

August 2016

Infrastructure financing: In the search for funding...but we are not alone

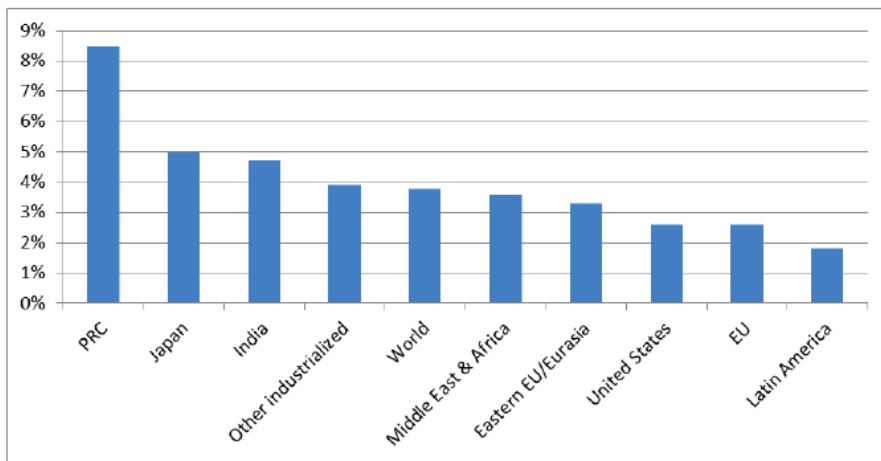
Munir Jalil
Senior Economist
Andean Region
munir.jalil@citi.com
+57 1 639 41 95

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Infrastructure Spending (1992-2011)

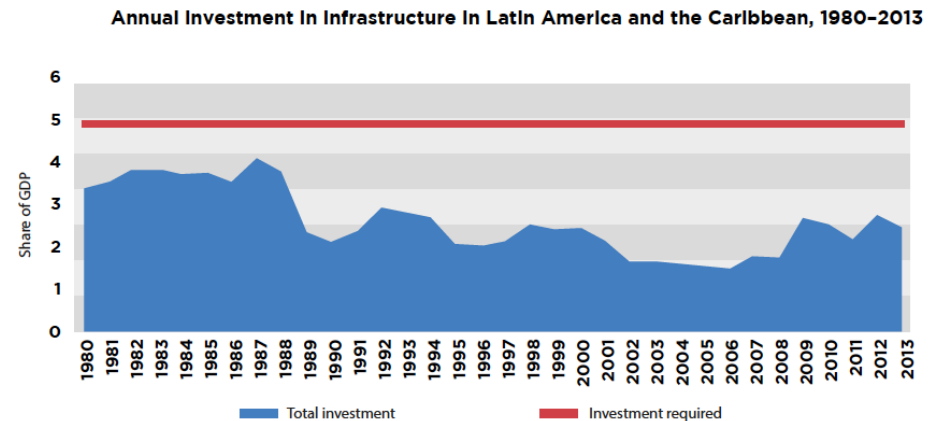
(% of GDP)



EU = European Union, GDP = gross domestic product, PRC = People's Republic of China.

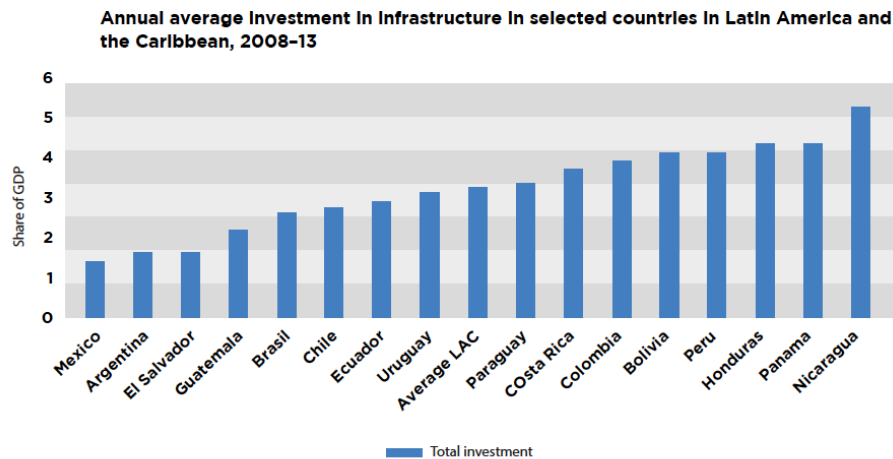
Source: McKinsey (2013).

