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# Pension fund's experience investing in infrastructure

Session 1: Long term investing: market practice, regulation and supervision

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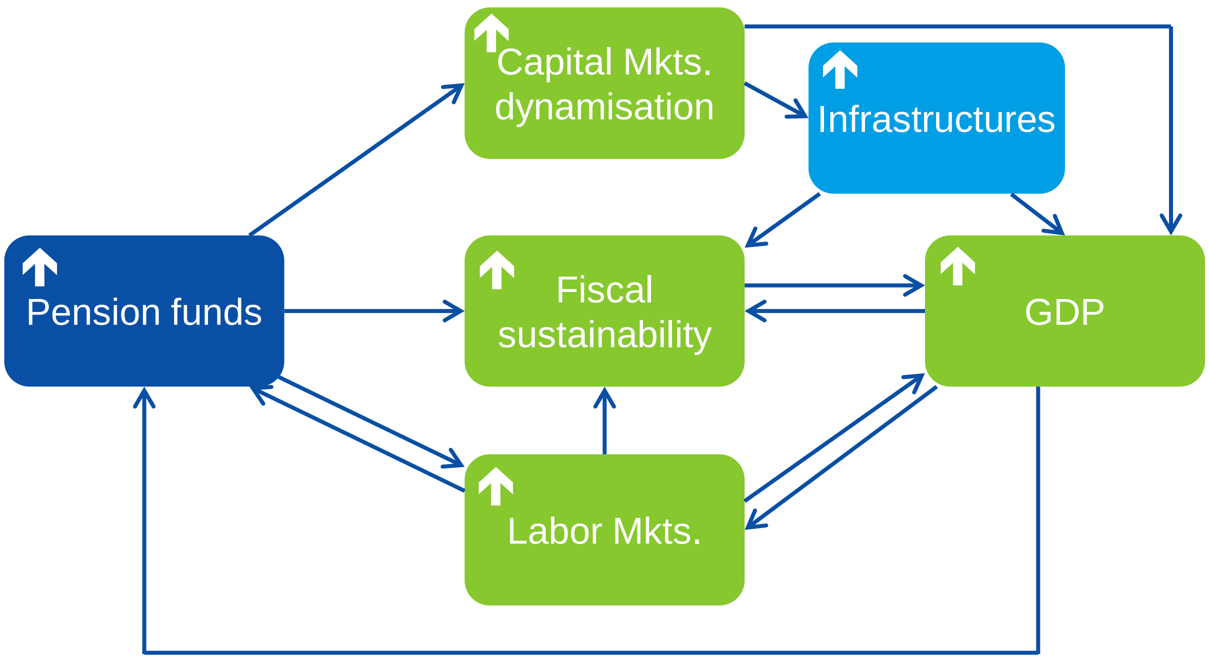
# Outline

# The rational to invest in infrastructure projects

**PF and Infrastructure: the theoretical virtuous circle**

Fuente: BBVA Research




- It is possible to see a virtuous circle among pension's goals and other economic policy targets.
- Obviously there are different conditional factors that likely affect the impact of some of theses pieces. For instance:
  - Infrastructure-Growth multipliers
  - Quality of infrastructure and the Financial SPV: efficient frontier.
  - Regulatory institutional aspects

