



Infrastructure investment and Pension funds in Latin America

Pensions and Insurance America & Economic Research Department

OECD/IOPS/RBA Global Forum on Private Pensions

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Latin America has pioneered structural pension reform

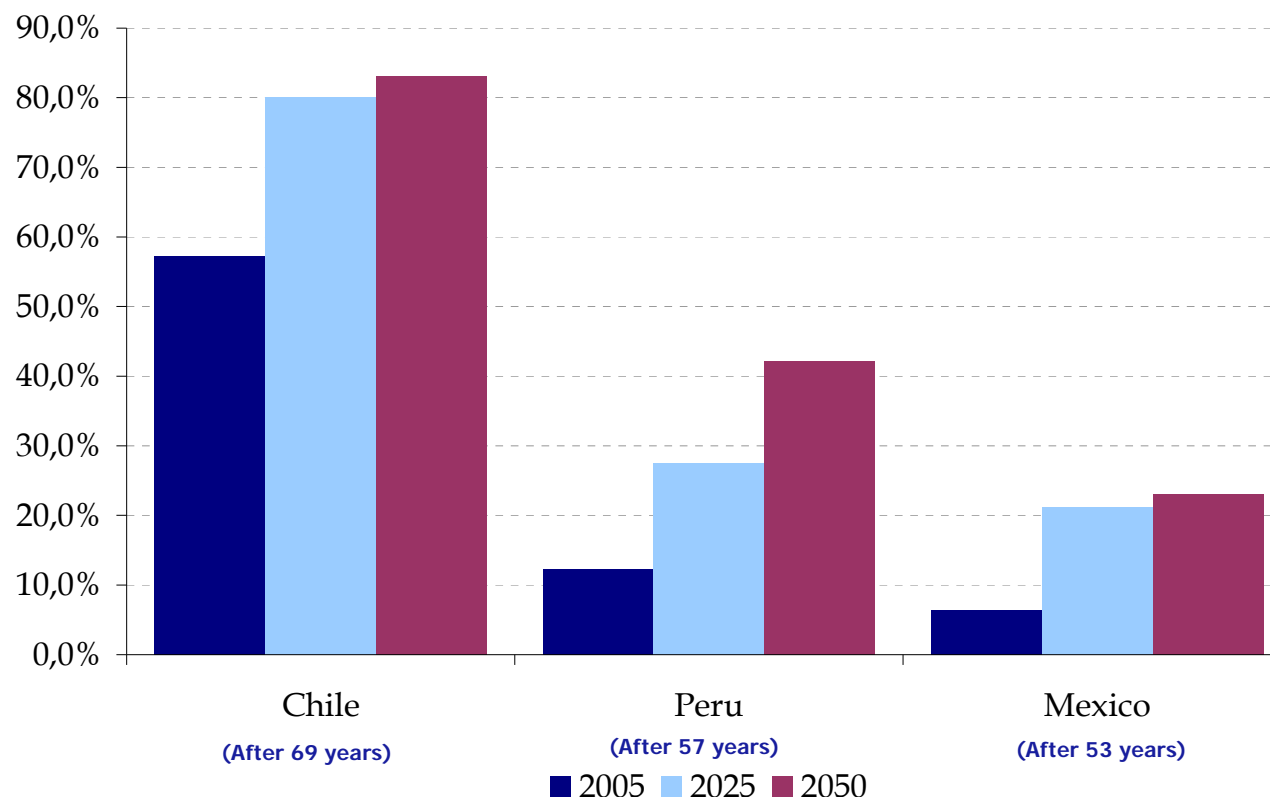
	System	Contribution	Benefit	Regime	Administration
Structural reforms					
Sustitutive					
Chile, May 1981					
Bolivia, May 1997	Private	DC	Not defined	Individual account	Private
Mexico, Sep 1997					
El Salvador, May 1998					
Dominican Rep, 2003					
Nicaragua, Postponed					
Parallel					
Peru, June 1993	Public /	Not defined /	DB /	PAYG /	Public /
Colombia, April 1994	Private	DC	Not defined	Individual	Private
Mixed					
Argentina, July 1994					
Uruguay, April 1996	Public +	Not defined +	DB +	PAYG +	Public /
Costa Rica, May 2001	Private	DC	Not defined /	Individual	Multiple
Ecuador, Postponed					

Source: Mesa-Lago (2004)

During the 80s and 90s, many Latin American economies introduced DC individual capital accounts, although with significant differences and on-going reforms (Mesa-Lago, 2004).

