

# **Pension Systems in Mexico: evolution and challenges**

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## Pension Systems in Mexico

Section I

### **Development of Social Security**

Section II

### **Positive factors of IMSS´s Reforms – Afore´s System**

Section III

### **Challenges to 2nd generation reforms**

Section IV

### **Annex**

## Section I

### Development of Social Security in Mexico

- The modern concept of Social Security in Mexico had its origin as a constitutional law (1917).
- The efforts to expand the institutional social security infrastructure in the country were not part of an explicit and comprehensive public policy.
- Given this situation, **the country does not have a national pension system but rather several institutional subsystems.**

	Constitution 1917								
Private Sector Workers	1943 Social Security Law	1972 Infonavit Housing	1992 SAR	1995 Social Security Law Reform	1997 SAR Law	2002 SAR Law Reform	2005 SAR Law Reform	2007 SAR Law Reform	
Public Sector Workers	1925 General Civil Pension Law	1959 ISSSTE Law	1972 FOVISSSTE Housing			2002 SAR Law Reform		2007 ISSSTE Law Reform	
Open population	1943 Department of Health and Assistance	1975 Special Regimes (ISSFAM, others)	1983 General Health Law		1999 Reforms to Special Regimes	2002 SAR Law Reform	2003 General Health Law and Public Insurance Reform	2006 Public Social Security System	2007 Sedesol Senior Adults

Source: BBVA Bancomer based on ISSSTE, "Reforma Integral al ISSSTE" at [www.issste.gob.mx](http://www.issste.gob.mx)

## Section I

### Development of Social Security in Mexico

- **Social security benefits and in particular those corresponding to pension plans are very heterogeneous.**
- Federal and state institutions distribute publicly available pensions both at the level of federal (for public workers ISSSTE and IMSS for private workers) as well as state government institutions (ex. Pemex – oil company).

#### Social Security Benefits by Institution

Federal ISSSTE*	State ISSSTE**	IMSS
<ul style="list-style-type: none"> <li>• Health care</li> <li>• Workplace liability insurance</li> <li>• Disability and life insurance</li> <li>• Retirement, due to age and for time served insurance</li> <li>• Severance at old age insurance</li> <li>• Full retirement services for pensioners</li> <li>• Total indemnity</li> <li>• Mortgage loans</li> <li>• Medium-term loans</li> <li>• Short-term loans</li> <li>• Funeral services</li> <li>• Contribution to SAR</li> <li>• Day-care centers</li> <li>• Social benefits</li> <li>• Sale and lease of housing</li> </ul>	<ul style="list-style-type: none"> <li>• Health care</li> <li>• Workplace liability insurance</li> <li>• Workplace accident insurance</li> <li>• Non-professional illness insurance</li> <li>• Loans for retirement</li> <li>• Pension due to disability, cause of death</li> <li>• Life insurance</li> <li>• Short-term loans</li> <li>• Long-term loans</li> <li>• Housing loans</li> </ul>	<ul style="list-style-type: none"> <li>• Health care</li> <li>• Workplace liability</li> <li>• Disability and life</li> <li>• Retirement for time served and severance at old age (IMSS workers)</li> <li>• Housing loans</li> <li>• Retirement Savings System (SAR), (affiliates)</li> <li>• Day-care centers</li> <li>• Social benefits</li> </ul>

## Section I

### Development of Social Security in Mexico

- **Various public departments, agencies and local governments often sign agreements with ISSSTE or IMSS to partially or totally receive their services.**
- Ex. Workers of the public development banks (Nafin, Bancomext, etc) and Federal Electricity Commission (CFE) have a pension plan and in addition pay fees to the IMSS.
- Some local governments have their own social security systems but most partially or totally contract their services with the ISSSTE.

Pemex	CFE	ISSFAM
<ul style="list-style-type: none"> <li>• Full health-care services</li> <li>• Workplace liability</li> <li>• Indemnity</li> <li>• Retirements</li> <li>• Life insurance</li> <li>• Housing loans</li> <li>• Administrative loans</li> <li>• Funeral expenses for workers and affiliates</li> <li>• Scholarships for workers' children</li> <li>• Contribution to SAR</li> </ul>	<ul style="list-style-type: none"> <li>• Life insurance due to death from natural cause</li> <li>• Workplace accident insurance</li> <li>• Contribution to SAR</li> <li>• CFE housing fund</li> <li>• IMSS:               <ul style="list-style-type: none"> <li>• Health-care services</li> <li>• Workplace liability</li> <li>• Disability and life</li> <li>• Social benefits</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Full health-care services</li> <li>• Lifetime retirement pension</li> <li>• Lifetime pensions for military survivors</li> <li>• Retirement insurance</li> <li>• Military service insurance</li> <li>• Sole economic compensation</li> <li>• Funeral expenses for workers and survivors</li> <li>• Work Fund</li> <li>• Savings Fund</li> <li>• Mortgage loans</li> <li>• Aid to retired military personnel</li> <li>• Scholarships for workers' children</li> <li>• Social benefits</li> <li>• Sale and lease of housing</li> </ul>
<p>* Services current prior to the reform of the ISSSTE Law in March 2007</p> <p>** Also considered were ISSSTELEON, ISSTAB, ISSTEY and ISSSEMOR</p> <p>Source: Legislation corresponding to each institution</p>		