**Some reasons:**

**Pensions**: Improve portfolio performance. Increase portfolio size. Better pensions

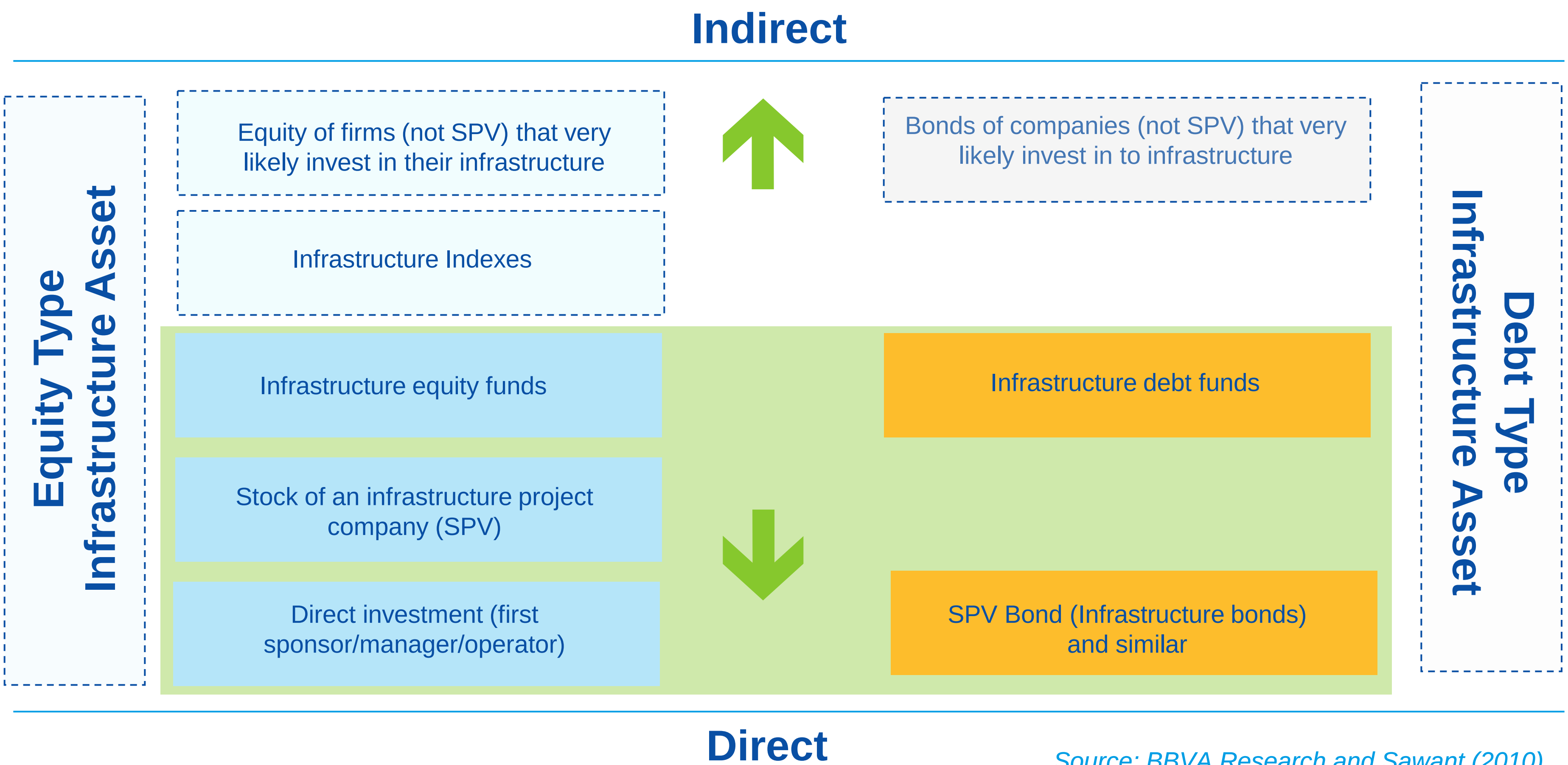
**The economy**: an economic policy focus. Also a global concern after financial crisis

**Infrastructures**: a key element for growth and likely key for pensions

# Current trends increasing global interest of pension funds and infrastructure investments

- Financial crisis, public deficits and risks imposed on public pension funds
- The consequently increasing importance of private pension funds
- Demographic and financial risks (very low return scenario) for pensions and the need to improve their performance
- The need for growth and employment from a economic policy perspective
- Infrastructure gap, specially in emerging economies. Only in LatAm it is estimated infrastructure needs of US$ 170 billions per year (or 260 billions per year in the next 20 years if we want to match the level in South East Asia). LatAm's pension funds manage around US$ 1 trillion.
- Financial markets functioning.
- Strengthening ties between pension companies and civil society, specially in the case of some Latin American mandatory private pension funds

# Approaches to infrastructure investments




*Source: BBVA Research and Sawant (2010)*

# Outline

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## Pension fund's financial regime and the rational behind investing in infrastructure

Section 2
## A global focus

Section 3
## A Latin American focus

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## What to take into account?