Investment in infrastructure vs. Required investment (1980-2013)



Note: Figure includes data for Brazil, Chile, Colombia, Mexico, and Peru, the countries for which data are available from the 1980s.
Source: Data from CAF 2013, Calderón and Servén 2010, and ECLAC 2014.

With the region having different rates of investment rates



But needs for infrastructure investment are global: infrastructure investment needs to 2030

Water		1.3
Telecom		0.5
Transport		0.8
Road	0.3	
Rail	0.3	
Airports	0.2	
Ports	0.1	
Energy		1.5
Electricity transmission and distribution	0.2	
Electricity generation	0.7	
Other energy	0.4	
Oil and gas, transmission and distribution	0.2	
Total		4.1

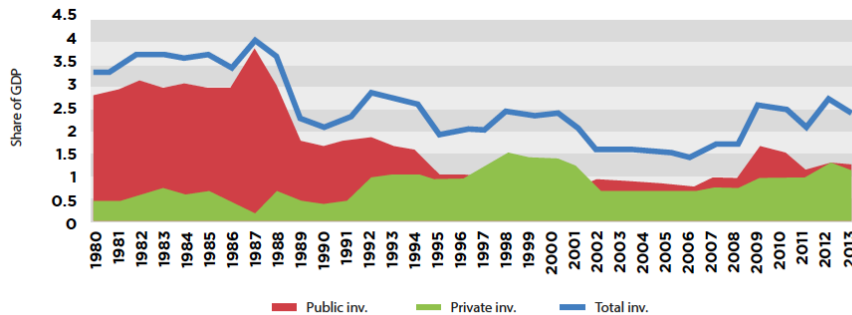
DP = gross domestic product.

ources: OECD (2006, 2007, 2012), WEF (2012), Inderst (2013).

Although the composition of investment has changed over time...

There is a clear dispersion among countries...

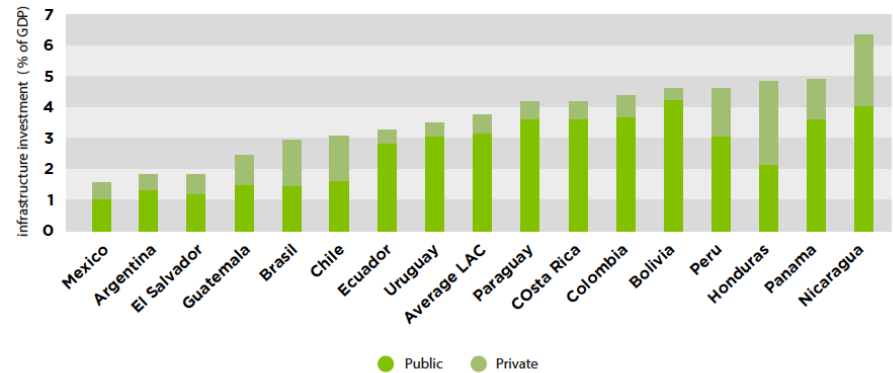
Annual public and private investment in Infrastructure in Latin America and the Caribbean, 1980–2013



Source: Data from CAF 2013, Calderón and Servén 2010, and ECLAC 2014.

Note: Figure shows investment by Brazil, Chile, Colombia, Mexico, and Peru, the only countries in the region for which data are available from the 1980s.