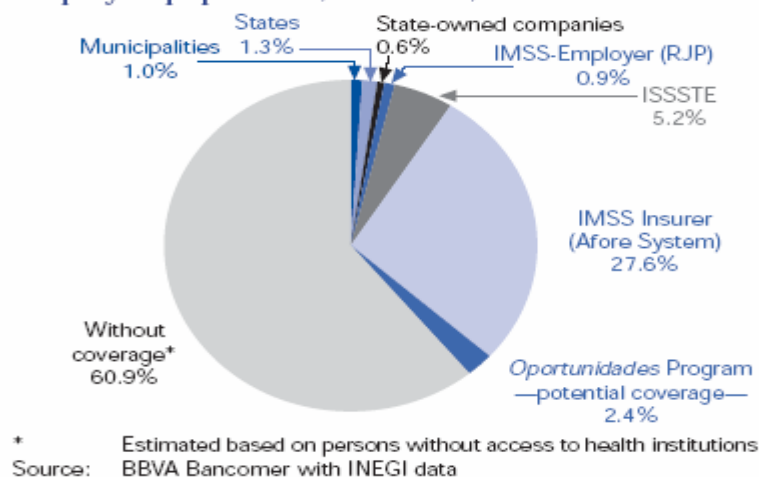
## Section I

### Development of Social Security in Mexico

- **Despite the enormous importance of IMSS and ISSSTE** as social security institutions on a national level, the scope of their coverage is **limited** when we consider the economically active population or the country's total population. Pension plans are for formal workers and their beneficiaries only.
- Coverage is limited for institutional reasons, ex. independent workers do not have the legal obligation to become affiliated and pay fees into a pension system.
- **The aim of the Opportunities Program is to protect the open population** (who does not have social security), especially those with low income levels.

#### Coverage in Main Social Security and Pension Systems

Employed population, % of total, 2006



## Section I

### Development of Social Security in Mexico

#### **Reforms in the IMSS pension system:**

**A new pension system based on defined-contributions with the guarantee of a pension for IMSS-affiliated workers.**

- The Social Security Law (in effect since 1973) was modified in July 1st, 1997.
- The IVCN plan (that provided: disability, old age, severance at old age, and life insurance coverage) was plagued by serious financial imbalances.
- Insurance for retirement, old age and severance (RCV) were removed from the Institute (IMSS)
- The financial management of the resources was transferred to the Retirement Fund Administrators (AFORE), which could manage one or more Pension Funds.
- The operations involved in collecting fees and the certification of RCV rights remained in the hands of the Institute (IMSS)

# Pension Systems in Mexico

Section I

**Development of Social Security**

Section II

**Positive factors of IMSS´s Reforms – Afore´s System**

Section III

**Challenges to 2nd generation reforms**

Section IV

**Annex**



## Section II

### Positive factors of IMSS Reforms

1) The new pension system **offered workers greater legal security with regards to their pension** since it enabled each individual to have an **individual savings account** in the **AFORE** of their **choice**.

- The resources in this account were also recognized as their property.
- Mandatory tripartite contributions—from the affiliate himself, from the employer, and from the federal government- to the system of individual accounts in the Retirement Savings System (SAR).

Financial regime	IMSS	ISSSTE
Contributions	6.5% SBC	11.3% SBC
Joint savings (state co-financing)	n.a.	3.25 x 1 peso*
Guaranteed pension	1 SM	2 SM

## Section II

### Positive factors of IMSS Reforms

**2) The system has diminished the fiscal cost of the IMSS “pay-as-you-go system”,** it would have increased given that the population is ageing.

- *Grandolini and Cerda* (1998) emphasized that the IMSS reform could not be postponed any longer because of the serious financial imbalances in IVCM insurance. These researchers reported that in accordance with the official estimates of the time, the actuarial deficit would have reached an amount equivalent to 141% of 1994 GDP on a 74-year horizon.

#### Present Value of Future Deficits in the IMSS-IVCM Insurance Pension December 31, 1994, thousands of 1994 pesos

Assets		Liabilities	
Reserves	3.25	Present value of old-age pensions	96.93
Present value of future contributions	683.67	Present value of future obligations	2,390.61
Current affiliates	179.74	Current generation	1,017.40
Future generations	503.93	Future generations	1,373.21
Total assets	683.92	Total liabilities	2,487.54
<b>Present Value of Future Pension Deficits: 1,800.62 (141.5% of GDP)</b>			

Source: Grandolini and Cerda (1998)

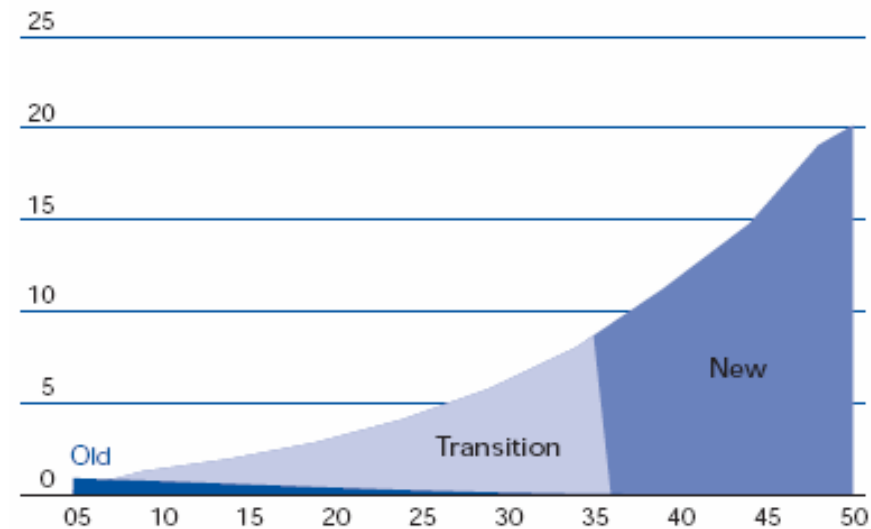
## Section II

### Positive factors of IMSS Reforms

#### Two pension models during a long period of transition

- Starting in July 1st, 1997 all workers newly affiliated to the IMSS were incorporated into the new defined-contribution scheme,
- All workers who were paying fees under the defined-benefit system up to June 30th, 1997, at the moment of their retirement they were given the right to choose between the two plans, that which favored them best as pensioners.