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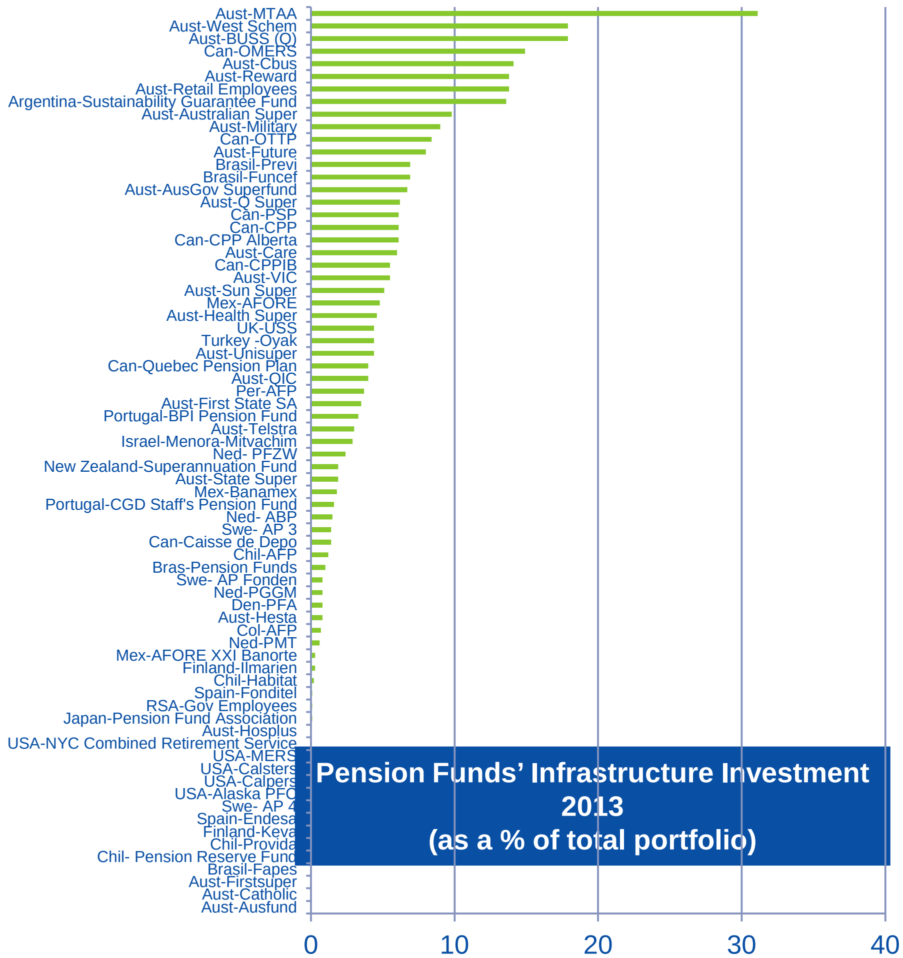
# How much are PFs investing in direct infrastructure?




- Sample of 72 pension funds and 21 countries (data 2010 -2013)
- Investing in infrastructure: from 0% to 31 % of total PF's Portfolio:
  - Average sample: 4,3% of portfolio
  - Average of those investing: 5,4% of portfolio
- Australian and Canadian pesion funds are those investing more in infrastructure:
  - Australian PF average: 7,5% of portfolio
  - Australian PF currently investing: 8,6% of portfolio
  - Canadian PF average-sample: 6,6% of portfolio
  - Canadian PF currently investing: 6,6%

Source: Inderst (2014), OECD (2014), Tuesta (2013), OECD (2012), Weber and Alfen (2010), Torrance (2008), Future Fund Board (2011), Infrastructure Partnerships Australia (2010), Mcquire (2010),

# The Australian approach to infrastructure investment

## Key factors contributing to Australias's infrastructure investment and pensions

- Triggered by large-scale infrastructure privatizations in early 90s and the introduction of a compulsory occupational pension system in 1992, good economic/financial performance, demographics, trustee system (transparency)
- Infrastructure continue to a top issue in the political agenda to modernize its infrastructure. Infrastructure Finance Project Group: Working on clearer projects pipeline
- DC scheme. Despite be a young pension DC system, Australia has 5 pension funds in the Top 100 (US$500 bill.)
- A very open financial regime

## Some key elements of the Australian Model

- In the 90s, infrastructure investment outsourced to external fund managers and at the same time development expertise in packaging infrastructures assets listed vehicles
- Since the early 2000s they took  the route to invest in unlisted open-ended infrastructure funds
- It is sustained that this strategy helped pension funds to save fees with respect to the previous schemes and other private equity-type strategies (Europe, USA)
- Key: government predictability with infrastructure planning, development of expertise of pension funds and high level of governance

