

PENSIONS FUNDS AND INFRASTRUCTURE in LATAM

Economic Research Department

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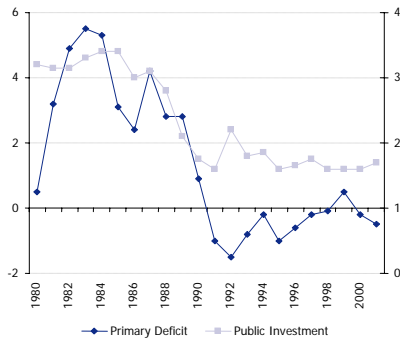
▪ Since the original Aschauer (1989a, 1989b, 1989c) papers, economic literature has found different correlations between infrastructure and economic growth.

▪ A recent BBVA study (Alonso et al, 2009) using a meta analysis exercise, has shown infrastructure - economic growth elasticity's between -0.62 & 0.53, with 0.10 being the most probable.

▪ "Law of diminishing returns" shows an infrastructure optimal accumulation path, which is different for each country (Canning & Pedroni, 1999).

▪ Empirical evidence in LATAM shows that the infrastructure effect on growth is positive.

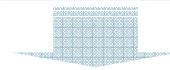
Primary Deficit in Public Investment in Infrastructures (% of GDP)



The fiscal consolidation in LATAM has been done by adjusting public investment in infrastructure

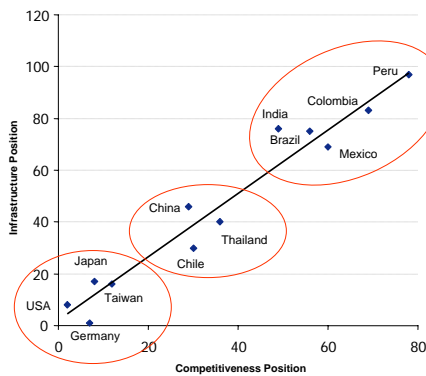
Public Investment's contraction has been partially offset by foreign direct investment

The economic crisis and the ending of privatization programs have reduced foreign capital contributions



Increasing infrastructure gap with regard to competitors

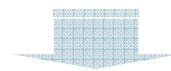
Relation between competitiveness and Infrastructures



The lack of infrastructure investment provokes competitiveness problems

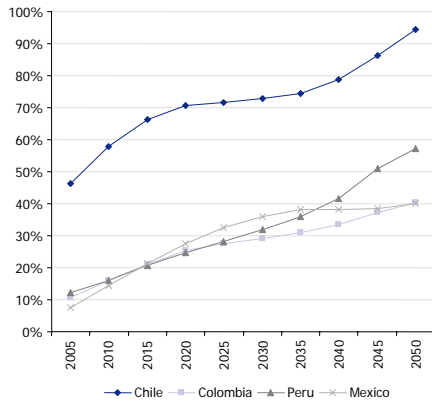
Official estimations calculate investment needs of 4% of annual GDP for the following years

But the international investment inflows have been reduced drastically



National Savings Needs

Accumulated Balance Projection of Private Pension Funds (% of GDP)



The private pension funds (PPF) can be an appropriate source of savings to partially cover these needs

PPFs will manage a large amount of resources in the next decades

Positive Factors of the investment in infrastructure assets for the PPF

- Assets invested in infrastructure allow optimal long-term portfolio planning (Inderst, 2009).
- We expect that Pension Fund participation in infrastructure investment will reduce political and regulatory risks. (Vives, 2000).
- The right design of long-term project finance investment offers a good relationship between return/risk.
- Pension Fund investments in the same country considerably reduce some financial risks, for example with exchange rate fluctuations.
- Public opinion could be more favorable of PPF management if they invest in infrastructure projects which improve the quality of life

Positive elements for the country with the pension funds financing infrastructure participation

- Consolidation of fiscal budget, by facilitating resources for other social expenses, or for reducing fiscal pressure.

- Improvements of the economic efficiency and efficacy in the budgetary process, by allocating the infrastructure costs to beneficiary/users.

- If the public budget is not able to execute the project because of cyclical problems, the private sector participation could compensate.

- Higher probability of quality improvements and cost reductions due to more transparency and efficient projects managed by the private sector.

