

Projecting Pension Expenditure in Argentina 2008-2050: Fiscal consequences of the nationalisation

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OUTLINE

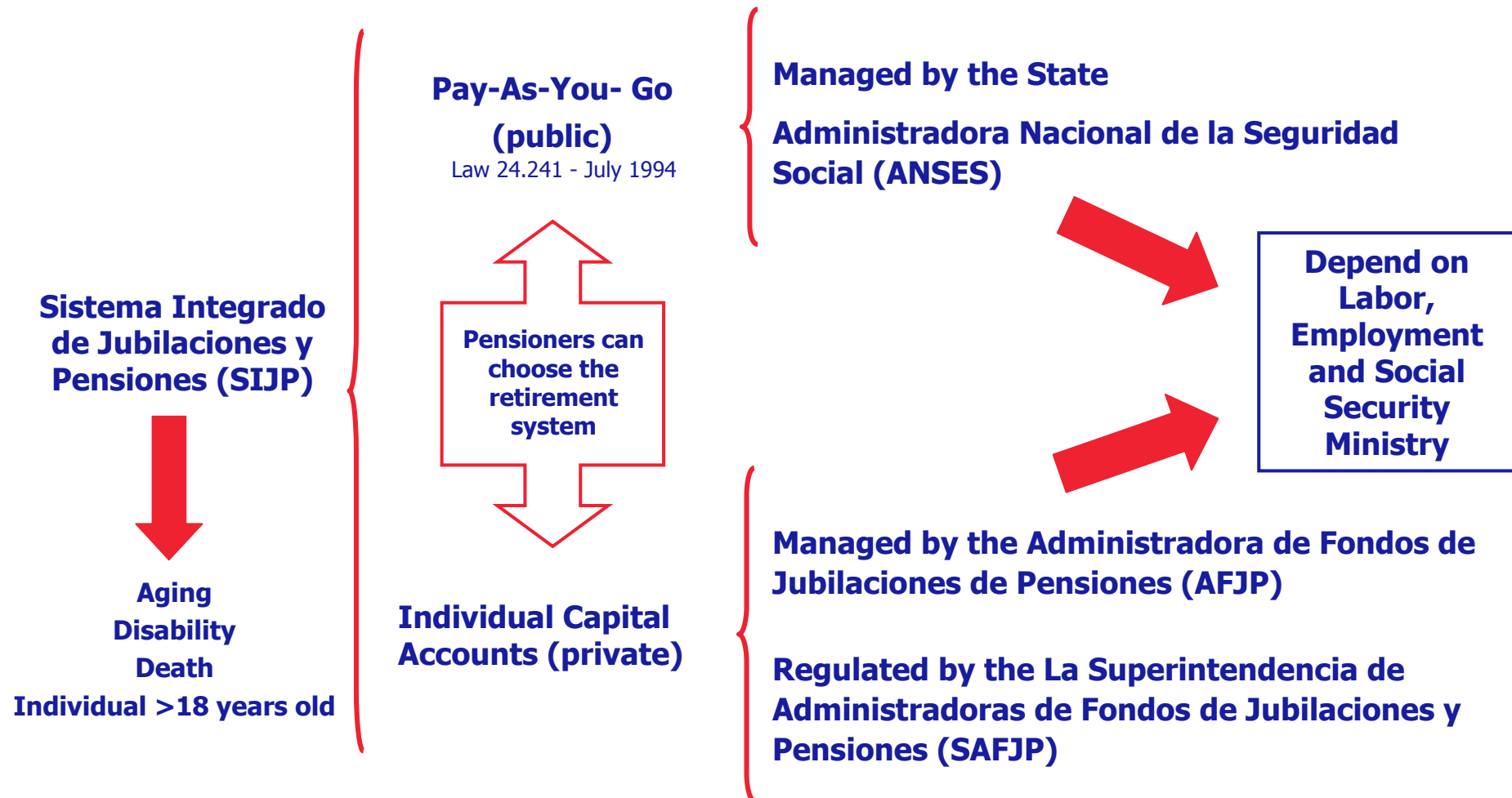
1. Argentinean Pension System

2. The nationalisation and Projection methodology