Available projections foresee a notable accumulation of financial resources in pension funds

Projected pension fund over GDP in Chile, Mexico and Peru, 2005-2050



Source: BBVA (2006, 2007 and 2008)

Based on reasonable assumptions on socio-demographic, macroeconomic and institutional issues, pensions funds as a percentage of GDP would increase between 12 and 25 p.p. (BBVA 2006, 2007, 2008).

An increasing role of the pension industry in financing infrastructure is a 'win-win' situation

Pension funds offer:

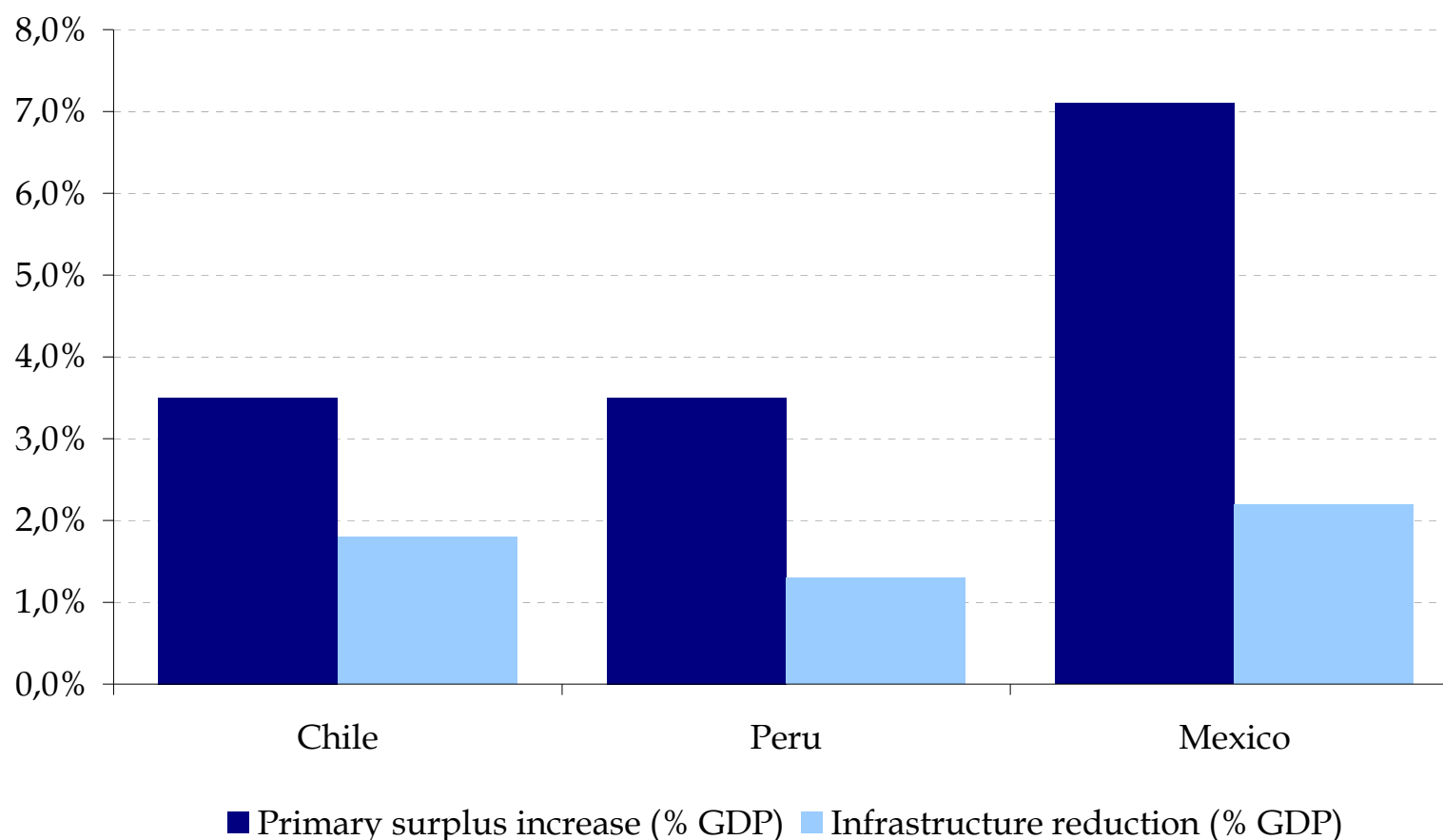
- **Long-term financing**, especially in the early stages of the demographic transition.
- **Domestic financing**, crucial when capital markets in local currency are not developed.

Infrastructure investments offer (Vives, 1999, IPE, 2007):

- **Higher real returns** than the average pension fund portfolio.
- **Diversification**, given that their returns are less than perfectly correlated with the existing portfolio.
- **Higher potential growth**, raising not only returns but also contributions.
- **Social legitimacy** ('your pensions built this road and this road finances your pensions', Chile).