HOWEVER, THE LAST INVESTMENT DECISION IN INFRASTRUCTURE ASSETS SHOULD BELONG TO THE PPF AS A RESULT OF A COMPREHENSIVE ANALYSIS OF THEIR OPTIMAL PORTFOLIO MANAGEMENT

Measuring the impact of infrastructure in Latinoamérica economic growth

-We observe difficulties to choose just one study that reports a trustworthy estimate of the elasticity of the infrastructure stock in its contribution to GDP growth.

-So, we use a meta-regression (which is a form of meta-analysis) specially designed to examine empirical research in economics (Stanley and Jarrell, 1989; Jarrell and Stanley, 1990)

-We have consulted 70 works that relate infrastructure with growth. Of those works, we have selected 13 that have sufficient available information in their models. The selected works have 130 alternative models which we have used in the meta-analysis.

Descriptive Statistics of the Elasticity

Variable	Observations	Average	Median	Typical Dev.	Minimum	Maximum
Elasticity	130	0.1004	0.0515	0.14496	-0.62	0.53
Weighted Average		0.1129				

Following Ashauer (1989a, 1989b, 1989c) Growth Accounting Model

$$Y_t = A_t(K_t)^\alpha(L_t)^\beta(G_t)^\chi$$

Where:

(Y_t) **GDP of year t** (A_t) **Residual of Solow** (G_t) **Expenditure in infrastructure**

(L_t) **Labor force** (K_t) **Accumulation of capital**

($\alpha < 1, \chi < 1, \beta < 1$) **Decreasing returns for each factor**

($\alpha + \beta + \chi = 1$) **Constant returns to scale for all factor as a hole**

the projection of the capital stock of infrastructure projects, we will use the permanent inventory methodology

$$K_t = sY_{t-1} + (1 - \delta)K_{t-1}$$

The dynamics of capital stock accumulation in infrastructure also adopts the permanent inventory model.

$$G_t = sY_{t-1} + AP_t + (1 - \delta)G_{t-1}$$

The labor force (L_t) considered in the projections is the same as the one used in the pension system projection models for Chile, Colombia, Mexico and Peru.

Based on the traditional specification in growth accounting in which TFP grows at an exogenous growth rate ($tcptf$), we describe the following equation:

$$PTF_t = PTF_{t-1}(1 + tcptf)$$

According to the model estimates, we will make the $tcptf$ variable from an exogenous growth rate (tce) from the non-explained part of the model plus the explanatory component of the rise in the infrastructure stock. (tcG_t):

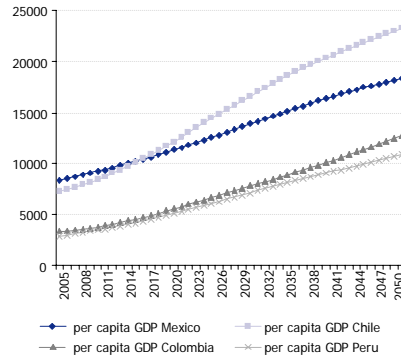
$$tcptf = tce + (0,014\% \times tcG_t)$$

Substituting, we have the TFP accumulation rule in our model.

$$PTF_t = PTF_{t-1}(1 + tce + (0.014\% * tcG_t))$$

Giving different values to the parameters of the model.

Per capita GDP Inertial version (in US\$)



Opportunity cost of not investing in infrastructure by PPF

	2020	2030	2040	2050	2005-2050
difference in % with present trend (GDP per capita)					Discount Present Value/GDP (2005)
dif en % Mexico	0,8%	1,0%	1,1%	1,1%	24,1%
dif en % Chile	1,8%	2,7%	3,2%	3,6%	89,3%
dif en % Colombia	0,9%	1,4%	1,8%	2,2%	49,1%
dif en % Peru	1,6%	2,3%	3,0%	3,6%	103,3%

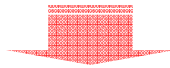
Fuente: SEE BBVA

THE PENSION FUND INDUSTRY IS HIGHLY INTERESTED ON FINDING NEW ASSETS TO DIVERSIFY THEIR PORTFOIL

INFRASTRUCTURE ASSETS ARE A GOOD MATCH FOR PENSION FUNDS BECAUSE THEY HAVE A LONG-TERM INVESTMENT HORIZON AND A GOOD PROFIT/RISK RELATIONSHIP

IT IS ALSO BENEFICIAL FOR THE ECONOMIC DEVELOPMENT OF THE RESPECTIVE COUNTRIES

HOWEVER, WE DON'T OBSERVE A GREAT AMOUNT OF DEVELOPMENT IN LATAM



WHY NOT?