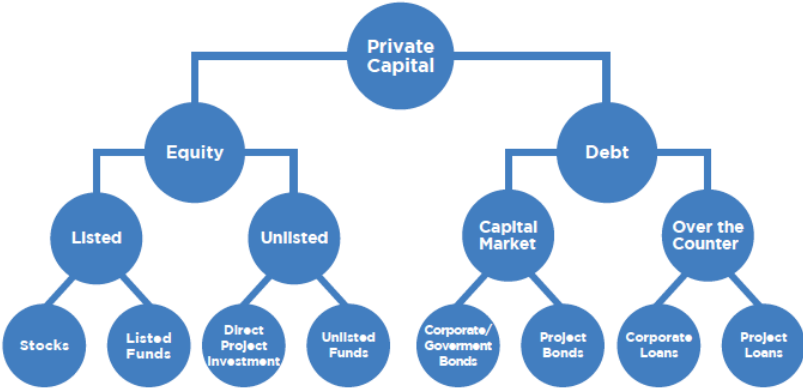
Average annual public and private investment in Infrastructure in Latin American and the Caribbean, by country, 2008–13



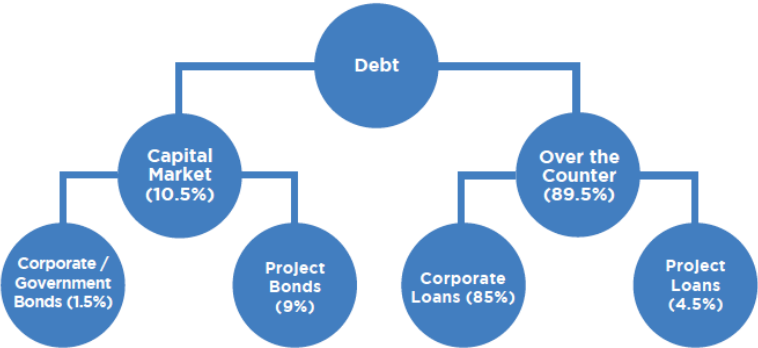
Source: Data from CAF 2013 and ECLAC 2014.

Types of private financing for infrastructure

Infrastructures's debt composition in Latin America



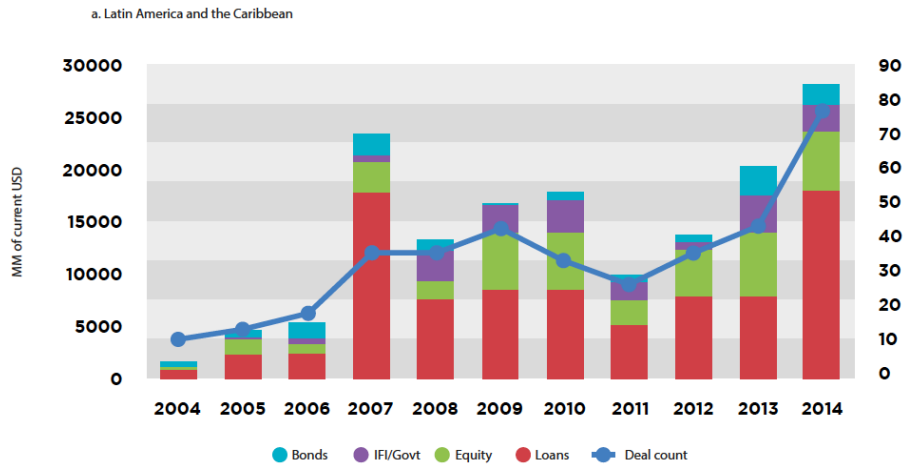
Source: Inderst 2013 and Inderst and Stewart 2014.



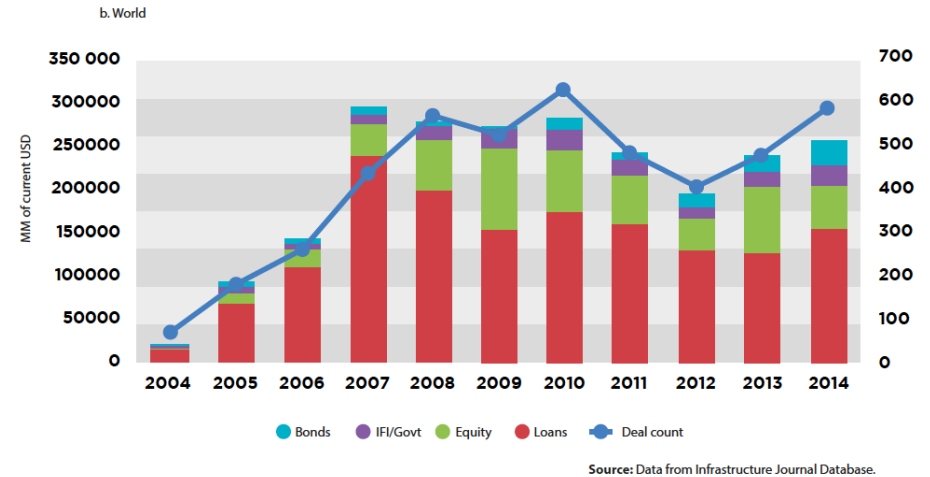
Source: Inderst 2013, Inderst and Stewart 2014, and data from the Infrastructure Journal Database.