Latin America has based partially the successful fiscal consolidation in reductions of infrastructure investment...

Fiscal consolidation and infrastructure fall, 1990-00 vs 1981-85

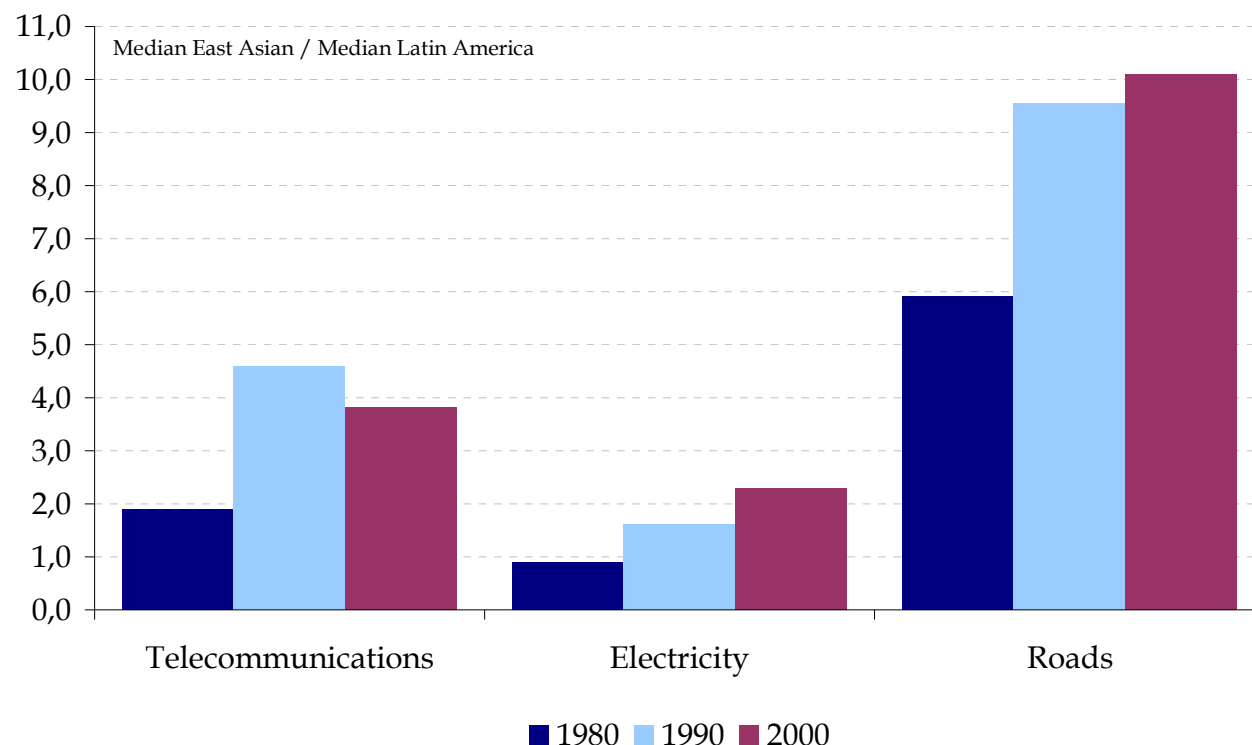


Source: Calderón and Servén (2003)

In absence of crowding-in, this policy will be costly in the long-term.

... explaining a Latin American significant 'infrastructure gap' with respect to competing emerging economies

Infrastructure gap East Asia - Latin America



The infrastructure gap (energy, water, telecommunications, roads) may be at the root of low potential growth and high inequality (Calderón and Servén, 2003).

Main and mobile lines, Power generating capacity and Roads and paved roads length
Source: Calderón and Servén (2003)

**What lessons can be drawn from the Latin America experience?
A focus on Chile, Mexico and Peru.**

OUTLINE

1. Infrastructure investment: basics

Ways of investing in infrastructure

Potential constraints

2. Some Latin American lessons

Economy-wide requirements: dos

Pension regulation: dos and don'ts

On the benefits of gradualism

3. (1st and) Second generation pension reform

Ways of investing in infrastructure (OECD, 2008)

- (1) **Primary vs. secondary market**, depending on whether investment finances the start-up phase.
- (2) **Equity vs. debt finance**: investors may seek some equity participation or buy infrastructure bonds.
- (3) Listed vs. unlisted companies.
- (4) Direct vs. indirect investment.
- (5) General partners vs. limited partners.
- (6) Listed vs. unlisted funds.
- (7) **Domestic vs. international**, due to preferences and/or regulatory constraints.
- (8) Single sector vs. multi-sector.