**Infrastructure and
pension fund
Investment in Chile**

1. The Concession Law

2. Indirect Investment

3. Direct Investment

4. Assets and markets in infrastructure investment

5. The risk of catastrophe

The Public Infrastructure Contracts Law

Legislative Decree N°900 of the Public Infrastructure Ministry (1996) established a BOT (Built, Operate and Transfer) contract system. This legal framework governs public infrastructure bidding and structures the applicable contracts.

Important Aspects of the Legislation

- Imposes the organization of an open and competitive bidding process, thus Increasing efficiency and preventing corruption.
- Establishes a “special pledge for public infrastructure BOT contracts” that can pass the rights to the infrastructure related to the BOT contract. This protects creditors by providing them a guarantee.
- The law is flexible enough so that the BOT contract may be adapted to the specific needs of each project.
- In 2009, an amendment to the law established the guiding principle to be “the private company has the obligation to maintain the service and technical standards established in the contract”.

Weak aspects of the Legislation

- The bilateral renegotiation between the ministry and the private company awarded the contract is not sufficiently constraintive, as it does not guaranty competitive results, reduce adverse selection or encourage accountability.

The unambiguous respect for property rights in Chile has been a fundamental factor in the success of its public private partnerships.

The respect for property rights is related to the legal framework, but it is the institutional infrastructure that is the determining factor.

Indirect Investment of Pension Funds in the Infrastructure Sector

- Pension Funds invest in infrastructure by purchasing financial instruments, such as stocks or bonds, issued by companies.

Pension Funds Investment in Shares and Bonds of Chilean Infrastructure Companies						
At 29 May 2009						
	Shares		Bonds		Total	
	USD million	% Pension Funds	USD million	% Pension Funds	USD million	% Pension Funds
Electricity	5 485	5.90	2 133	2.29	7 618	8.19
Telecommunications	864	0.93	325	0.34	1 189	1.27
Gas and Water	329	0.36	833	0.85	1 162	1.21

Note of caution: Purchasing these types of financial instruments is not considered funding new projects that will increase or improve existing infrastructure, except when it is first issued.

Direct Investment of Pension Funds in Infrastructure

- Pension funds can only be invested in investment grade financial instruments.
- Thus, pension fund regulations prohibit investing in companies without a relevant history.
- Pension funds were initially prevented from taking part in funding infrastructure project with BOT contracts, because the project finance model is not compatible with the level of risk appropriate for pension funds investments.
- The infrastructure bond was created in 1998 at the request of the Finance and Infrastructure Ministries.
- Institutional investors are eligible to invest in infrastructure bonds.
- Infrastructure bonds are debt securities issued by companies awarded infrastructure BOT contracts. This kind of bonds has no pre-payment option and, in general, is 100% guaranteed by an international insurance company. This allows the issuer to achieve a higher rating by replacing the issuer's risk with the insurance company's risk.

Almost all infrastructure bonds were rated AAA at the time of the issue. The global financial crisis, however, affected some insurance companies, which then had a negative impact on the ratings of some infrastructure bonds.

The bonds have maintained their invested grades and ratings above those achieved by the insurance companies, because when assessing the capacity to pay the bonds, the issuer's risk rating prevails when it is higher than the guarantor's.