Coverage of the IMSS Pension Systems  
Millions of persons



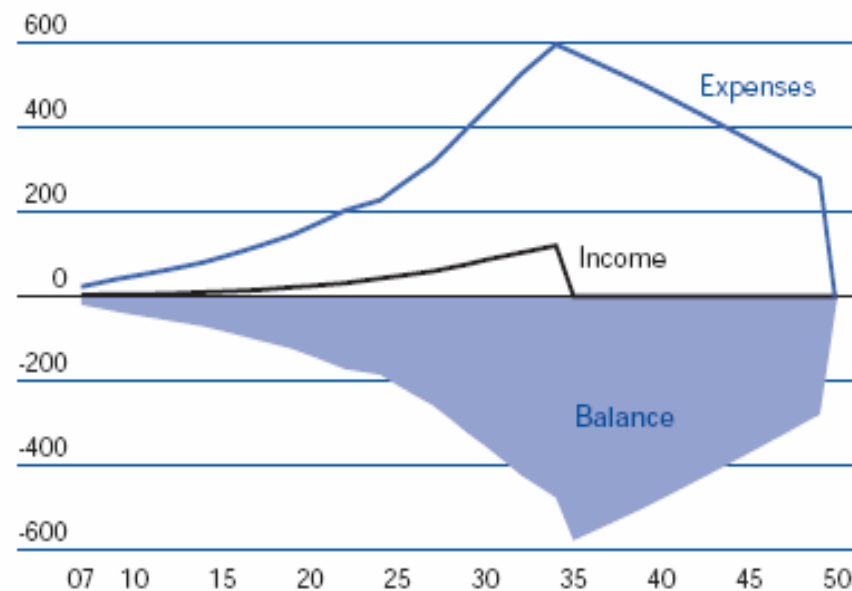
Source: BBVA Bancomer

## Section II

### Positive factors of IMSS Reforms

- **Transition generation (people who affiliated before 1997) hold generous pensions**, so there are no incentives for frequent contributions and
- Positive factor of this reform not fiscal cost

Old-age Pensions under LSS-73  
Millions of Pesos at 2004 constant prices



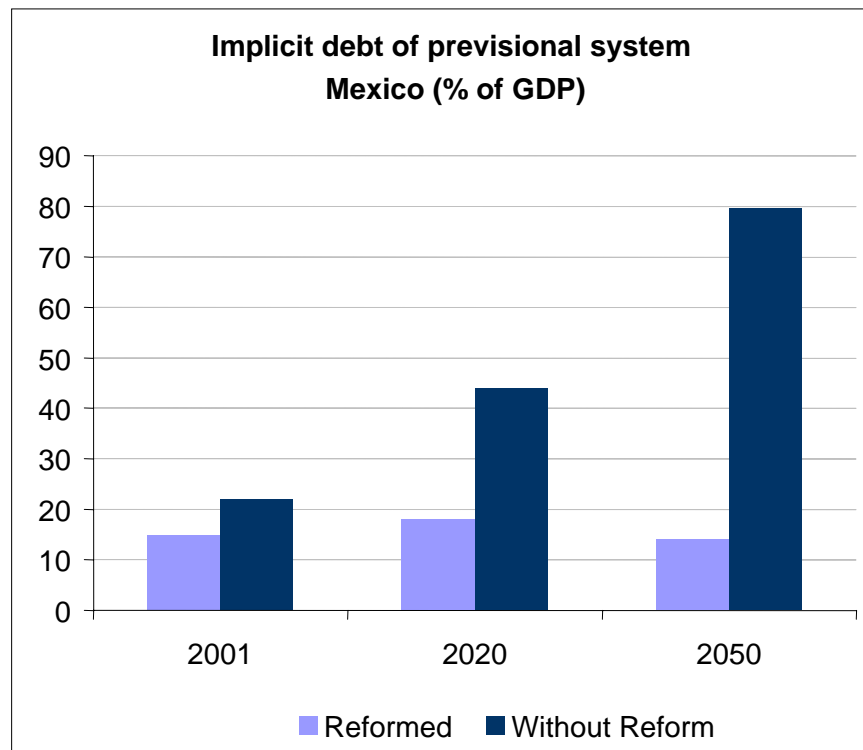
Source: BBVA Bancomer

56.4% of the  
GDP (2004)

## Section II

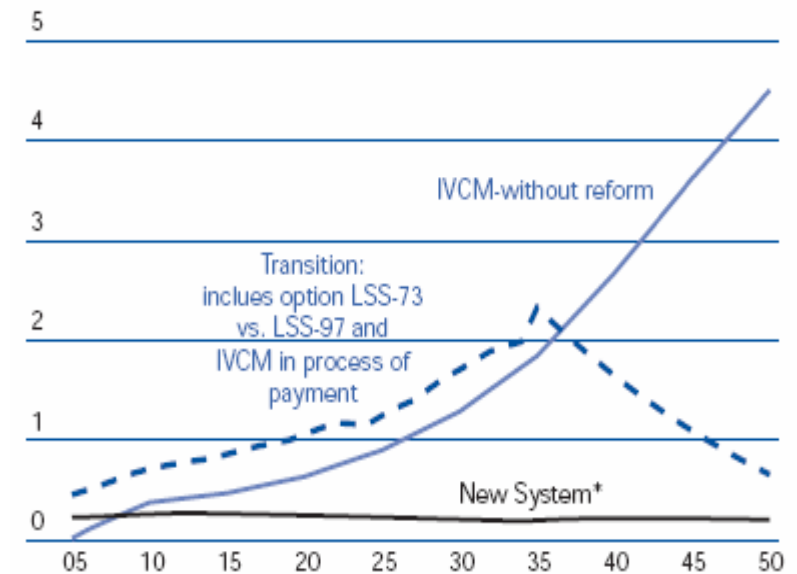
### Positive factors of IMSS Reforms

**In summary, the reform was successful in diminishing fiscal costs, even with the effect of the transition generation**



Source: Zviene y Packard (2002)