# The Canadian approach to infrastructure investment

## Key factors contributing to Canada's infrastructure investment and pensions

- Canada infrastructure is mainly built and maintained with public money so there was not an internal trigger effect from domestic infrastructures
- The main driver appears to be pension funds individual initiatives to invest in infrastructure as a diversifying strategy beyond the traditional asset class
- A very mature DB pension plan. Facing some solvency problems as many DB in the world. In spite of this, regulators allow PFs investing in infrastructure for their liability-driven investing to cover long-term liabilities
- Some pension plans were early inverstors in infrastructures in the 90s thanks its open-flexible financial regime

## Some key elements of the Canadian Model

- Direct investments from the beginning, gaining in lower fees, diminishing agency issues with fund managers, taking direct control over assets
- Key:
  - (i) strong governance model based on independent and professional boards;
  - (ii) strong and sophisticated internal team (rarely outsource this function);
  - (iii) large-scale projects
- Pesion Funds invest 80% in infrastructure investment allocated outside Canada

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# Some lessons and some caveats from both models

- Different triggers: Big Bang privatizations and compulsory DC in Australia. Mature DB and PF eagerness to invest in this assets. Substantial infrastructure investments are possible in different pension systems and different motivations
- Listed or unlisted and/or direct management of the projects
- Domestic infrastructure, international infrastructure
- Infrastructure scale seems to be important for pension funds
- Institutional elements of the country is clearly key
- Build experience
- Risks are always there,  inclusive in this high developed economies with their pension fund industries. Some Canadian plans admit that their own estimate of time and other inputs were too optimistic in the outset (Inderst, 2014)
- Performance data are still surprising poor, although some studies report relatively high risk-adjusted returns, low correlations to other asset classes and relatively good downward resilience. But the problem many times is that the sample for analysis is small and the valuation of ulisted infrastructure is based on appraisal wich tends to understimate volatility and correlationswith listed instruments and overestimate their diversification potential

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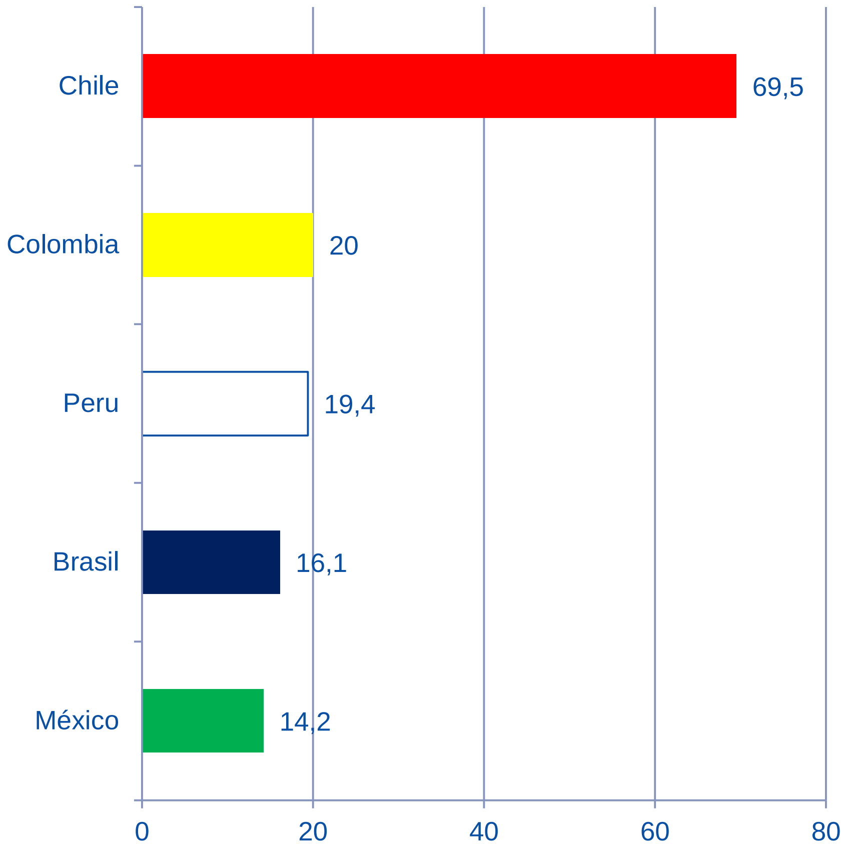
Appendix- I