Private financing of infrastructure by type of Instrument:

Latin America



World



Private suppliers of capital to Infrastructure projects In Latin America and the Caribbean

Ranking	Type of agent	Percent
1	Commercial bank	50.55
2	National or state bank	13.65
3	Developer or engineering procurement or construction firm	9.12
4	Private company	8.83
5	Multilateral development bank	7.34
6	Investment bank	3.28
7	Export credit agency	2.05
8	Investment or infrastructure fund	1.90
9	Government agency/public authority	1.88
10	Pension fund	1.11
11	Sovereign fund	0.24
12	Insurance company	0.04

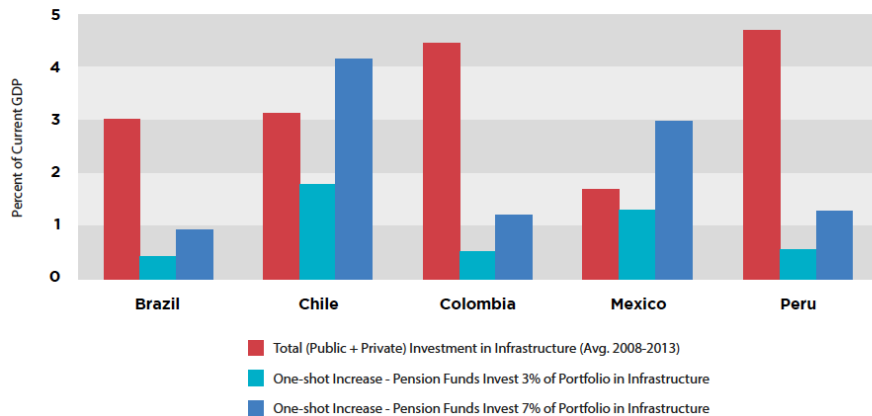
Note: Classification is one used by the Infrastructure Journal Database. Data cover 2005–14. Percentages are based on amounts.

Source: Data from Infrastructure Journal Database.

In theory PFs should put more of its AUM in infrastructure

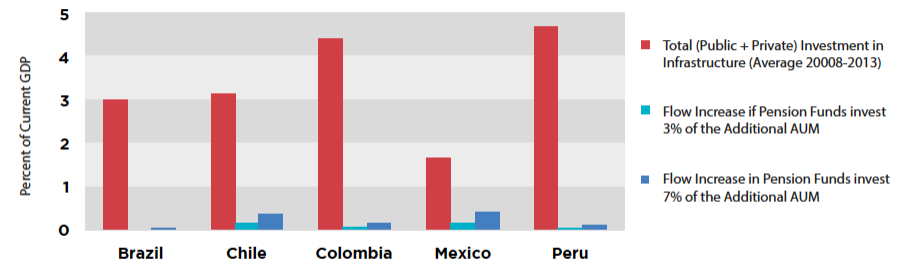
Same goes for other asset managers.

Effect of one-shot Increase in pension fund Investment in Infrastructure in selected countries in Latin America and the Caribbean



Source: Brazil: Superintendencia Nacional de Previdencia Complementar; Chile: Superintendencia de Pensiones; Colombia: Superintendencia Financiera de Colombia; Mexico: Comision Nacional del Sistema de Ahorro para el Retiro; Peru: Superintendencia de Banca, Seguros y AFP; total investment: IMF 2014.