### IMSS Pension Systems Expense, % of GDP



\* Includes state contributions and guaranteed pension

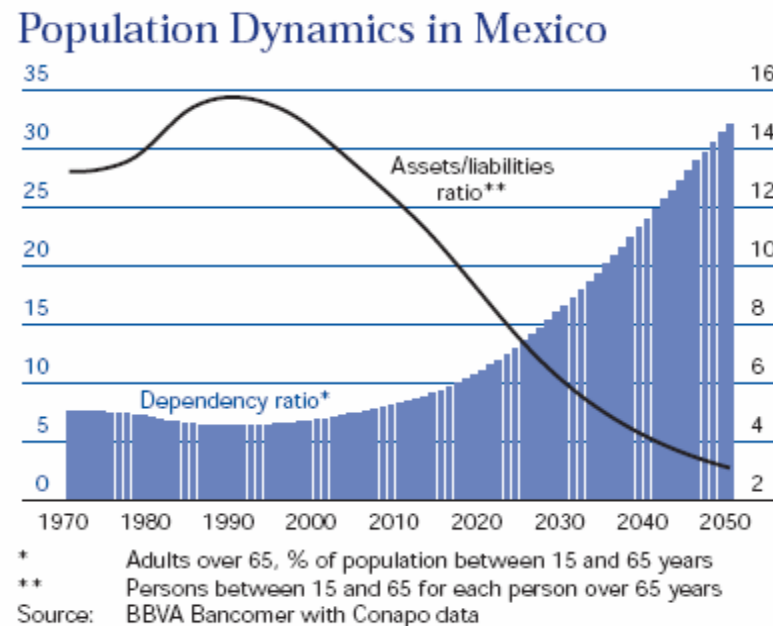
Source: BBVA Bancomer

## Section II

### Positive factors of IMSS Reforms

#### 3) The reform system is financially feasible and immune from demographic trends

- The reduction in birth rates and the aging of the population have led to a situation in which the number of active workers for each retired worker is increasingly smaller, while, at the same time, advances in health care and the increase in life expectancy have increased the time during which the pensions are paid.
- Old models (defined benefit – BD) are losing their economic viability as they do not have appropriate long-term funding.



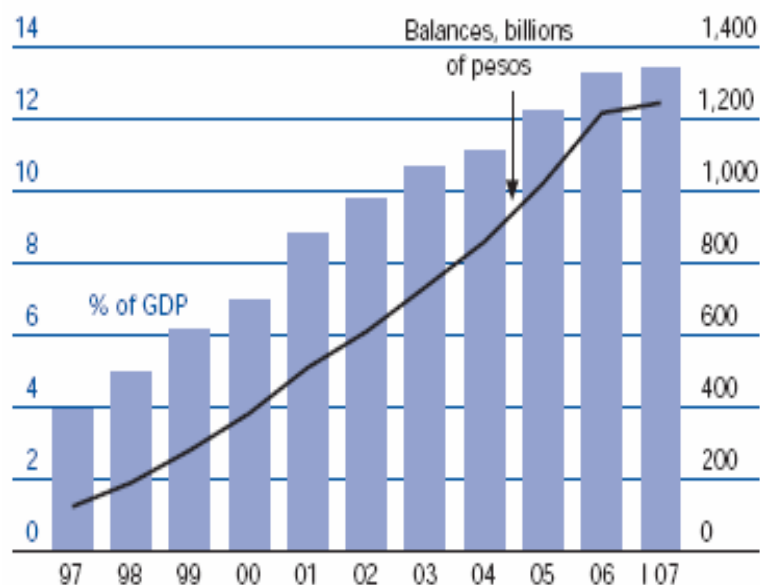
## Section II

### Positive factors of IMSS Reforms

#### 4) Increase domestic savings

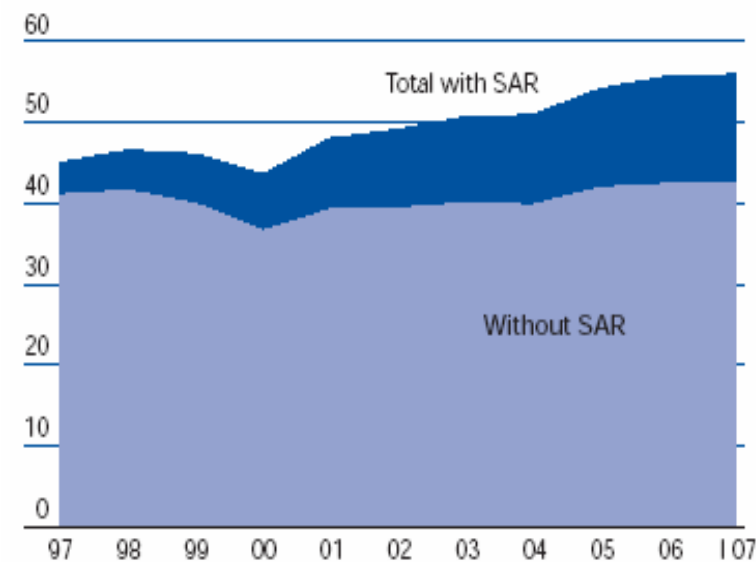
The SAR resources managed by AFORE are now\* the main source of growth of the country's financial and long-term savings. These resources \*represent an increasingly greater percentage of the economy.