Direct Investment of Pension Funds in Infrastructure

Pension Funds Investment in Infrastructure Bonds

At May 2008

BOND NAME	Date of issue	M \$ USD	% issued amount
SOC. CONCESIONARIA RUTAS DEL PACIFICO	2002	155,143	33%
SOC. CONCESIONARIA AUTOPISTA DEL SOL	2002 & 2006	139,822	52%
SOC. CONCES. AUTOPISTA LOS LIBERTADORES	2003 & 2007	53,229	27%
SOC. CONCES. AUTOPISTA INTERPORTUARIA	2006	8,871	21%
AUTOPISTA DEL MAIPO SOC. CONCESIONARIA	2004 & 2006	212,851	43%
TALCA-CHILLÁN SOC. CONCESIONARIA	1998 & 2005	162,486	34%
RUTA DEL BOSQUE SOCIEDAD CONCESIONARIA	2001 & 2006	199,759	52%
RUTA DE LA ARAUCANIA SOC. CONCESIONARIA	2000	125,126	42%
SCL TERMINAL AEREO SANTIAGO S.A. SOC. CONCES.	2004	104,273	84%
SOC. CONCESIONARIA AUTOPISTA CENTRAL	2003	257,180	47%
SOC. CONCESIONARIA VESPUICIO NORTE EXPRESS S.A.	2004	301,906	45%
SOC. CONCESIONARIA COSTANERA NORTE	2003	155,317	39%
SOC. CONCESIONARIA AUTOPISTA VESPUICIO SUR S.A.	2004	80,651	39%
TOTAL		1,956,612	42%

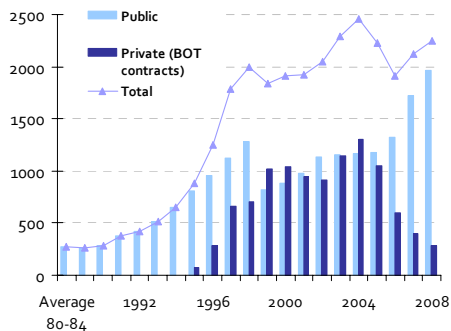
SOURCE: SUPERINTENDENCIA DE PENSIONES

Chilean pension funds held over 42% of the bonds issued as of May 2008 .

Direct Investment of Pension Funds in Infrastructure

Transport Infrastructure Investment

Million USD at 2008



SOURCE: Infraestructure Ministry of Chile

Investment has increased significantly since launching the infrastructure BOT contracts. Pension Funds provide financing to this type of investment as well.

- The recent earthquake (of magnitude 8.8 on the Richter scale) damaged roads, highways, ports and airports under BOT contracts.
- The infrastructure suffered severe damage that will have very high repair costs.
- Fortunately, the legislation accounted for the occurrence of catastrophes.
- The BOT legislation forced companies awarded contracts to purchase insurance contracts against natural disasters such as earthquakes.
- The State of Chile is the beneficiary of the insurance policy. The insurance can't have a deductible or a stop loss agreement and must cover the complete cost of replacing the damaged infrastructure.



Neither the country nor the infrastructure companies have to bear this cost.

The most efficient way to address the risk of catastrophe (high cost and low probability of occurrence) is through insurance.



Infrastructure and pension fund Investment in Colombia

1. The Concession Law
2. Indirect Investment
3. Direct Investment
4. Assets and markets in infrastructure investment
5. Role of the multilaterales in the country

1. Infrastructure investment started to become important in Colombia when the country began to open up in the early '90s
2. This process advanced the development of a concession program
3. The experience of the private sector in concessionary infrastructure projects has mainly focused on the development of roads.
4. The concession process has been a regulatory learning process. In turn, this regulatory framework tends to increase the transparency, economy and responsibility of the parties in question.
 - Improvements in terms of regulations
 - ✓ Bidding is a detailed public process in which all the administrative procedures must be carried out. The major features of the procedure are:
 - The Law allows Colombian and foreign individuals, corporations, consortia or temporary unions to participate in the bids

- In general, the bidding shall be made publicly (Law No. 1150 of 2007 makes some changes to Law No. 80 of 1993 with regard to efficiency and transparency)
- ✓ Design of a project:
 - Starts with a concession study by the allocating entity
 - The project must include a thorough analysis of: the investment, the costs that will be incurred, the property value, the place in which the work is being done, the procurement of environmental permits and the demand or transit flow analysis
 - Nevertheless, significant problems still exist, especially with regard to purchasing property, since in Colombia there is no expropriation law to make this process easier, which may delay construction.
 - All interpretations, amendments and unilateral termination clauses must be included in the contracts which carry out any activities that constitutes a state monopoly.
 - There should be a reversal clause

- ✓ operation process:
 - While Colombian legislation does not established time limits for concession maturation, they cannot, however, be established for an unlimited term.