Despite being natural counterparts and the mutual benefits, the way to strengthen pension funds-infrastructure association is not straightforward.

Potential constraints**(1) General**

- (1) Lack of confidence in long-term investment (low governance).
- (2) Infra-development of basic infrastructure concession mechanisms.
- (3) Lack of adequate financial instruments (structured products with recurrent income flows and solvency standards).

(2) Pension regulation

- (1) Prohibitions (e.g. direct participation in infrastructures), quantitative restrictions (instruments and/or issuers) and rules on liquidity, valuation and ratings.
- (2) Performance regulation (minimum returns).
- (3) Switching of affiliates between fund administrators.

(3) Technical

- (1) Risk#1: a higher participation in domestic infrastructures may raise the sovereign risk of the portfolio (due to investments abroad limits).
- (2) Risk#2: pension funds may be already investing indirectly in infrastructure firms.

A general-equilibrium approach to identify what binds is needed.

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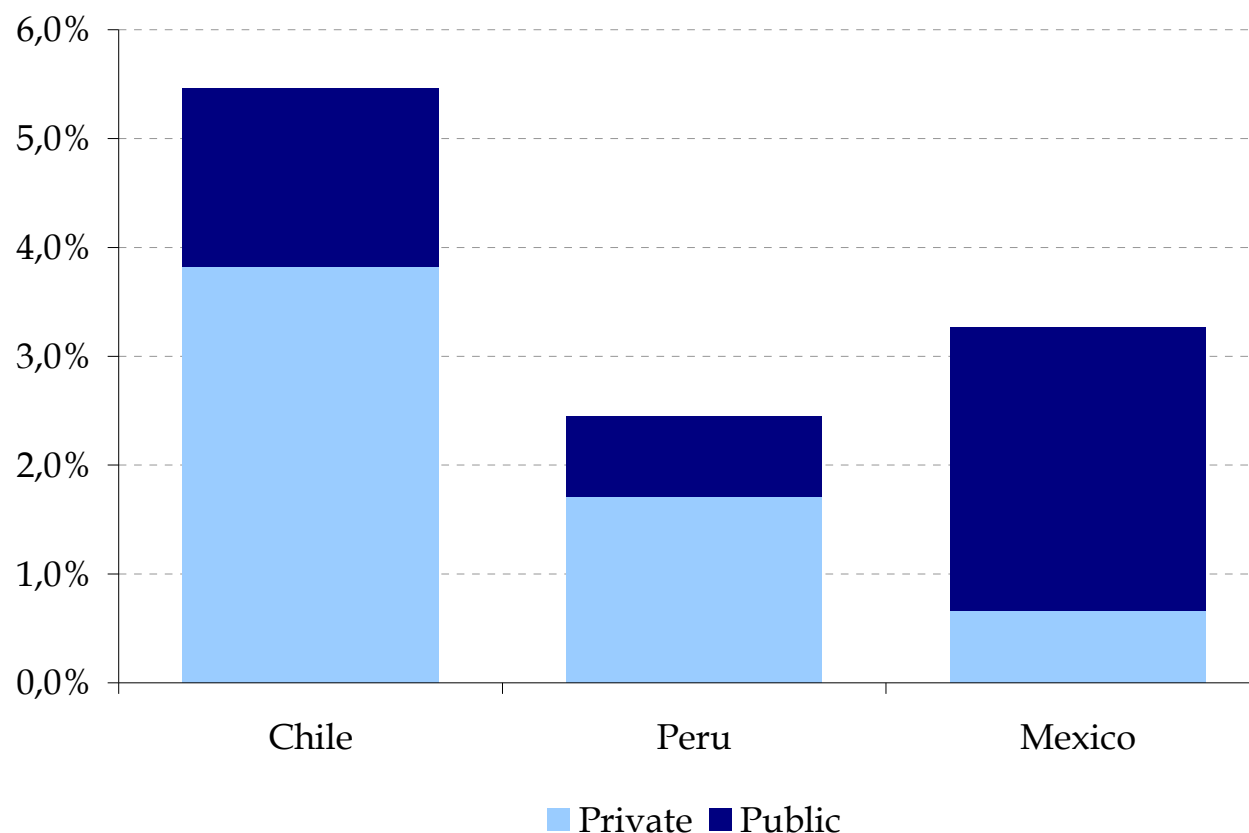
Pension regulation: dos and don'ts