#### SAR Resources



Source: BBVA Bancomer with Banco de México data

#### Financial Savings With & Without SAR % of GDP



Source: BBVA Bancomer with Banco de México data

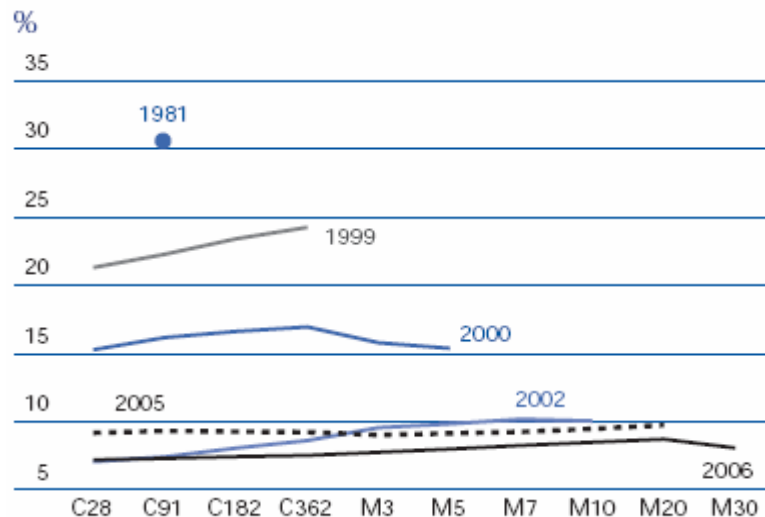
## Section II

### Positive factors of IMSS Reforms

#### 5) Development of \*domestic financial markets

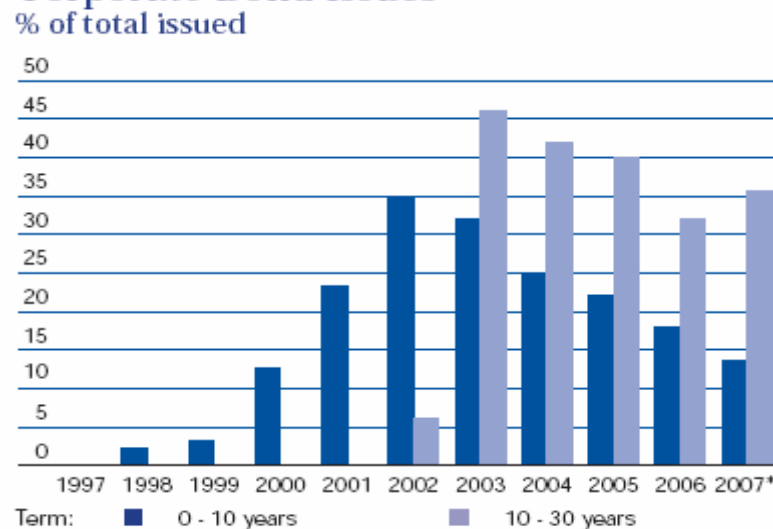
A positive correlation exists between institutional investment such as pension funds, and the development of financial markets. On the demand side, the contribution of SIEFORE to the effort to extend the curve of government interest rates has created, a benchmark for the placement of corporate bonds. In addition, the SIEFORE, as institutional investors, has registered a growing demand for corporate debt instruments.

Evolution of the Interest Rate Structure in Mexico



Source: BBVA Bancomer

Siefore Share in Domestic Corporate Bond Issues



Term: ■ 0 - 10 years ■ 10 - 30 years

\* Data through June

Source: BBVA Bancomer with Consar data

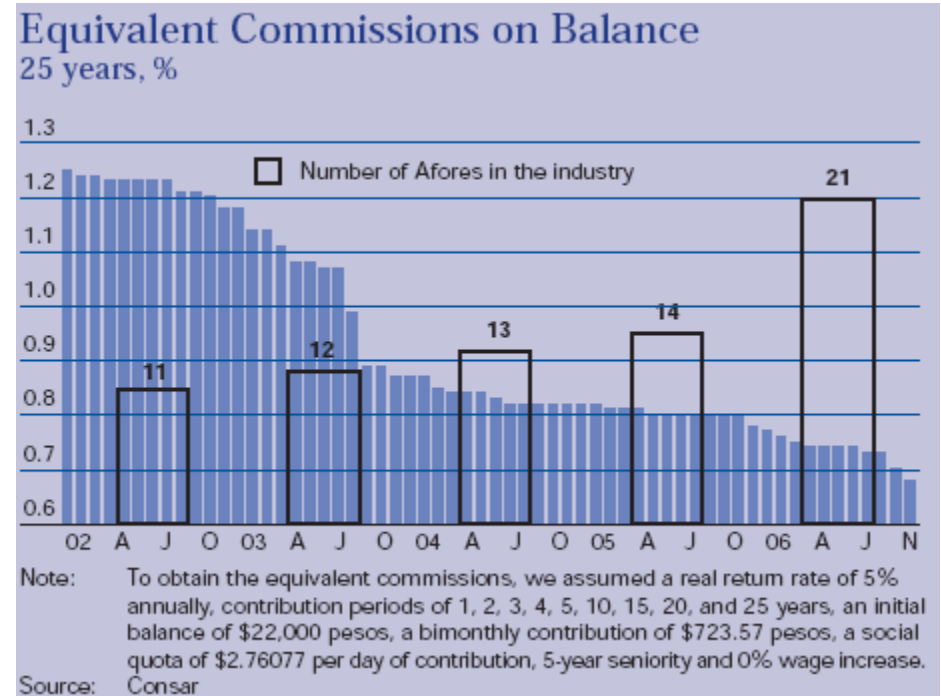
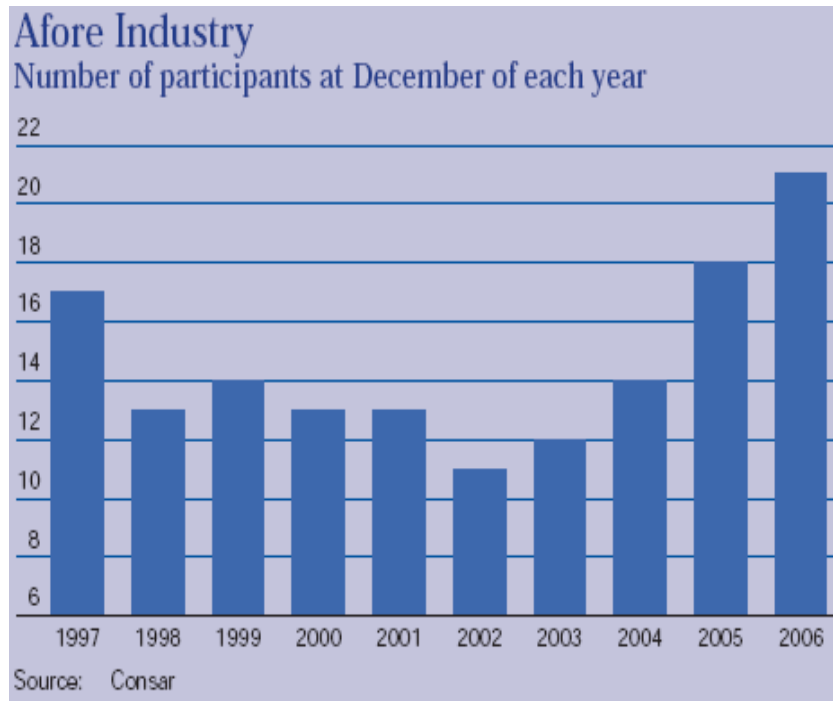