# Latin American PF and infrastructure assets

## LatAm – Total AUM

As a Percentage of GDP

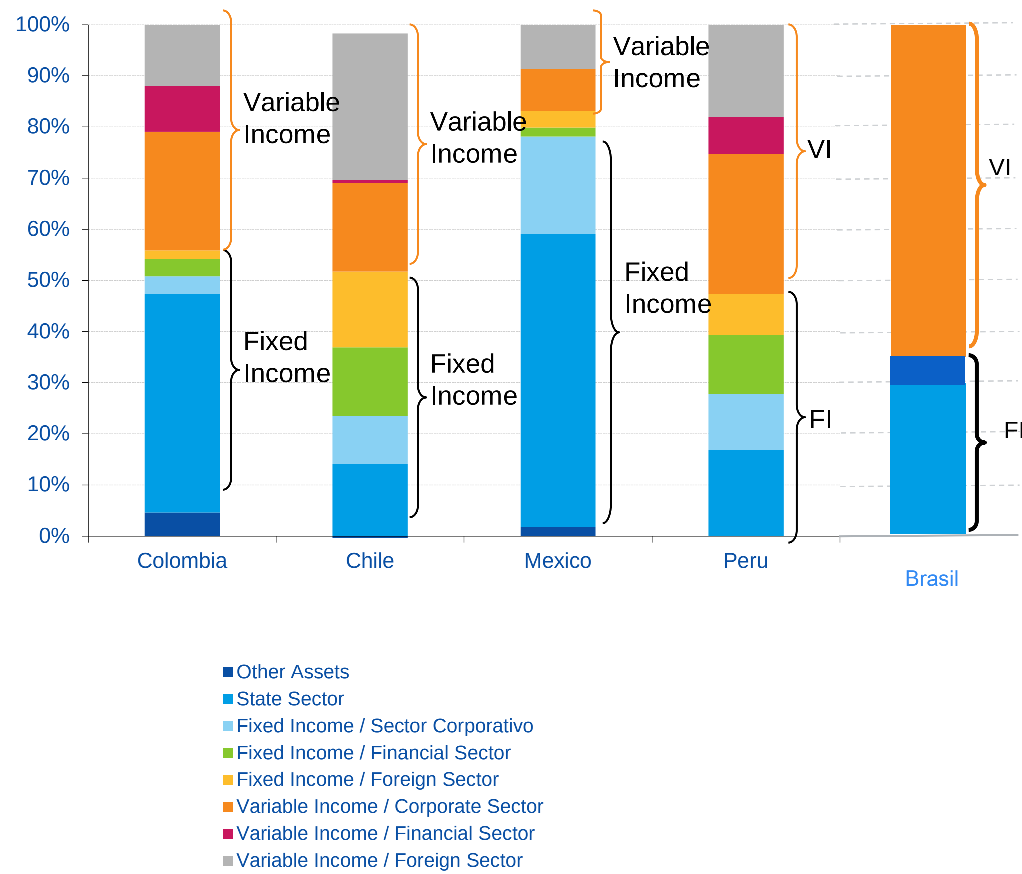
Source: BBVA Research




## LatAm - Asset allocation

Percentage

Source: BBVA Research



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Section 2

# Latin American PF and infrastructure assets

**LatAm: Pension Fund Investment in Infrastructure Allocation – 2014 Estimates**

Source: BBVA Research

| | TOTAL AUM | | Broad Concept PF Infrastructure Investing | | | Direct PF Infrastructure Investing | | |
|---|---|---|---|---|---|---|---|---|
| | US$ Billion | % GDP | US$ Billion | % GDP | % Portfolio | US$ Billion | % GDP | % Portfolio |
| Brazil | 480 | 16,1% | 97,0 | 3,0% | 25,0% | 4,8 | 0,1% | 2,0% |
| Colombia | 96 | 20,0% | 14,0 | 3,7% | 19,1% | 0,9 | 0,2% | 0,7% |
| Chile | 165 | 69,5% | 14,4 | 4,5% | 10,0% | 2,3 | 0,6% | 1,1% |
| Mexico | 159 | 14,2% | 16,3 | 1,4% | 10,3% | 7,6 | 0,7% | 4,8% |
| Peru | 39 | 19,4% | 4,0 | 2,0% | 10,1% | 0,9 | 0,4% | 2,2% |
| **LatAm** | **940** | **22,3%** | **146,7** | **3,3%** | **17,4%** | **16,5** | **0,7%** | **2,6%** |