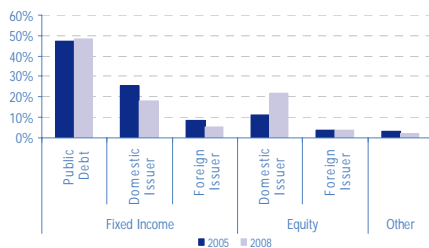
✓ Risk and allocation guarantee policy:

○ Risks that are taken into account are:

- Building, operation and maintenance risk (assumed by the concessionaire)
- Risk of greater required investments (INVIAS designs the guarantee mechanism so that the concessionaire does not assume the whole risk).
- Commercial risk (there is the minimum income guarantee).
- Environmental risk (assumed by the concessionaire)
- Financial risk¹ (there are guarantees in terms of inflation by means of gradually increasing rates, the extension of the operation term or by means of contributions from the national budget).

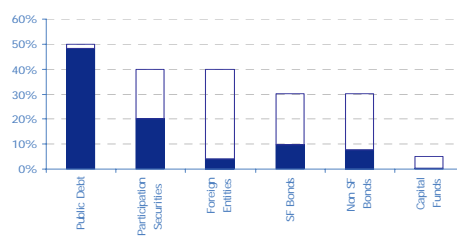
While there has been a strong commitment to developing infrastructure so far, further advancements and major clarifications are still required.

Composition of portfolio: Compulsory Pension Funds



Source: Financial Superintendencia of Colombia

Observed Investments and Limit (December 2008)



1. High concentrations of the same types of public debt securities: In recent years, such investments have represented about 50% of their total portfolios.
2. That percentage corresponds to the upper limit allowed for this type of investment.
3. Many other kinds of instruments reach their investment upper limits, which indicates that the offering is one of the greatest limitations to diversifying PFAs' portfolios.

Can be done through 3 different instruments:

1. Private equity funds
 - o Limited to 5% of total portfolio
 - o Investment policy clear and previously defined
 - o Managers with at least five years of experience
2. Stocks
 - o Limited to 40% of total portfolio
3. Debt instruments
 - o Limited to 40% of total portfolio (upper limit of 10% for securities issued by the same co., 30% for securities issued in the series)

The rating plays an important role in determining PFA participation for 2 and 3 .

Percentage of PFA's stocks from initial public offerings as a Percentage of Total Stocks

	ISA		Ecopetrol	ISAGEN
	2001	2007	2007	2007
Share	29%	63%	32%	80%

Source: Alarcón (2008)

Indirect participation:

. Interconexión Eléctrica (ISA): electric energy and telecommunications services markets (PFAs are the majority shareholders).

. Ecopetrol Colombian Company: oil and gas

. ISAGEN: electric energy, natural gas network, coal, steam and other energy resources for industrial use.

Indirect Infrastructure Investment of CPFs (% of Total Portfolio)

	(% Portafolio Total)					
	jun-08			dic-08		
	Debt	Equity	Total	Debt	Equity	Total
Water	0,7%	0,0%	0,7%	0,4%	0,0%	0,4%
Communications	0,8%	0,2%	1,0%	0,8%	0,2%	1,0%
Electric	3,1%	4,7%	7,7%	4,2%	3,4%	7,6%
Energy	0,6%	8,3%	8,9%	0,6%	6,5%	7,0%
Mortgage securitization	0,2%	0,0%	0,2%	0,3%	0,0%	0,3%
Roads	0,9%	0,0%	0,9%	0,8%	0,1%	0,8%
Total	6,3%	13,1%	19,4%	7,0%	10,1%	17,1%

Fuente: ASOFONDOS

1. Increased indirect investment due to different types of new securities in the market.

2004: 0.45% of Total Portfolio (COP 115 billion)

2008: June 19.4% of total portfolio, December 17.1%

2. Greater weight of stocks in comparison to debt securities.
3. The sectors with the greatest participation are the electric and energy sectors, which reached 7.6% and 7% of the total investments at the end of 2008, respectively.

1. Direct Investment in infrastructure by PFAs does not exist In Colombia .
2. Characteristics of contracts and securities for infrastructure projects still needed (Asofondos 2009):
 - o The performance of studies before bidding and development of projects has not been emphasized enough.
 - o Searching for economies of scale in order to avoid fragmentation.
 - o Contracts should correspond to twenty year periods or more, which is similar to the characteristics of capital market securities (today 10-15 years).
 - o In the case of road concessions, tolls should be considered a source of income (project financing must not be done with short term banking capital or with capital from tolls).
 - o Incentives rewarding self-financing capacity and performance experience must be created: to avoid adding new project stages (that must be clear from the beginning of the bidding process), re-negotiation must only be allowed in very extreme cases. At the same time, quality regulation must demand progressive fines for breaches before the expiration date, plus a strict legal, financial and technical structure.