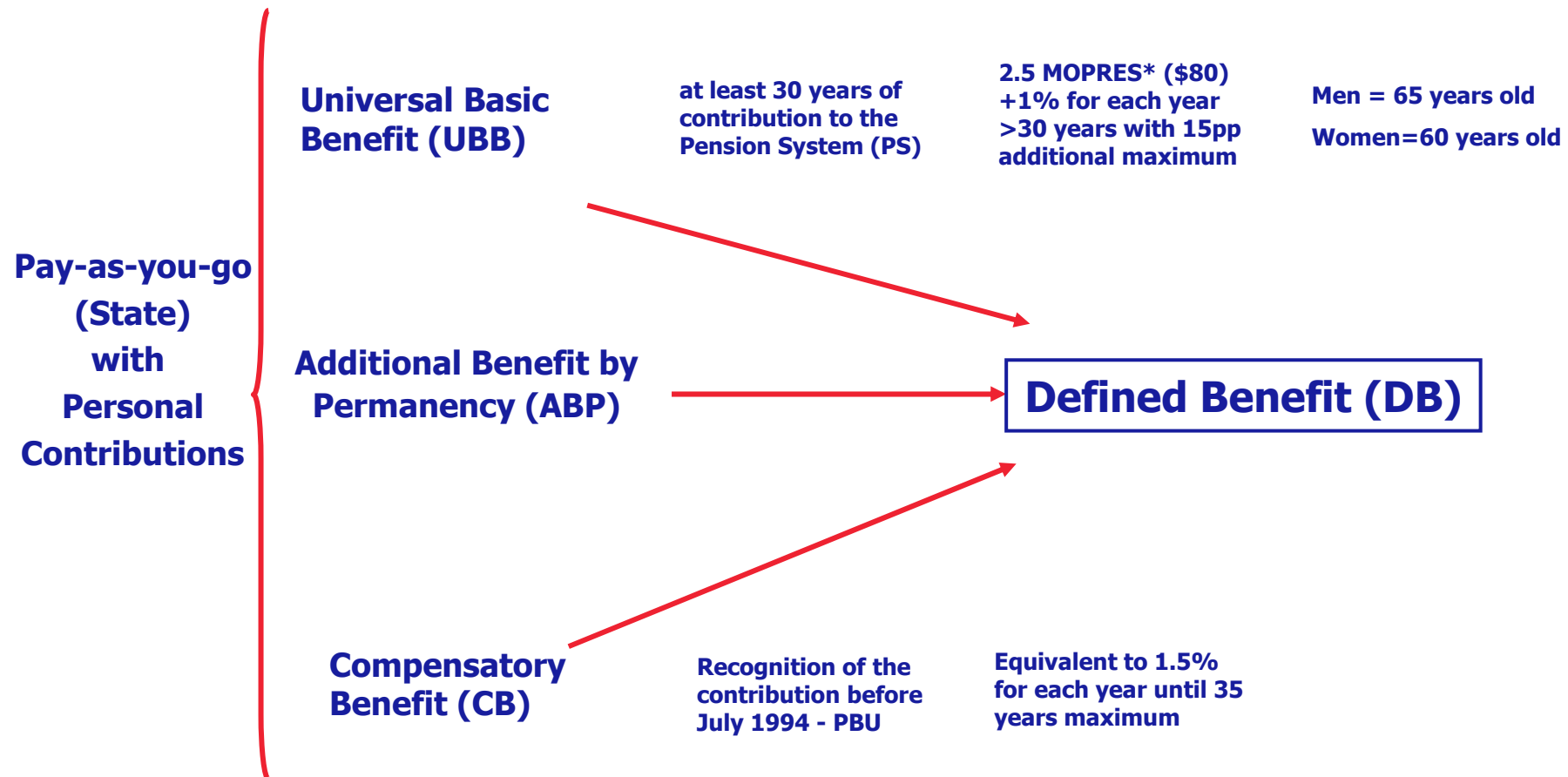
3. Results

4. Concluding remarks

Structure of the Argentinean Pension System until 2008

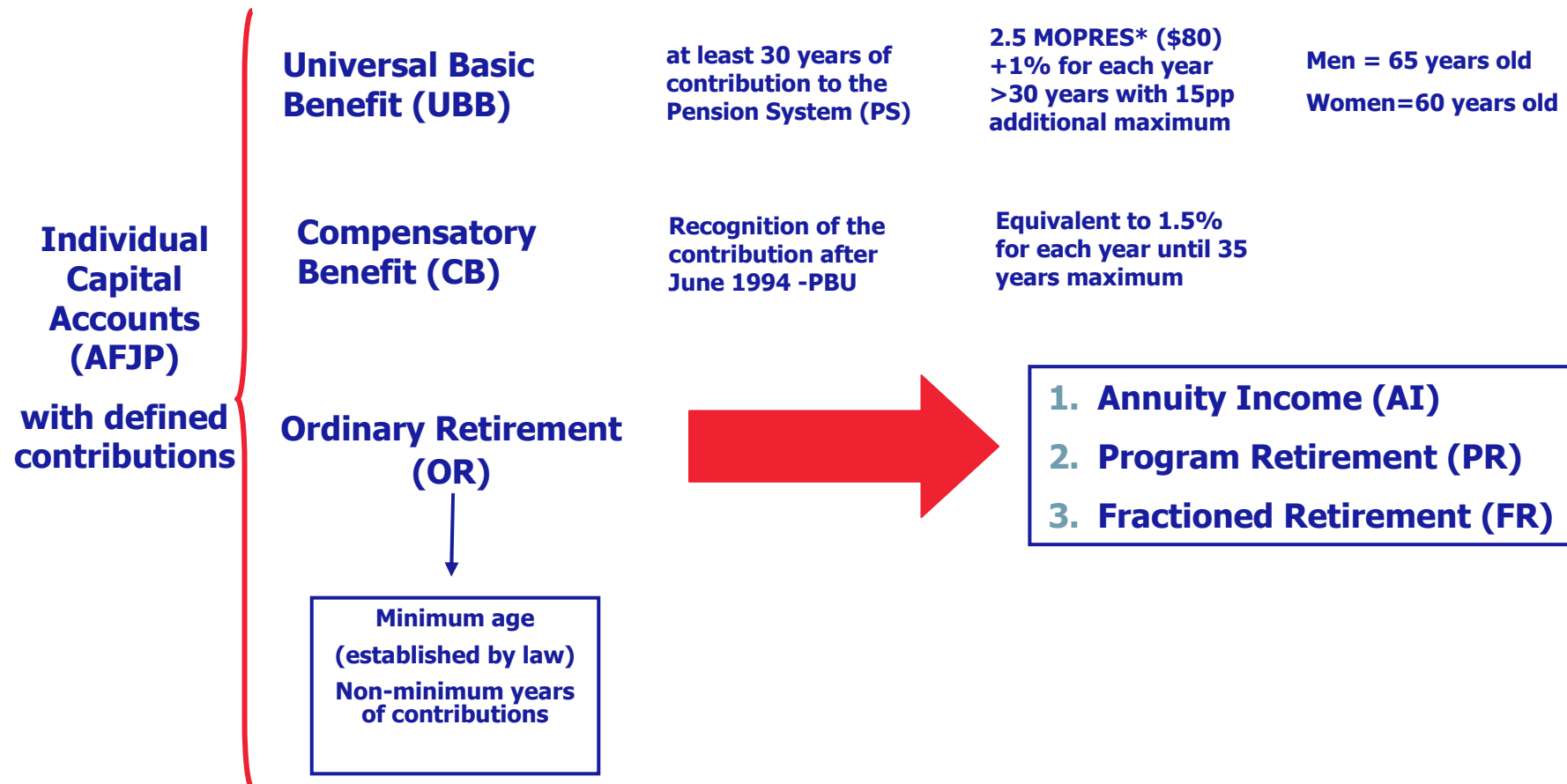


Employees have chosen among systems since 1994



*MOPRE value \$ 80 since 1997, last increment. MOPRE definition by "Ley de Presupuesto Nacional".

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In 2007, law 26,222 inserted some changes in the system

**Direct changes
to affiliates**

Periodically and free transit among systems

Pay-as-you-go option for "indecisive"