# Latin American PF and infrastructure assets

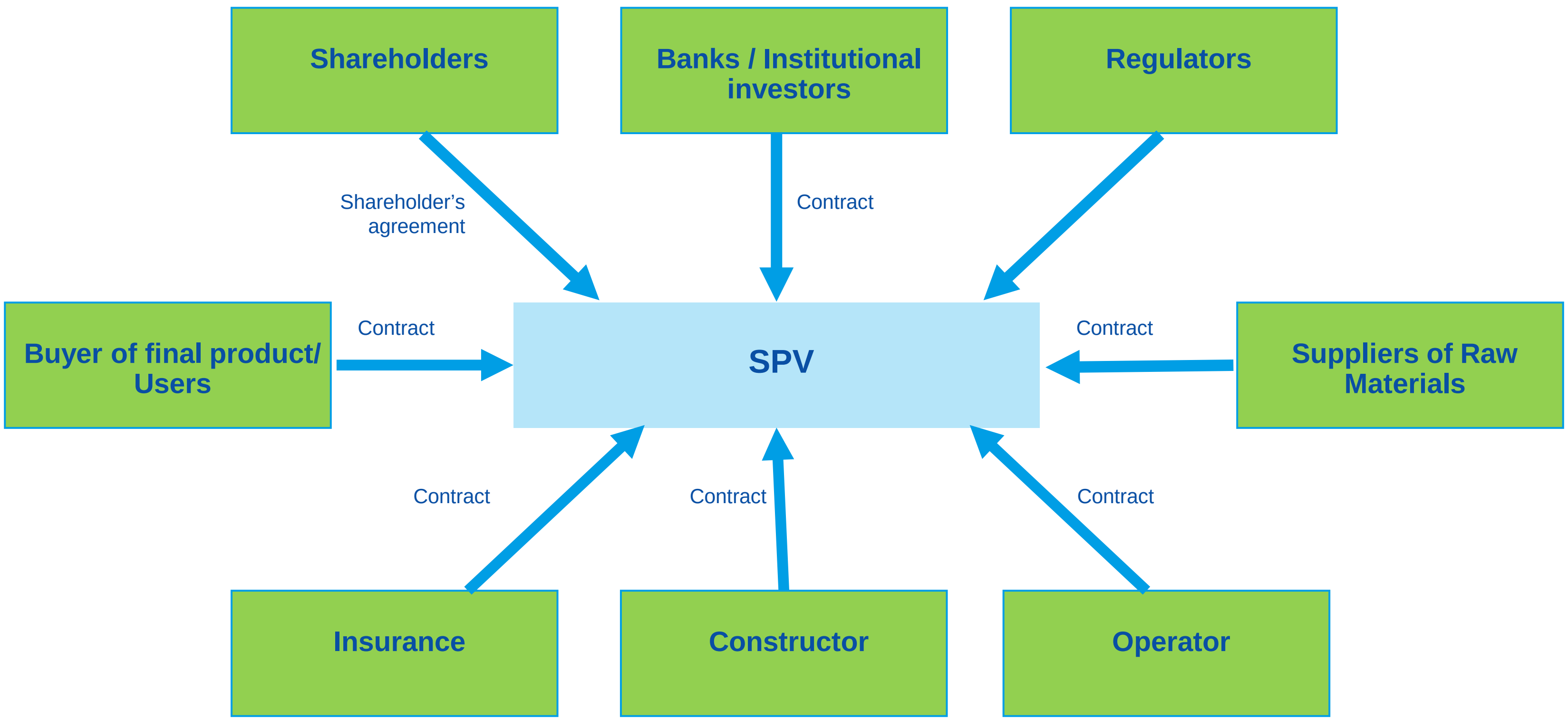
## Some financial instrument used by PFs to invest directly in infrastructure