1. In association with the Andean Development Corporation (CAF) and the IADB, the Chilean national government recently created an Infrastructure Fund.
2. These institutions contribute their expertise towards implementing best practices in the country. CAF, for example, is now in 18 countries.
3. Additionally, the fund will be managed by Ashmore, a professional international manager with a long history of experience in the field. This represents a comparative advantage in the sense that it will allow international practices to be imported to the Colombian market. The local company Inverlink will contribute its knowledge of the Colombian market.

Anexe

1. Standard framework:

- The 1991 Constitution allowed greater participation from the private sector
- Law No. 80 (1993): General contract law of the public administration
- Law No. 90 (1993): Determines environmental requirements which must be fulfilled by infrastructure projects.
- Law No. 448 (1998): Adopts pertinent measures to manage contingent liabilities by the Nation, territorial entities and decentralized entities of any nature.
- Law No. 1150 (2007): Requirements for extensions and additional provisions in contracts are established, which must be approved by the CONPES (National Council of Economic and Social Policy).

From this general legal framework, the conditions and characteristics of the contracts varied according to the evolution of the infrastructure projects. A large part of these projects has been determined by the CONPES through decrees subsequent to the standards established at the beginning of the nineties.

Infrastructure and pension fund Investment in Mexico

1. The Concession Law**2. Indirect Investment****3. Direct Investment****4. Assets and markets in infrastructure pension funds investments****5. Role of the multilaterales in the country****1) The Concessions Law**Advantages

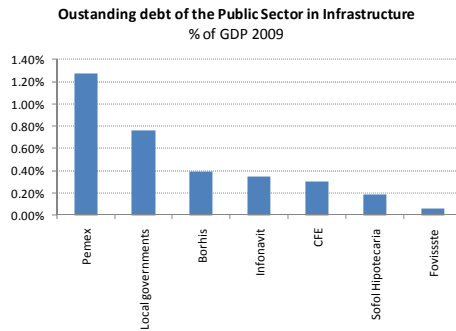
1. A stable legal framework.
2. Broad scope of participation for the private sector with a few economic sectors reserved to the State (Energy)
3. Competitive and transparent procedures for the selection of a concessionaire (public auction as a general rule with limited exceptions allowing direct negotiations)
4. Low risk of expropriation

Disadvantages

1. A fragmented legal body among different economic sectors, levels of government and agencies in the central government.
2. Public-Private Partnerships are not part of the Concessions Law. In November 2009 a bill was sent to Congress to provide an ad hoc regulation.
3. Contracting authorities are generally subject to regulatory restrictions limiting their ability to agree on the extent of risk allocated between parties.
4. State and local budgetary laws do not entitle the contracting authority to make long-term commitments.

2) Indirect Investment in Infrastructure

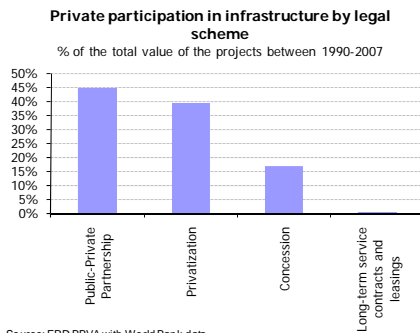
The Public Sector has historically been the main investor in infrastructure, allowing the private sector to finance public works through debt instruments



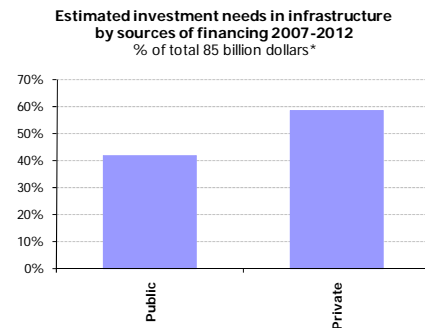
3) Direct Investment in Infrastructure

Due to fiscal constraints, the private sector has played a more important role as a direct investor and partner to the public sector since 1990.

This trend should continue in the near future.