On the benefits of gradualism

3. (1st and) Second generation pension reform

Focusing on three cases: Chile, Mexico and Peru

Infrastructure investment over GDP in Chile, Mexico and Peru, around 2000

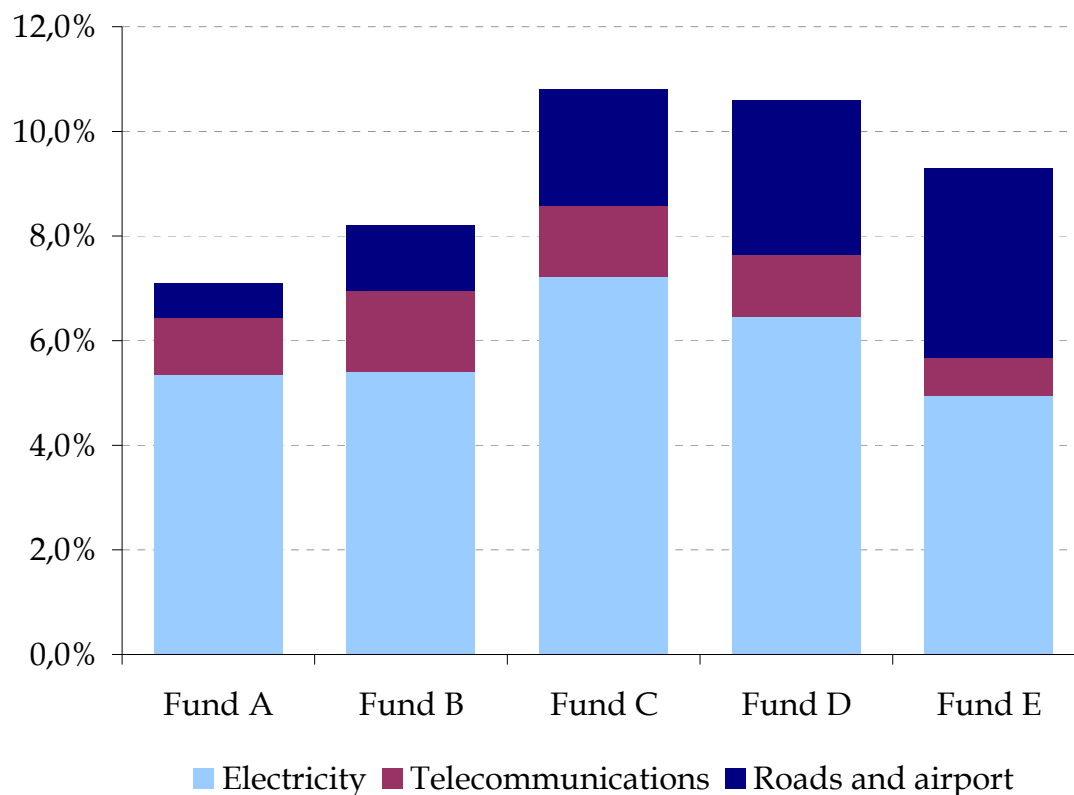


Source: World Bank, official sources and BBVA

The role of the private sector in financing infrastructures is significant in Latin America, but at very low levels (except in Chile).