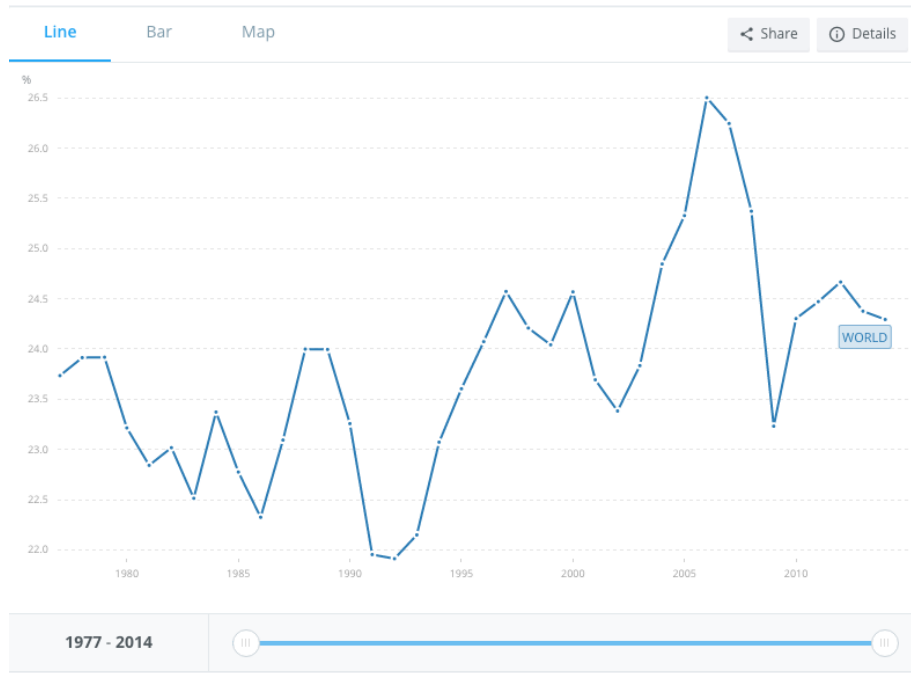
Effect of Increase in flows of additional assets under management to Investment in Infrastructure in selected countries in Latin America and the Caribbean



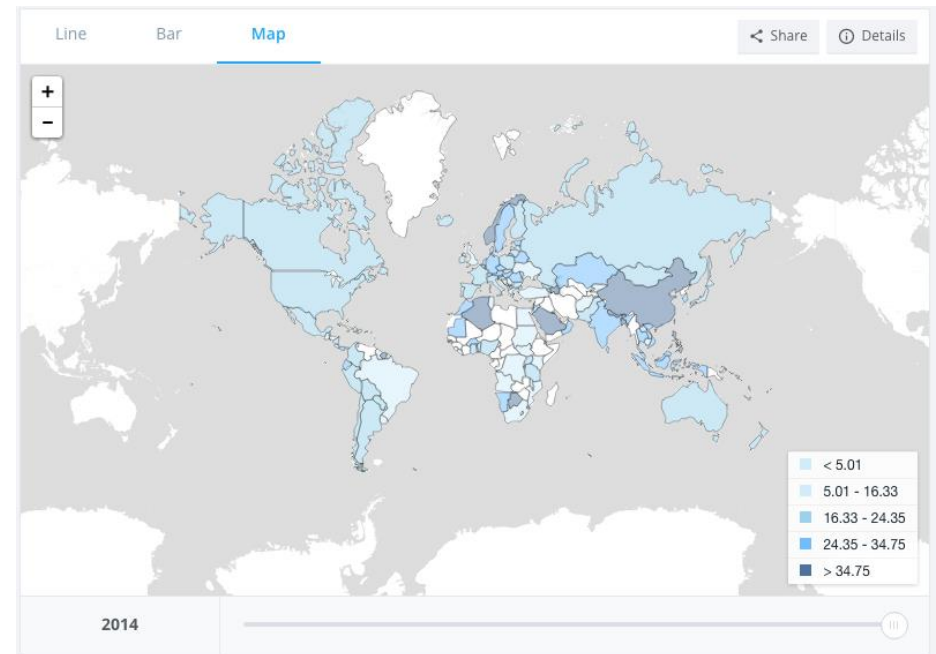
Source: Brazil: Superintendencia Nacional de Previdencia Complementar; Chile: Superintendencia de Pensiones; Colombia: Superintendencia Financiera de Colombia; Mexico: Comision Nacional del Sistema de Ahorro para el Retiro; Peru: Superintendencia de Banca, Seguros y AFP; total investment: IMF 2014.