Source: ERD BBVA with World Bank data



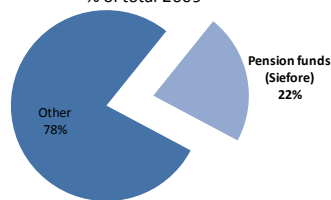
*Excludes Energy Sector
Source: ERD BBVA with *Programa Nacional de Infraestructura 2007-2012* data

4) Pension fund investment in Infrastructure

Due to its investment regime, the Afore System has mainly supported indirect investments in infrastructure.

In 2009, however, direct investments in infrastructure were allowed in the Afore System through structured notes.

Outstanding debt of the Public Sector in Infrastructure by sources of financing
% of total 2009



Source: ERD BBVA with CONSAR data

Investment in infrastructure through structured notes
% of total portfolio

Pension Fund	Up to January 2010	Maximum exposure allowed
SB1	0	-
SB2	0.7	5.0
SB3	1.5	10.0
SB4	1.6	10.0
SB5	1.5	10.0
System	1.2	

Source: ERD BBVA with CONSAR data

5) Multilateral Organizations have a significant role to play in infrastructure development in Mexico

Advisory services (technical, financial and legal in Project Finance)

- ✓ Most of the states and local governments in Mexico lack the human resources to develop a Project Finance model

Structured finance

- ✓ Helping infrastructure projects to obtain bank credit in alliance with FONADIN through credit enhancement structures for bonds and loans through partial credit guarantees, risk sharing facilities, and participation in securitizations

Hedging products

- ✓ Extending long-term risk management products for hedging purposes (interest rate and currency exposure)

Guarantees and insurance products

- ✓ Risk of expropriation in Mexico is low, however, projects may suffer losses arising from the government's repudiation of a contract and /or the lack of effective adjustment mechanisms for changes in public prices

**Infrastructure and
pension fund
Investment in Peru**

1. The Concession Law
2. Indirect Investment
3. Direct Investment
4. Assets and markets in infrastructure investment
5. The role of multilaterals in infrastructure

1) The Concession Law

An appropriate legal framework is an indispensable element to promoting greater investment in infrastructure projects

-By Legislative Decree No.1012 issued on May 13, 2008, the **Framework Law on Public-Private Partnerships** for the generation of productive employment was approved and the norms for expediting the process of promoting private investment were declared.

-There are, however, some **weaknesses** in the infrastructure investment system. The most important are the **bureaucratic holds in the concession process**. Other obstacles include: failures in the concession contracts, social risk, an inadequate framework for setting rates and inapt supervision.

Sample: Six concession processes

Project	Infrastructure	Type	Duration
Olmos	Water diversion	Co-Financed	89
Red Vial 5	Road	Self-sustainable	59
Red Vial 6	Road	Self-sustainable	90
Lima Airport	Airport	Self-sustainable	29
North IRRSA	Road	Co-Financed	58
Emfapa Tumbes	Sanitation	Co-Financed	59

Source: Report Infrastructure projects, Pavel Firm, 2009
Elaborated by: ERD BBVA

Delays in the concession processes affect the length of the project. In a sample of six projects, the average duration is more than five years.

2) Indirect Investment

This investment represents most of the amount invested by PFAs in infrastructure (approximately 77.4%, or USD 2,413 million, of the total USD 3,117 million)

Indirect investment is related to two different sorts of transactions:

1. **Purchases of bonds or debt instruments issued by companies related to those who participate in infrastructure projects** (this represents 95% of the indirect investments by PFAs). It is worth mentioning that investments in these companies are not necessarily directed towards investment in infrastructure development.
2. **Purchase of participation bonds from infrastructure investment funds:**
 - a. **SAFI AC Capitals Funds:** Investment in this fund has grown significantly over the last few years from USD 12 millions at the end of 2005 to USD 100 millions in December 2008.
 - b. **Infrastructure fund:** At the beginning of 2009, Peru's Government authorized the establishment of an infrastructure investment fund with an estimated USD500 million of total capital. PFAs will contribute USD 300 million, making them the main funding source.
 - c. **Infrastructure investment fund trust:** In June 2009, the PFA Association formalized the creation of an Infrastructure Investment Trust (USD 300 million) by the four PFAs of the Peruvian Private Pension System.