Focusing on three cases: Chile, Mexico and Peru

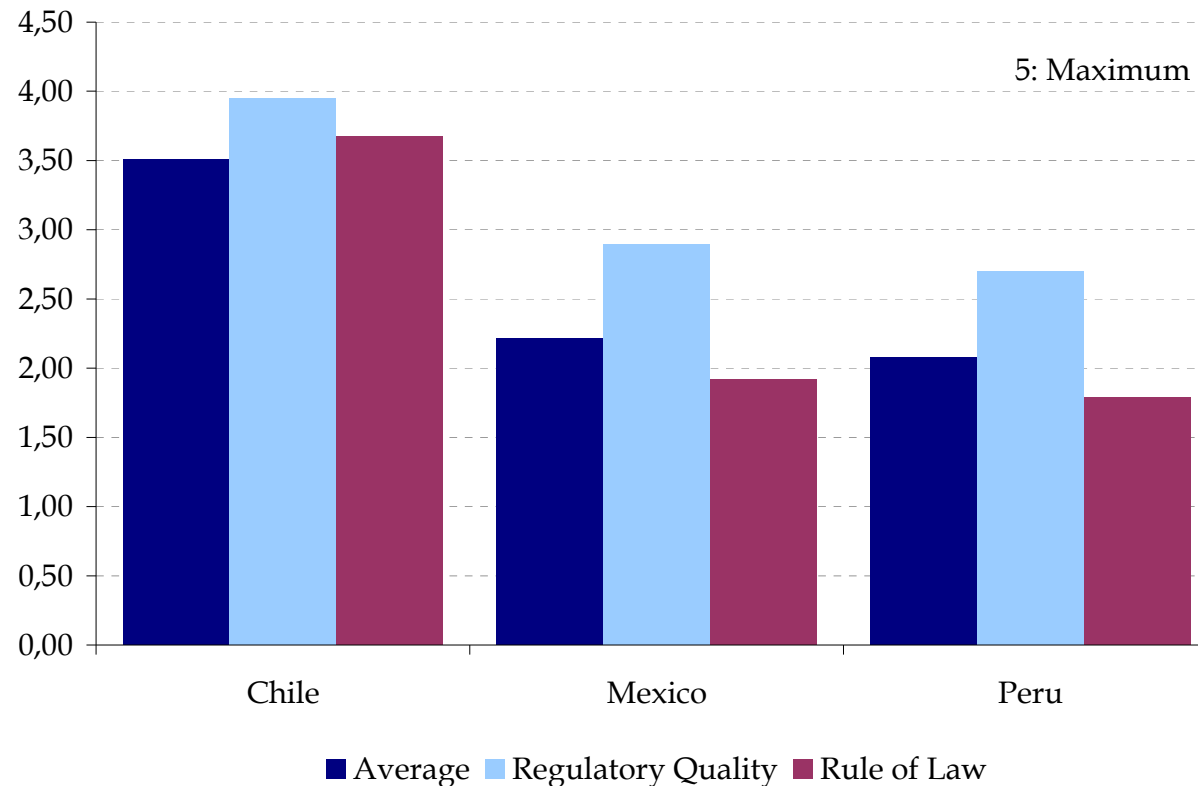
Pension funds investment in infrastructure investment in Chile, 2008



Warning: lack of
good comparable
data

Source: SAFP

Pension funds in Mexico invest just around 1% of their portfolio in infrastructure firms vs. 2% in Peru and over 9% in Chile (6% in energy).

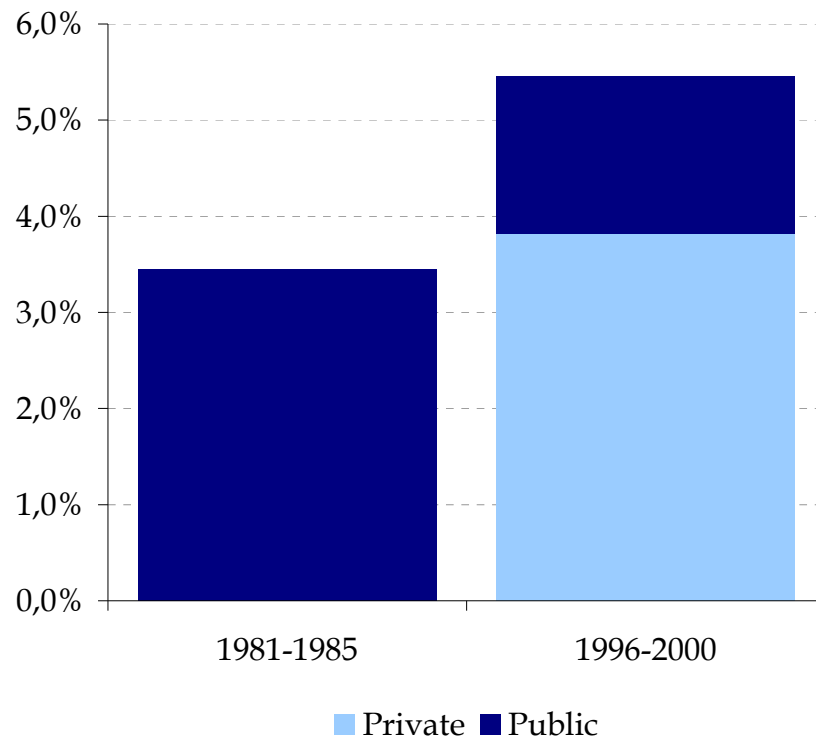
Economy-wide requirements: dos**Governance indicators in Chile, Mexico and Peru 2007**

Source: World Bank

Pension systems work properly if the economy works fine (markets and institutions). This is especially the case in long-term projects, as infrastructures.

Economy-wide requirements: dos

Infrastructure investment over GDP in Chile



Source: World Bank

- (1) **1982.** (Almost) any public works can be under concession (Organic Law MOP, not applied).
- (2) **1991.** Tender procedures are structured, as well as the contractual system for public-private-partnerships (Law n.19.068).
- (3) **1993.** First tender (*El Melón Tunnel*), and additional legislative progress (Law n. 19.252).
- (4) **1996.** Further reforms covering: tender regime, concession contracts and period, and third-party funders protection (Law 19.460).
- (5) **1998.** Creation of the Infrastructure bond.
- (6) **2008.** Concession cancelled due to bad-practice (maintenance and security, *Camino de la Madera* road).