More so when you look at saving rates around the world...

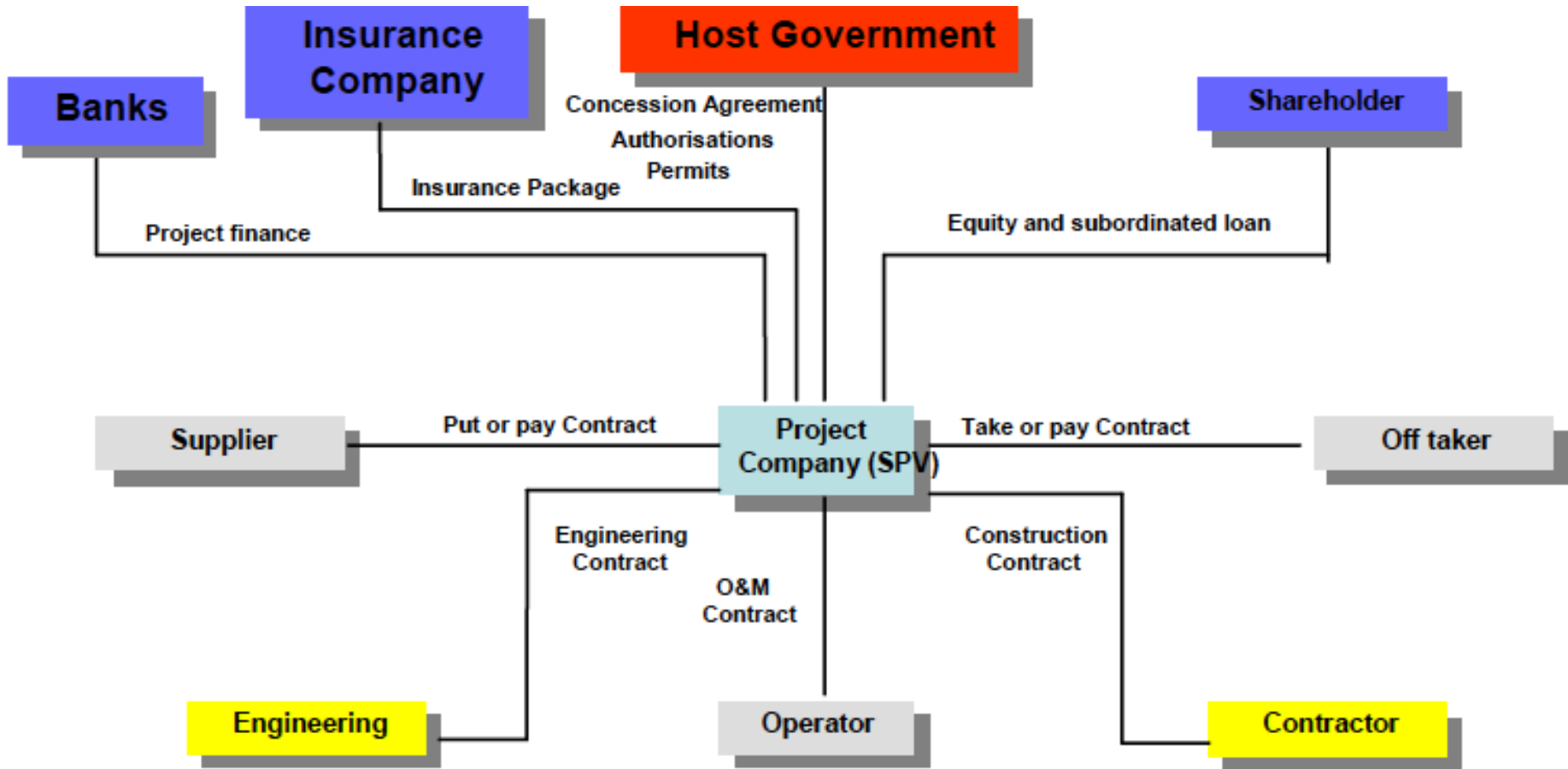
The world looks to be saving more... Global saving glut



Although most of that increase comes from countries not in LatAm



But how easy is to achieve that...