Automatic change to Pay-as you-go for certain affiliates close to retire

Improvement in the Pay-as-you-go regime

Increment to the maximum remuneration linked to previous contributions

Personal contributions unification at 11%

Maximum commission for the AFJP at 1% of the gross wages

**Changes with indirect
impacts on affiliates**

Mutualization of the Disability and Death insurance

Modification in the portfolio investment choices

Challenges for a pension system

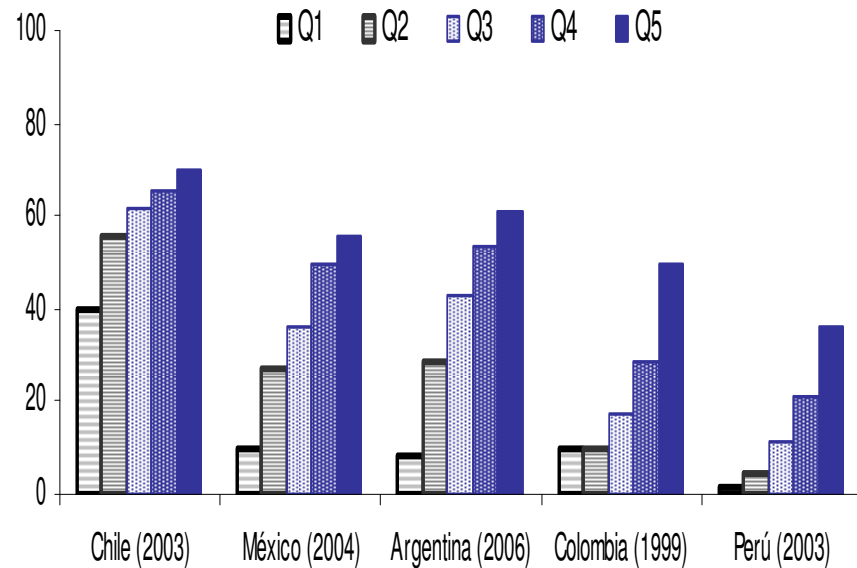
- Low levels of coverage because all citizens do not contribute for their pension fund
- Low wages (56% men and 67% women contribute below of the minimum wage - \$980-, meanwhile almost 43% of the population contribute 1/5 of that value)
- Total affiliates with capitalized regime, only 35.6% have an enough contribution density that allow them to get the government benefit (PBU y PC), in addition to the minimum pension.
- The public system was financially funded

Labor informality and percapita income level are behind the low coverage

Challenges for a pension system

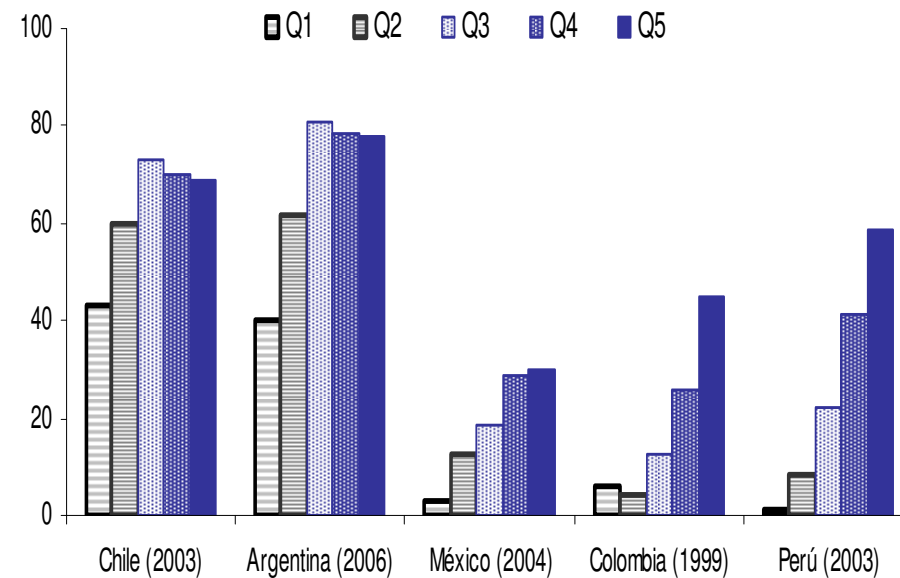
**Coverage as a % of Active Population-
Quintiles**

(Q1=poorest, Q5=richest)



**Coverage as % of older than 65 years old-
quintiles**

(Q1=poorest, Q5=richest)



Labor informality and percapita income level are behind the low coverage

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Aggregate accounting.