The (long) Chilean experience in infrastructure public-private-partnerships and infrastructure concession legislation explains part of the success.

Pension regulation: dos and don'ts

Pension administrators investment in Infrastructure Bonds in Chile		
May 30, 2008		
Bond	M \$US	% total ammount
Soc. Concesionaria Rutas Del Pacífico	155.143	33%
Soc. Concesionaria Autopista Del Sol	139.822	52%
Soc. Conces. Autopista Los Libertadores	53.229	27%
Soc. Conces. Autopista Interportuaria	8.871	21%
Soc. Conces. Melipilla S.A.	0	0
Autopista Del Maipo Soc. Concesionaria	212.851	43%
Talca-Chillán Soc. Concesionaria	162.486	34%
Ruta Del Bosque Sociedad Concesionaria	199.759	52%
Ruta De La Araucanía Soc. Concesionaria	125.126	42%
Scl Terminal Aereo Santiago S.A. Soc. Conces.	104.273	84%
Soc. Concesionaria Autopista Central	257.180	47%
Soc. Concesionaria Vespucio Norte Express S.A.	301.906	45%
Soc. Concesionaria Costanera Norte	155.317	39%
Soc. Concesionaria Autopista Vespucio Sur S.A.	80.651	39%
TOTAL	1.956.612	42%

Some of the 'regulations that hinder' can be overcome with suitable financial instruments and markets: Chilean infrastructure bond.
Still, some challenges remain.

Examples**(1) Chile**

- (1) On February 1998, Chile placed the first concession under the present value of minimum income mechanism: road Santiago-Viña del Mar. Currently AFPs hold M.US\$ 155,143 in bonds of the concessionary (Rutas del Pacífico).
- (2) On 1998 after negotiations and delays, the first bid for the urban highway Costanera Norte failed due to higher projected costs for environmental reasons. On 1999, the bid was performed successfully, after the government established additional guarantees.

(2) Mexico

- (1) On June 2008, five Siefors used for the first time Structured Notes in a private capital placement performed by Agropecuaria Santa Genoveva.
- (2) A fragmented regulation and double taxation constrain the development of Real Estate Investment Trusts.

(3) Peru

- (1) Successful experiences of *greenfield* projects financing: Trasvase Olmos (water treatment), IIRSA North and South roads (the South America initiative for regional infrastructure integration) and Transportadora de Gas del Perú (gas transportation). All of them had government warranties and were highly accepted by pension fund asset managers.
- (2) Investment and promotion agencies had been working on a third road (Central IIRSA). Government is not offering guarantees, so the concession process may fail.

Dos and don'ts**(1) Chile**

- (1) Good governance, concession schemes experience and suitable financial instruments (infrastructure bond).
- (2) Challenges: inefficiencies in the concession system, treatment of switchers, observed herd-behaviour, and (still) some financial products needed.