## Section II

## Positive factors of IMSS Reforms

**6) Increasing competition that promotes lower commissions**

- As of March 15, 2008, the commissions for cash flow will be eliminated and the AFORE will only be allowed to charge commissions on the account balance
- Workers will only have the right to transfer their individual account from one AFORE to another after a year or only to an Afore whose investment management funds have registered higher returns



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Section II

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Section III

## **Challenges to 2nd generation reforms**

Section IV

## **Annex**

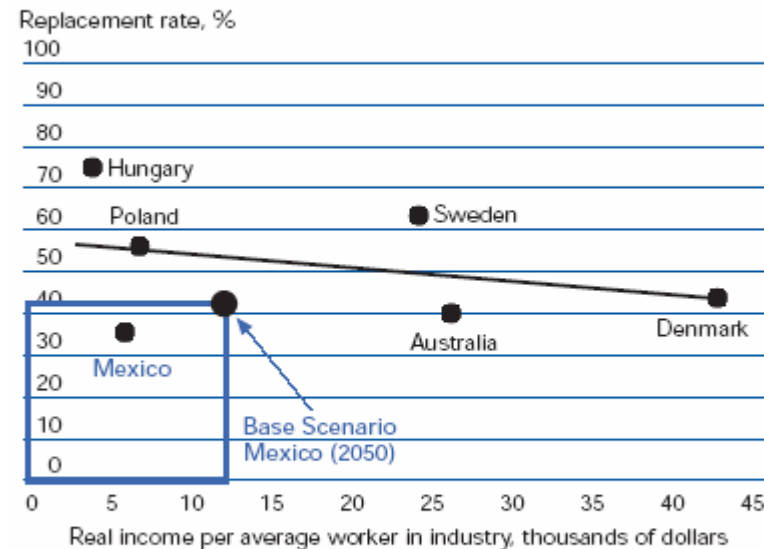
## Section III

## Some challenges to 2nd generation reforms

## 1) Modest replacement rates

- The replacement rates that the IMSS defined-contribution plan will offer, will be relatively modest. These will be, on average, 43%, which is lower than the 52.7% average for the OECD countries.

### Defined-contribution Pension Systems Replacement rates by income level, 2002\*



\* Considers individual average lifetime earnings (100% contribution density) and the income of an average worker in industry (equivalent to 3.9 minimum wages in the case of Mexico).

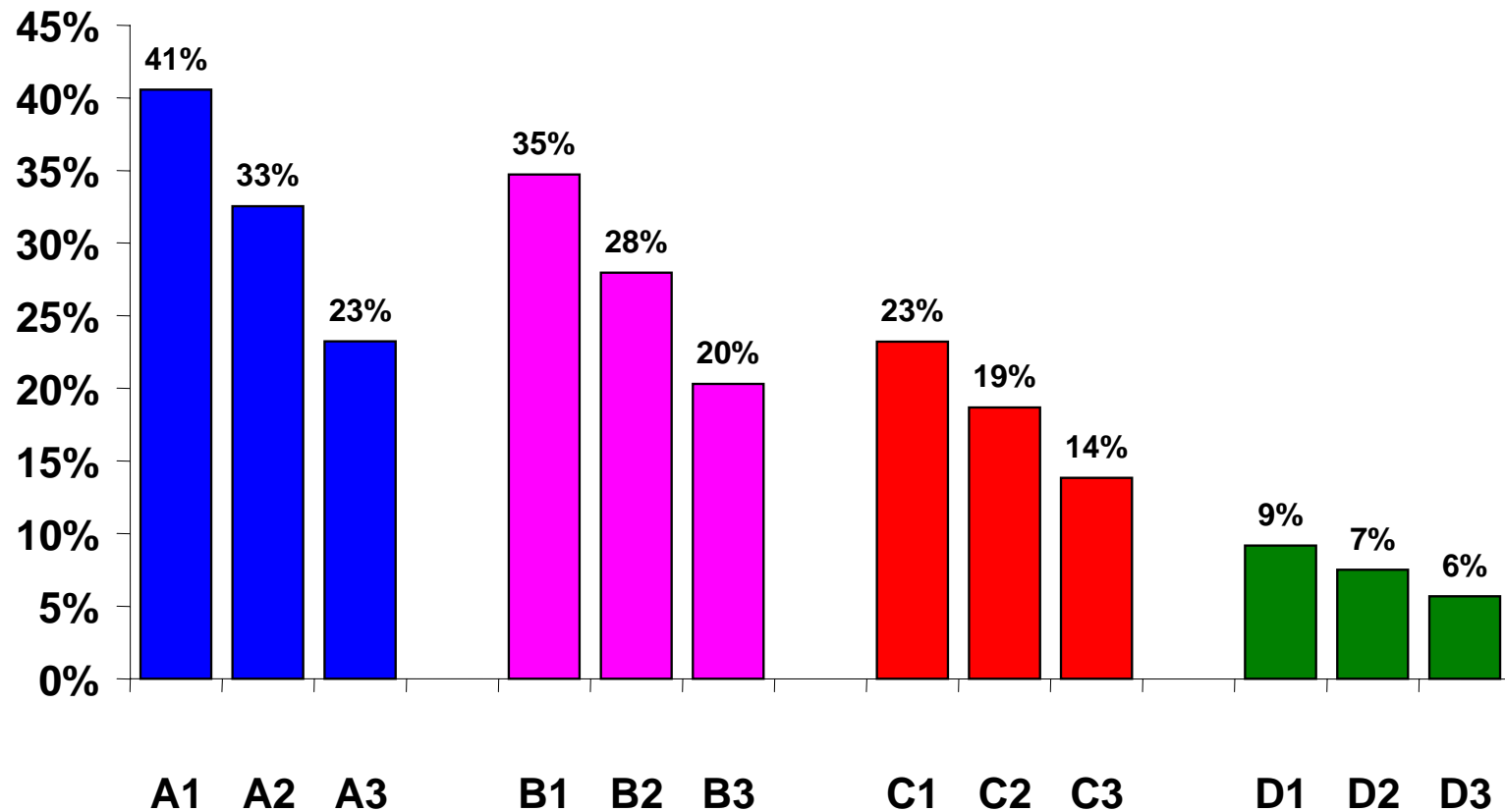
Source: BBVA Bancomer and OECD (2006), Pensions at a Glance