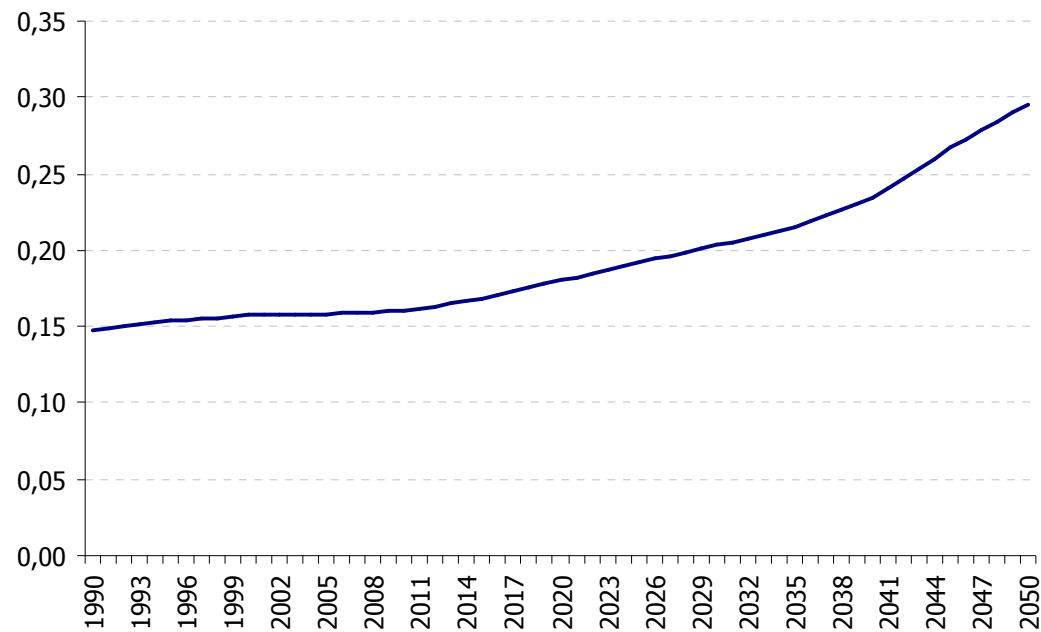
- We opt for the aggregate accounting methodology (instead of life-cycle or general equilibrium models) based on its popularity (Ageing Working Group, CBO) and simplicity. Public pensions expenditures over GDP can be decomposed as:

$$\frac{G_t^{pens}}{P_t GDP_t} \equiv \frac{L_t^{pens}}{L_t^{+65}} \frac{L_t^{+65}}{L_t^{16-64}} \frac{L_t^{16-64}}{L_t^s} \frac{1}{1-u_t} \frac{\left(\frac{G_t^{pens}}{P_t L_t^{pens}} \right)}{\left(\frac{GDP_t}{L_t} \right)}$$

- Take-up ratio: proxy of the pension system coverage (institutional rules).
- Old-age dependency ratio (demography).
- Employment rate: participation and unemployment (socio-economy).
- Benefit ratio: real average pension over productivity (institutional rules and macroeconomy).

Demographic trend.

Dependency ratio, 1990-2050
($L_{>64}/L_{15-64}$)



Source: CELADE

The main scenario includes fertility, mortality and migration scenario from CELADE.

Macroeconomic: participation and unemployment rates.

Principales supuestos socio-económicos

	2007	2010	2030	2050
Tasa de participación				
Total	62,1%	61,0%	60,1%	60,5%
Mujeres	51,1%	51,2%	52,2%	54,1%
Hombres	73,9%	71,5%	68,4%	67,2%
Tasa de paro				
Total	8,5%	9,0%	8,5%	8,5%
Mujeres	10,3%	10,9%	11,3%	11,3%
Hombres	7,1%	7,5%	6,1%	6,1%

It was defined a central macroeconomic scenario based on the economically active population, unemployment rate, formality and productivity.

Institutions: coverage and pension level.

Principales supuestos, sistema de pensiones en Argentina

Escenario demográfico

Demo 1 CELADE 2005-2050

Escenario socio-económico

Macro 1 Desempleo 8,5% desde 2015, Actividad 60,5% en 2050
BBVA Banco Francés

Escenarios institucionales

Pensión media

Pens 2 Pensión media de ex AFJP = 1,1 pensión media de reparto

Pens 1 Pensión media de ex AFJP = 1,3 pensión media de reparto

Pens 3 Pensión media de ex AFJP = 1,5 pensión media de reparto

Fondos acumulados en AFJP

Fondo 2 Rentabilidad real = 4,0% desde 2010 (0,0% en 2009)

Fondo 1 Rentabilidad real = 0,0%

Fondo 3 Rentabilidad real = -4,0% desde 2010

Supuestos comunes

Escenario macroeconómico 2008-2011: BBVA Banco Francés

Crecimiento de la productividad: 2,2% desde 2012

Tasa de cobertura 1,0 desde 2020

Pensiones medias aumentan con la productividad

Cotizaciones medias aumentan con la productividad

Cotizantes aumentan con la formalidad

Otros ingresos e ingresos tributarios se reducen al nivel pre-reforma (1993)

Tipo de interés de descuento = 4,0%

•We use three alternative institutional scenarios, which differ in pension levels, and reserve fund returns.