Source: Dos Santos, Torres y Tuesta (2011)

| Country | Late 1990s | 2000s |
|---|---|---|
| Chile | Infrastructures bonds: 1998. Investment grade bonds<br>Up to 24 y, minimum gvt revenue guarantee<br>Political and regulatory risk insured by monoliners and the IADB | - Infrastructure funds,<br><br>- Private equity funds |
| Colombia | -.- | **Infrastructure bonds**: 2012. O&M-.Minimum 10y. Minimum gvt guarantee<br>Disposable Payment Certificates.<br>2 kind of bonds (assets and securitization)<br>Quantitative limits depending on the fund.<br>**Private Equity fund** |
| Mexico | -.- | **CKDs**: 2008. Trust structured instrument to finance one or more projects. Technical committees to control de project. Participation of experienced operator (Real Estate, PE, Infrastructure)<br>**FIBRAS**: Specialized instrument for acquisitions , construction, infrastructure (similar to REITs)<br>- International investment in infrastructure. REITS |
| Peru | -.- | **CRPI**<br>- 2009. IIRSA Highways.<br>-Debt instrument (15y) issued by investors.<br>-High gvt guarantee but strict mechanisms of supervisions according to Work Progress Certificate<br>**Infrastructure Funds**<br>**Proposal of minimum requirements of structured financial instruments** |