## Section III

## Some challenges to 2nd generation reforms

Higher \*density of contribution means higher replacement rates

Replacement rate (%), Base scenario 2050



\* / Replacement rate over the last year

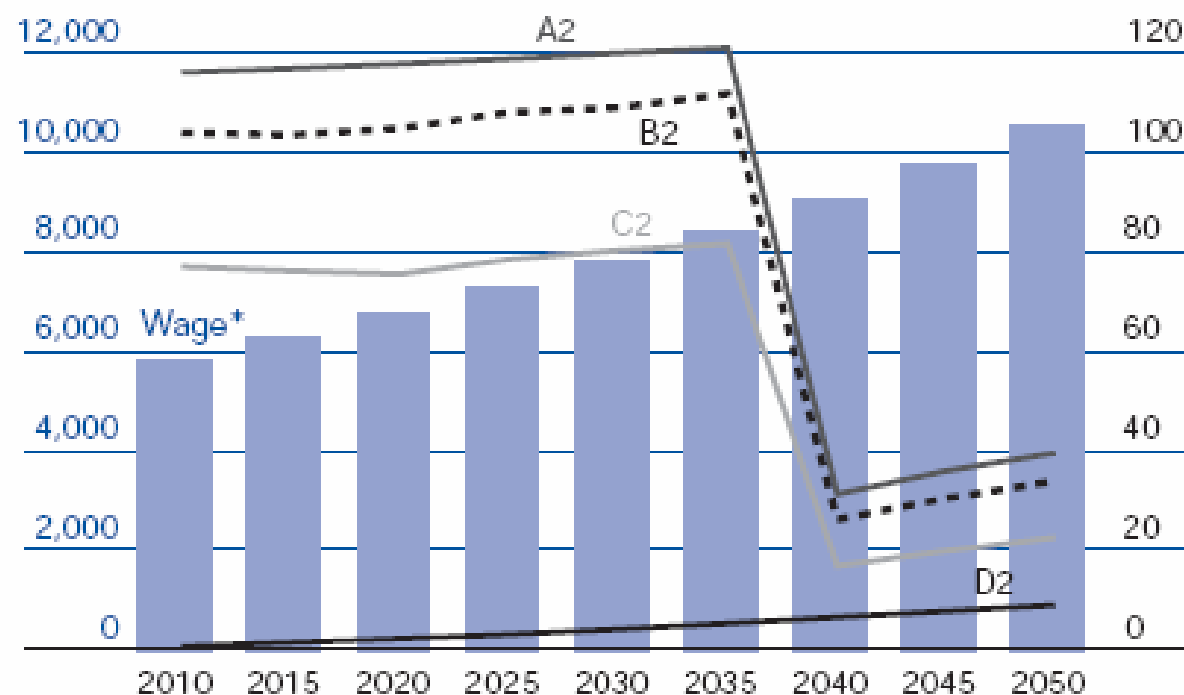
## Section III

### Some challenges to 2nd generation reforms

#### The system projects modest replacement rates

### Replacement Rate in 2050

% over the last 10 years, case: affiliate men earning 2MW



\* Real average wage for determining monthly contribution to IMSS (pesos)

Source: BBVA Bancomer

## Section III

### Some challenges to 2nd generation reforms

It **is** necessary  
to increase  
contributions

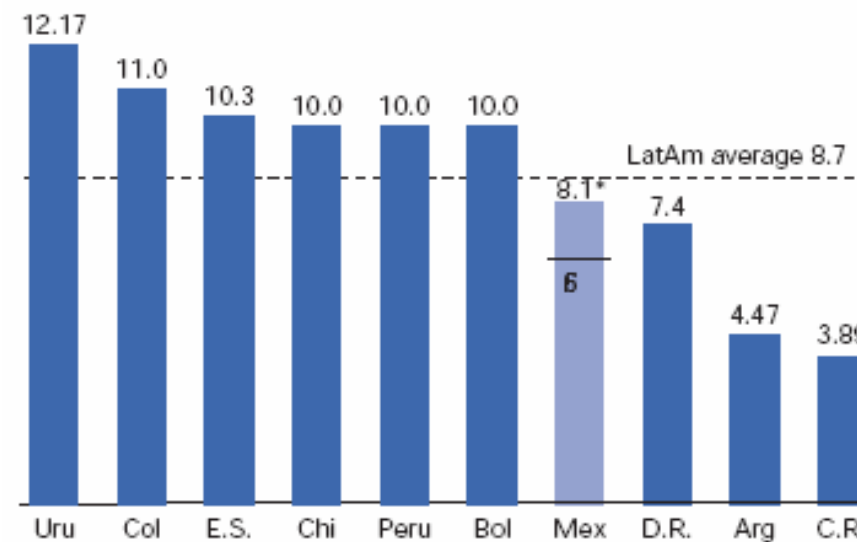
\*Chile or LATAM average?

\*Considering housing account?

