2}$
2. EUR 20bn impact investments by 2020
3. Integrated ESG into all portfolio analysis
3rd Major Trend

Standardization vs customization

- Methodologies can be used as tool or overlaid with investors own ‘philosophy’
Outstanding challenges

Despite evidence and will…. Still outstanding implementation challenges

- Data is improving (corporate reporting) + lots of innovative sources (satellite data/ AI)... BUT still lacking in smaller markets and rests on surprising small number of specialists

- Many different definitions of ESG (particularly S)... leads to many implementation strategies / methodologies

- Lack of investment instruments which meet needs/ intentions

### Breakdown ESG components

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<th>Institution</th>
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<td>Climate change and carbon emissions</td>
<td>Customer satisfaction</td>
<td>Board composition</td>
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<td>Air and water pollution</td>
<td>Data protection and privacy</td>
<td>Audit committee structure</td>
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<td>Biodiversity</td>
<td>Gender diversity</td>
<td>Bribery and corruption</td>
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<td>Political contributions</td>
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<td>Water scarcity</td>
<td>Labor standards</td>
<td>Whistleblower schemes</td>
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- Carbon emissions
- Labor management
- Corporate governance

- Energy efficiency
- Diversity and discrimination
- Business ethics

- Natural resource use
- Working conditions
- Anti-competitive practices

- Hazardous waste management
- Employee safety
- Corruption and instability

- Recycle material use
- Product safety
- Anti-bribery policy

- Clean technology
- Fair trade products
- Anti-money laundering policy

- Green buildings
- Advertising ethics
- Compensation disclosure

- Biodiversity programs
- Human rights policy
- Gender diversity of board

- Carbon intensity
- Demographics
- Institutional strength

- Water stress
- Education and human capital
- Corruption

- Energy resources and management
- Health levels
- Regime stability

- Natural disasters
- Political and press freedoms
- Rule of low

- Biocapacity and ecosystem quality
- Human rights
- Financial reporting

- Pollution
- Labor standards
- Regulatory effectiveness

- Biodiversity
- Social exclusion
- Adherence to conventions

- Agriculture
- Income inequality
- International relations
How Can World Bank work with GPIF to catalyze continued mainstreaming on ESG into Fixed Income Portfolios?

- **Product Development**
  - MDB labeled issuance
  - Innovative structured products

- **Frameworks**
  - IFC ESG methodology capital market instruments
  - Refining of green / sustainable bond principles

- **Data**
  - Transparency & Governance Toolkit for EM corporates
  - ESG satellite data sovereigns