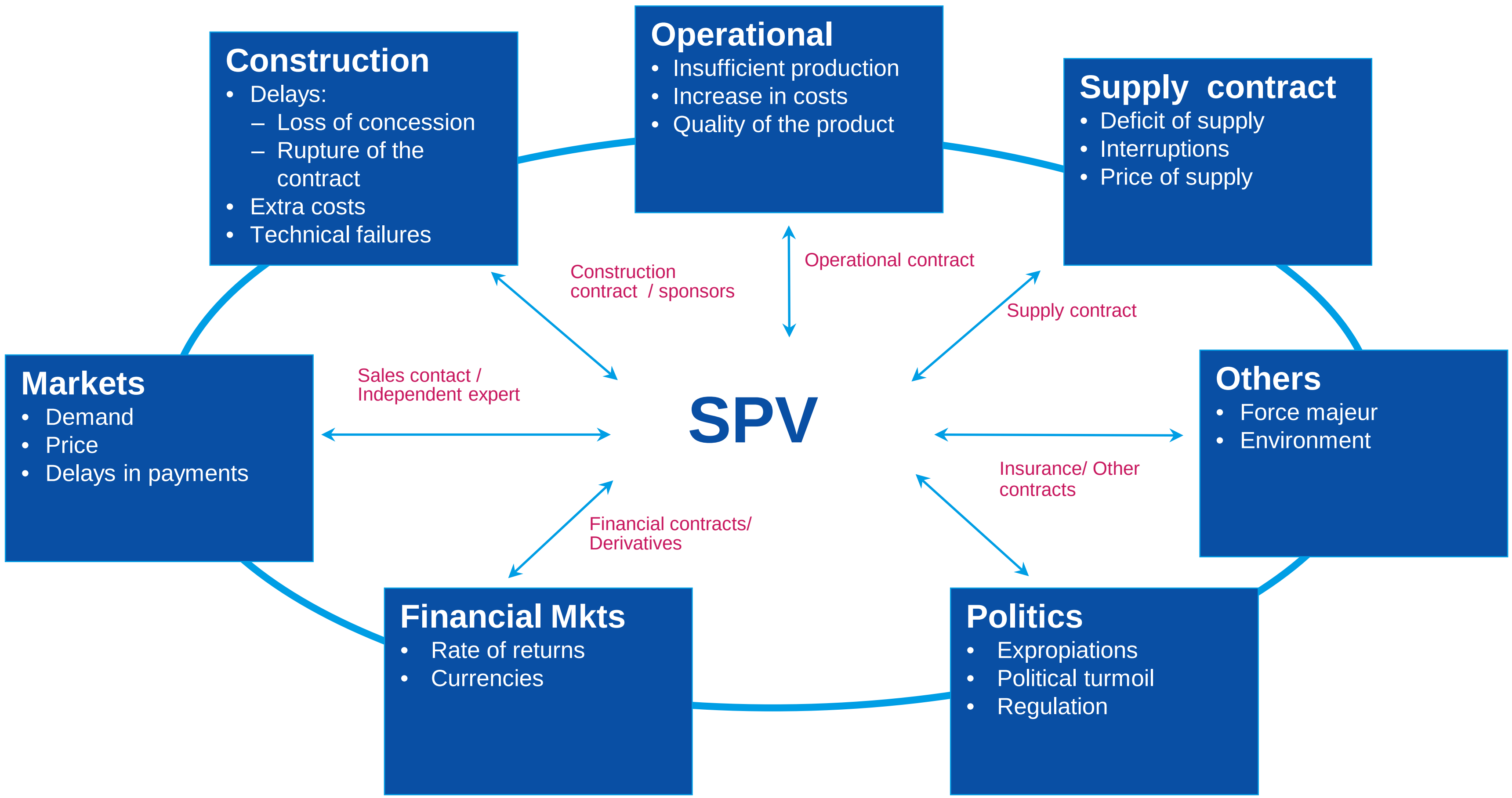
# Outline

# Invest on infrastructures: many factors to take into account




*Source: BBVA Research*

# More to take into account: risks and coverages




Source: BBVA Research

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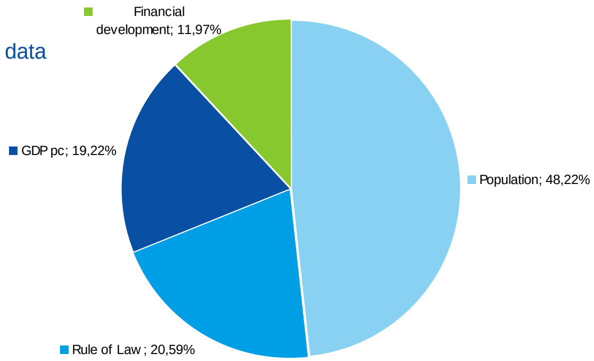
# The importance of the institutional framework

## Determinants of infrastructure investment (PPP)- Panel Data/Tobin effects

As a % of GDP

Source: BBVA Research (2012) with IMF and World Bank data




## Model-Output

Source: BBVA Research (2012) with IMF and World Bank data

| TotalInvestmentCommitments | Coef. | Std. Err. | z | P>z | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| **z2StocksTradedTotalValueof** | **440,3382** | **134,3063** | **3,28** | **0,001** | **177,1027** | **703,5736** |
| MoneyandQuasiMoneyM2as | 5,718168 | 6,957225 | 0,82 | 0,411 | -7,917743 | 19,35408 |
| OfficialDevelopmentAssistance | 0,2432372 | 0,1269655 | 1,92 | 0,055 | -0,0056106 | 0,492085 |
| ReservesImportsofGoodsandSe | 5,291242 | 47,08033 | 0,11 | 0,911 | -86,9845 | 97,56698 |
| Totaldebtserviceofexports | 2,419444 | 10,24259 | 0,24 | 0,813 | -17,65566 | 22,49454 |
| Generalgovernmentnetlendingb | -24,1156 | 22,78077 | -1,06 | 0,29 | -68,7651 | 20,5339 |
| **z2logPopulation** | **1773,164** | **258,1173** | **6,87** | **0** | **1267,263** | **2279,064** |
| **z2GDPperCapita2000US** | **706,7458** | **200,3026** | **3,53** | **0** | **314,16** | **1099,332** |
| **RL_EST** | **757,1392** | **354,4137** | **2,14** | **0,033** | **62,5011** | **1451,777** |
| _cons | 65,52024 | 496,6049 | 0,13 | 0,895 | -907,8074 | 1038,848 |

# Future trends in infrastructure investing (I)

- An scenario of diminishing interest rates as a consequence of global monetary policies, financial conditions, new regulatory developments (Basel III, Solvency II, others). This makes necessary for PF to look for alternatives that improve portfolio returns.

- Longevity risk will affect future pensions. Likely need to count on more alternative investing.

- How governments will facilitate the overall regulatory and procedural framework to have good projects

- LatAm has an important infrastructure gap that governments cannot finance alone. US$ 1 trillion dollars in AUM (and more in the future) could be very tempting for politicians (something for being alert).

- But, LatAm is in the beginning of its learning curve. Rule of Law, institutional factors are key.

- Overall, project infrastructure investing are a good alternative for increasing pension fund's financial exposure; however, this needs to go hand in hand with its trustee role, the commitment to provide adequate pensions, and a well designed long term financial strategy.

# Future trends in infrastructure investing (II)

- The current allocation of LatAm PF in infrastructure investing seems “reasonable” comparing to other experienced PFs around the world. Notwithstanding, there is not enough information to perform a complete financial analysis (recent experiences, no official reports in some cases) although some numbers seems to match theoretical and empirical perspectives
- LatAm PFs are using interesting financial instruments to invest directly in infrastructure projects. The quality and quantity of this instruments depends fundamentally on the availability of well designed  projects and timely processes, where government facilitator role is key. Different studies show that  a well developed institutional framework is key

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# Thank you

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