3) Direct Investment

Direct investment reflects the purchase of debt instruments or bonds issued by concession companies of infrastructure projects

PFA: Participation in main infrastructure projects June 2009

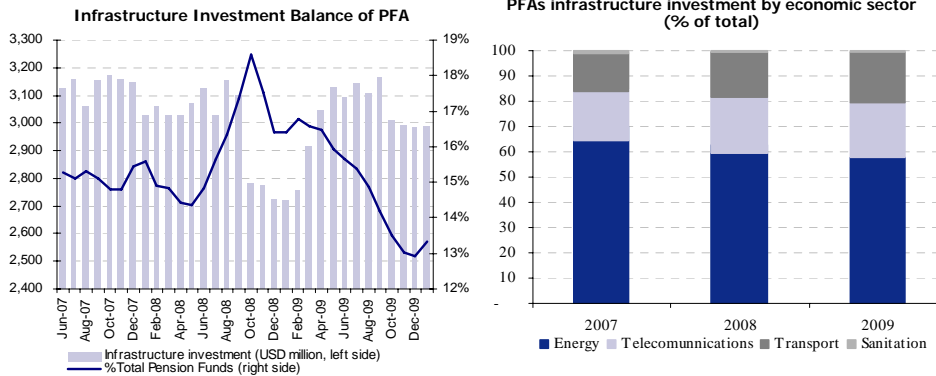
Company	Sector	Invested amount June 2009 (USD mill.)	Total% Investment in infrastructure
Peru Enhanced Pass Through	Infrastructure	342	11.0%
Transportadora de Gas del Perú	Energy and Petroleum	136	4.4%
Pluspetrol Camisea	Energy and Petroleum	91	2.9%
Concesión Transvase Olmos	Water and Sanitation	63	2.0%
Red de Energía del Perú	Energy and Petroleum	58	1.9%
Consorcio Agua Azul	Water and Sanitation	11	0.3%
Consorcio Transmuntaro	Energy and Petroleum	1	0.03%

Source: Superintendency of Banking, Insurance and Pension Funds, June 2009
Elaborated by: ERD BBVA

Direct investment in infrastructure reached USD 700 million or 22.6% of the total amount invested in infrastructure

4) Investment in Infrastructure

In January 2010, PFA participation in infrastructure projects represented 13.3% of their portfolios



Source: Superintendency of Banking, Insurance and Pension Funds

Source: Superintendency of Banking, Insurance and Pension Funds

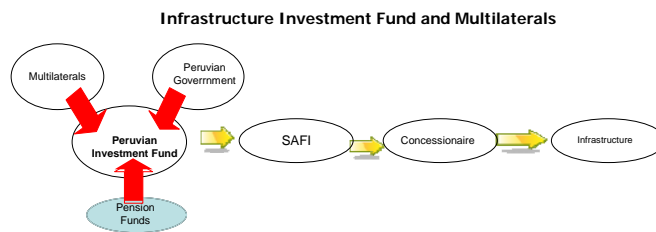
The greatest concentration of investments have been in companies in the energy and petroleum sectors (more than 50%)

5) The role of multilateral in infrastructure

The role of multilateral organizations in financing and supporting infrastructure development in Peru is extremely important

-At the beginning of 2009, multilateral organizations, the Inter-American Development Bank (IDB) and the Corporación Andina de Fomento (Andean Development Corporation) invested USD 100 million in the Infrastructure investment fund launched by the Peruvian Government.

-The Peruvian Infrastructure Fund is part of the coordination of activities, which the Peruvian government agreed to implement with the IDB and the CAF in the Memorandum of Understanding - signed March 31, 2009 - on structuring mechanisms to facilitate private sector participation in the financing of infrastructure projects.



Source: Ministry of Economy and Finance and BBVA

Summary: The current investment situation in infrastructures

	Indirect Investment		Direct Investment		Limit investment in direct infrastructure
	USD\$ millions	% portfolio	USD\$ millions	% portfolio	% of portfolio
Chile	9969 (1)	9,17%	1956	1,80%	without specific limit
Colombia	4431 (3)	17,10%	0	0	without specific limit
Mexico	5535	6,90%	0	0	10,7 (2)
Peru	2416	11,50%	700,2	3,3%	without specific limit

Source: SEE BBVA. Datos a septiembre de 2009

(1) (electricity, water, telecommunications)

(2) weight average by each Stiefore investment

(3) December 2008