•Our approach is respectful with the main institutional features of the Argentinean pension system (contributions, reserve fund, financing sources, pension categories).

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Main results: pension expenditure scenario, Argentina 2008-2050.

Proyección del gasto público en pensiones en Argentina

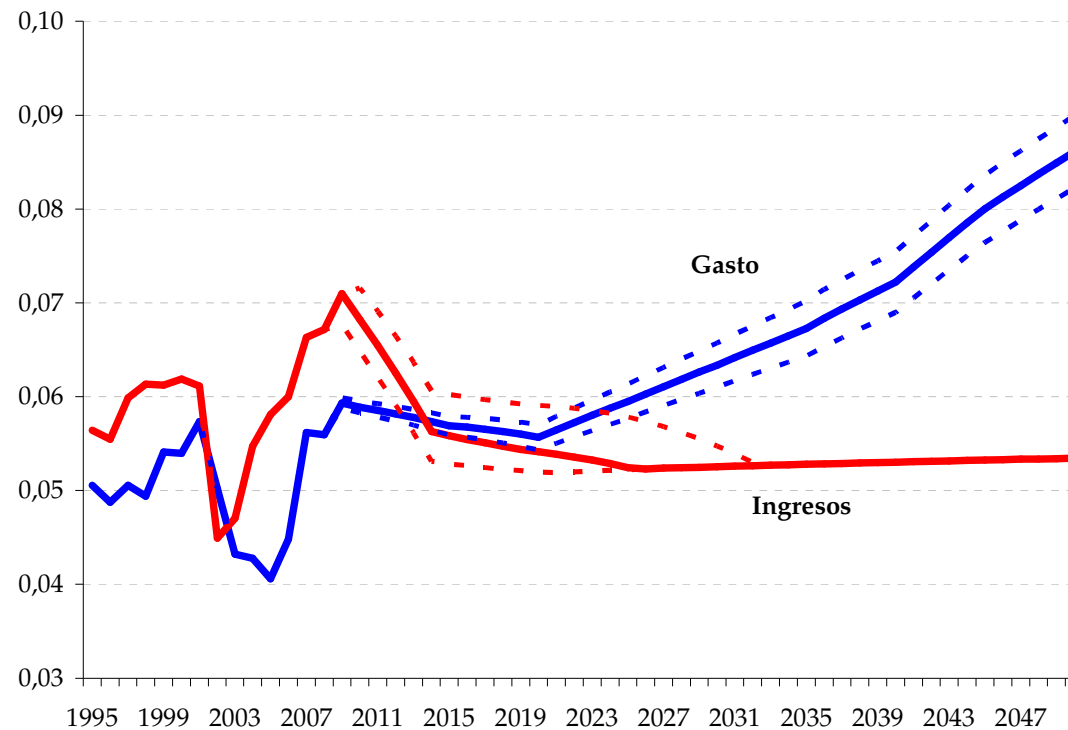
	Gasto % PIB	Pensiones / Cotizante				Tasa de reemplazo	
	$G_{pens}/P \cdot GDP$	L_{pens} / L	Tasa de cobertura $L_{pens} / L+65$	Tasa de dependencia $L+65/L_{15-64}$	Tasa de empleo L_{15-64}/LS	$1 / (1-u)$	$(G_{pens}/P \cdot L_{pens}) / (GDP/L)$
Escenario central							
2007	5,6%	0,29	1,20	0,16	1,39	1,09	0,19
2015	5,7%	0,28	1,10	0,17	1,41	1,09	0,20
2030	6,3%	0,31	1,00	0,20	1,38	1,09	0,21
2050	8,6%	0,41	1,00	0,30	1,28	1,09	0,21

Public expenditure will increase 3.0 p.p. of GDP, mainly driven by the increase of the old-age dependency ratio (which doubles, up to 0.3) and by the incorporation of high average pension workers from the previous private scheme (until 2007 workers in the private system perceived a salary 30% more than workers in payg scheme).