(2) Mexico

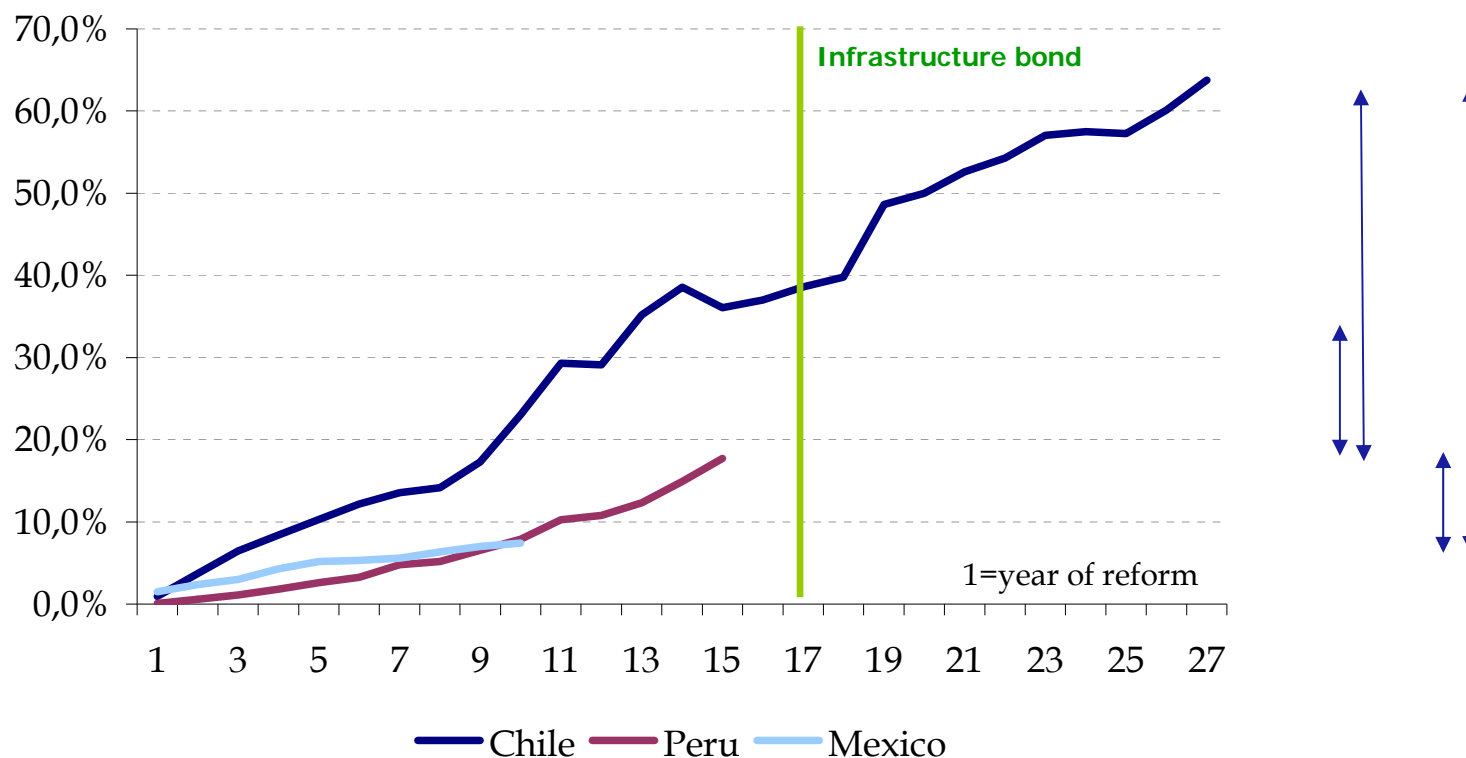
- (1) Gradual pension regulation progress, allowing indirect investment in infrastructure (bonds and ABS; *greenfield* investments are banned).
- (2) Regulation limits the supply of infrastructure projects (private sector cannot participate in the energy sector by Constitution).
- (3) Fragmented regulatory framework (decentralization), and Political vs. budgetary cycles.

(3) Peru

- (1) Pension regulation progress (2001 reform), and (occasional) government support.
- (2) Delays and inefficiencies in concession contracts.
- (3) Under-development of financial markets: lack of adequate instruments, plus high exposure to sovereign risk.

On the benefits of gradualism and country-specific approaches

Pension fund over GDP in Chile, Mexico and Peru



Source: National supervisors and BBVA

Portfolio regulation should evolve gradually, in line with the other pension and economic institutions ('one-size-fits-all' nor 'leapfrogging' seem optimal, Melguizo and Vial, 2008). Capital markets are key.

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Reforms should not be limited to portfolios

- (1) **Coverage.** Mandatory and/or opt-out schemes for independents and informal workers.
- (2) **Solidarity pillar.** Relaxation of eligibility criteria vs. (dis)incentives.
- (3) **Contribution rates.** Evaluation of rates and taxable income.
- (4) **Disability and survivors benefits.** DB vs. DC benefits, and administrative control.
- (5) **Competition, fees and financial knowledge.**

BBVA

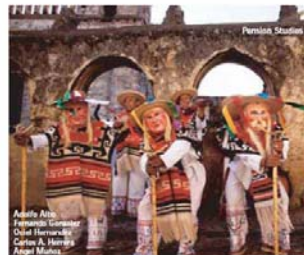
A 25 Años
de la Reforma del Sistema
Previsional Chileno.

Evaluación y propuestas de ajuste

Matilde Flores
Angel Muñoz
Cristóbal Vald

BBVA

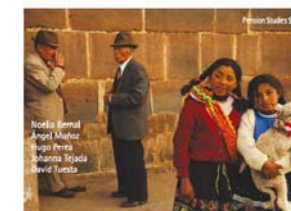
Toward the Strengthening of the
Pension Systems in Mexico:
Vision and Reform Proposals



BBVA

A look at the Peruvian
Pension System

Diagnosis and Proposals



The on-going Chilean pension reform follows a general equilibrium approach. After all, the goal is to promote “adequate, affordable, sustainable and robust pensions” (Holzmann and Hinz, 2005).

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References

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