Source: OECD

So What are the main concerns for investors?

- Unstable regulatory settings/ political interference
- Financial intermediaries regulatory constraints.
- Accounting Standards
- A lack of historical information about infrastructure performance

IRS Circular 230 Disclosure: Citigroup Inc. and its affiliates do not provide tax or legal advice. Any discussion of tax matters in these materials (i) is not intended or written to be used, and cannot be used or relied upon, by you for the purpose of avoiding any tax penalties and (ii) may have been written in connection with the "promotion or marketing" of any transaction contemplated hereby ("Transaction"). Accordingly, you should seek advice based on your particular circumstances from an independent tax advisor.

Any terms set forth herein are intended for discussion purposes only and are subject to the final terms as set forth in separate definitive written agreements. This presentation is not a commitment to lend, syndicate a financing, underwrite or purchase securities, or commit capital nor does it obligate us to enter into such a commitment, nor are we acting as a fiduciary to you. By accepting this presentation, subject to applicable law or regulation, you agree to keep confidential the existence of and proposed terms for any Transaction.

Prior to entering into any Transaction, you should determine, without reliance upon us or our affiliates, the economic risks and merits (and independently determine that you are able to assume these risks) as well as the legal, tax and accounting characterizations and consequences of any such Transaction. In this regard, by accepting this presentation, you acknowledge that (a) we are not in the business of providing (and you are not relying on us for) legal, tax or accounting advice, (b) there may be legal, tax or accounting risks associated with any Transaction, (c) you should receive (and rely on) separate and qualified legal, tax and accounting advice and (d) you should apprise senior management in your organization as to such legal, tax and accounting advice (and any risks associated with any Transaction) and our disclaimer as to these matters. By acceptance of these materials, you and we hereby agree that from the commencement of discussions with respect to any Transaction, and notwithstanding any other provision in this presentation, we hereby confirm that no participant in any Transaction shall be limited from disclosing the U.S. tax treatment or U.S. tax structure of such Transaction.

We are required to obtain, verify and record certain information that identifies each entity that enters into a formal business relationship with us. We will ask for your complete name, street address, and taxpayer ID number. We may also request corporate formation documents, or other forms of identification, to verify information provided.

Any prices or levels contained herein are preliminary and indicative only and do not represent bids or offers. These indications are provided solely for your information and consideration, are subject to change at any time without notice and are not intended as a solicitation with respect to the purchase or sale of any instrument. The information contained in this presentation may include results of analyses from a quantitative model which represent potential future events that may or may not be realized, and is not a complete analysis of every material fact representing any product. Any estimates included herein constitute our judgment as of the date hereof and are subject to change without any notice. We and/or our affiliates may make a market in these instruments for our customers and for our own account. Accordingly, we may have a position in any such instrument at any time.

Although this material may contain publicly available information about Citi corporate bond research, fixed income strategy or economic and market analysis, Citi policy (i) prohibits employees from offering, directly or indirectly, a favorable or negative research opinion or offering to change an opinion as consideration or inducement for the receipt of business or for compensation; and (ii) prohibits analysts from being compensated for specific recommendations or views contained in research reports. So as to reduce the potential for conflicts of interest, as well as to reduce any appearance of conflicts of interest, Citi has enacted policies and procedures designed to limit communications between its investment banking and research personnel to specifically prescribed circumstances.

© 2016 Citigroup Global Markets Inc. Member SIPC. All rights reserved. Citi and Citi and Arc Design are trademarks and service marks of Citigroup Inc. or its affiliates and are used and registered throughout the world.