Main results: pension expenditure scenario, Argentina 2008-2050.

Gasto e ingresos del sistema de pensiones de Argentina

(Escenarios central y alternativos, %PIB)



Fuente: Ministerio de Trabajo, MECON y SEE BBVA

Main results: pension expenditure scenario, Argentina 2008-2050.

Resumen de indicadores del sistema de pensiones de Argentina

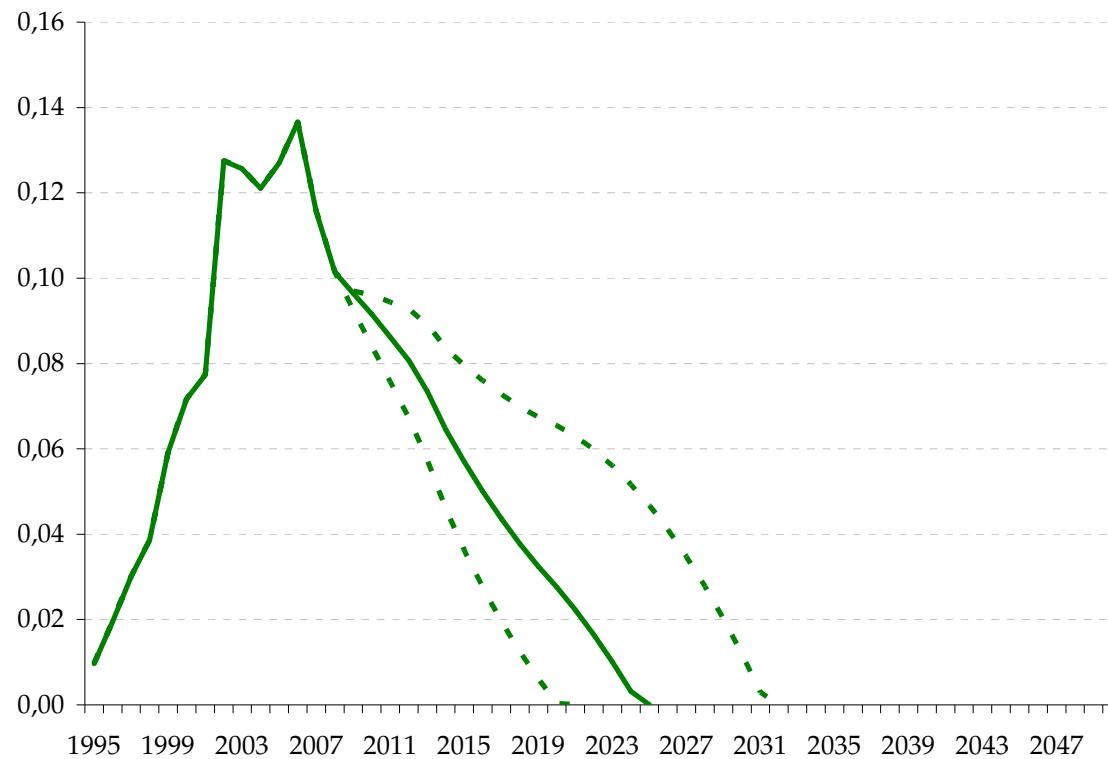
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	Gasto elevado	Central	Gasto reducido
Fechas clave			
Gasto > Cotizaciones y otros ingresos	2011	2012	2013
Gasto > Total ingresos	2012	2014	2026
Fondo = 0	2022	2026	2033
Deuda acumulada hasta 2050			
(% PIB anual)	-1,1%	-0,8%	-0,4%
(% PIB 2007)	-40,3%	-29,4%	-14,3%

A table summarizing this set of indicators should be published and discussed every year (as is done in the US, by the Trustees).

Fondo de reserva del sistema de pensiones de Argentina

(Escenarios central y alternativos, %PIB)



Fuente: MECON, FIAP y SEE BBVA

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1. Argentina has recently unified the pension system, setting back a traditional DB pay-as-you-go system.
2. Even assuming a relatively favourable macroeconomic and institutional scenario, expenses will increase in the following decades, as a result of the ageing process.
3. In the central scenario, the system will register a shortfall in 2014 and wipe out all funds transferred to PF in 2026. In present value, the imbalance until 2050 will reach 29 points of the current GDP.
4. Other emerging countries should take into account this fiscal burden, in case they debate following the Argentinean initiative.

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Aggregate accounting: assumptions.

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