Risks: labor force  
could become  
costly, discourage  
employment

Mexico has  
lower  
contributions  
than **Latam?**  
average

Contribution Rates for Capitalization  
% of worker's income



\* Contribution for RCV 6.5% + social quota of 5.5% of the SMGVDF for each day of work (equivalent to 1.6% of the wage of an average worker earning 3.5 minimum wages)

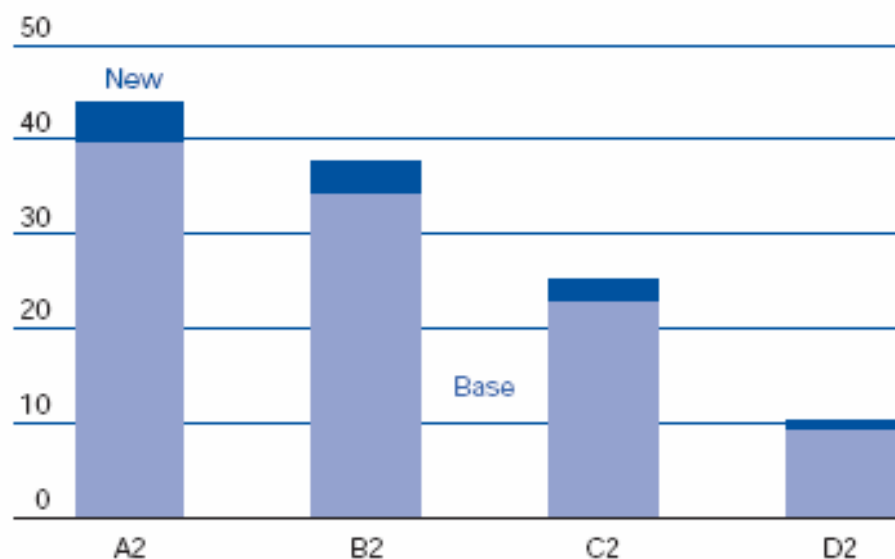
Source: AIOS Bulletin, Table No. 32 (December 2006)

## Section III

## Some challenges to 2nd generation reforms

¿How much will replacement rates increase with 1% of additional contributions?

Effect of Increasing Mandatory Contributions by 1 percentage point  
Replacement rate in 2050\*, % last 10 years



\* Case of non-assigned affiliate men earning 2 minimum wages

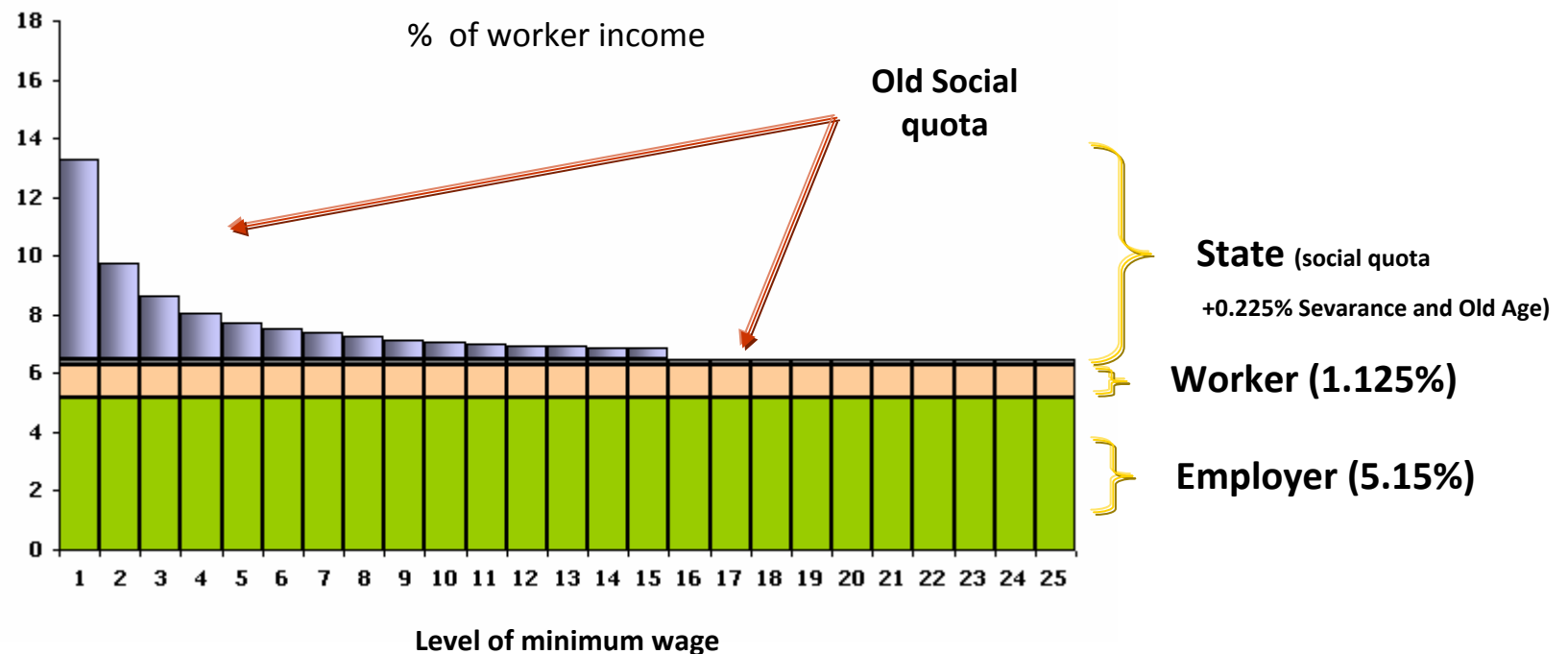
Source: BBVA Bancomer

## Section III

## Some challenges to 2nd generation reforms

**Social quota:** A monthly contribution by the federal government to the individual account for each day paid in and whose initial price was equivalent to 5.5% of the general current minimum wage in Mexico City on July 1st, 2007. The fixed value of that price will be updated quarterly per the national consumer price index.

**Contributions for Retirement, Severance at Old Age and Old Age (RCV) Insurance**





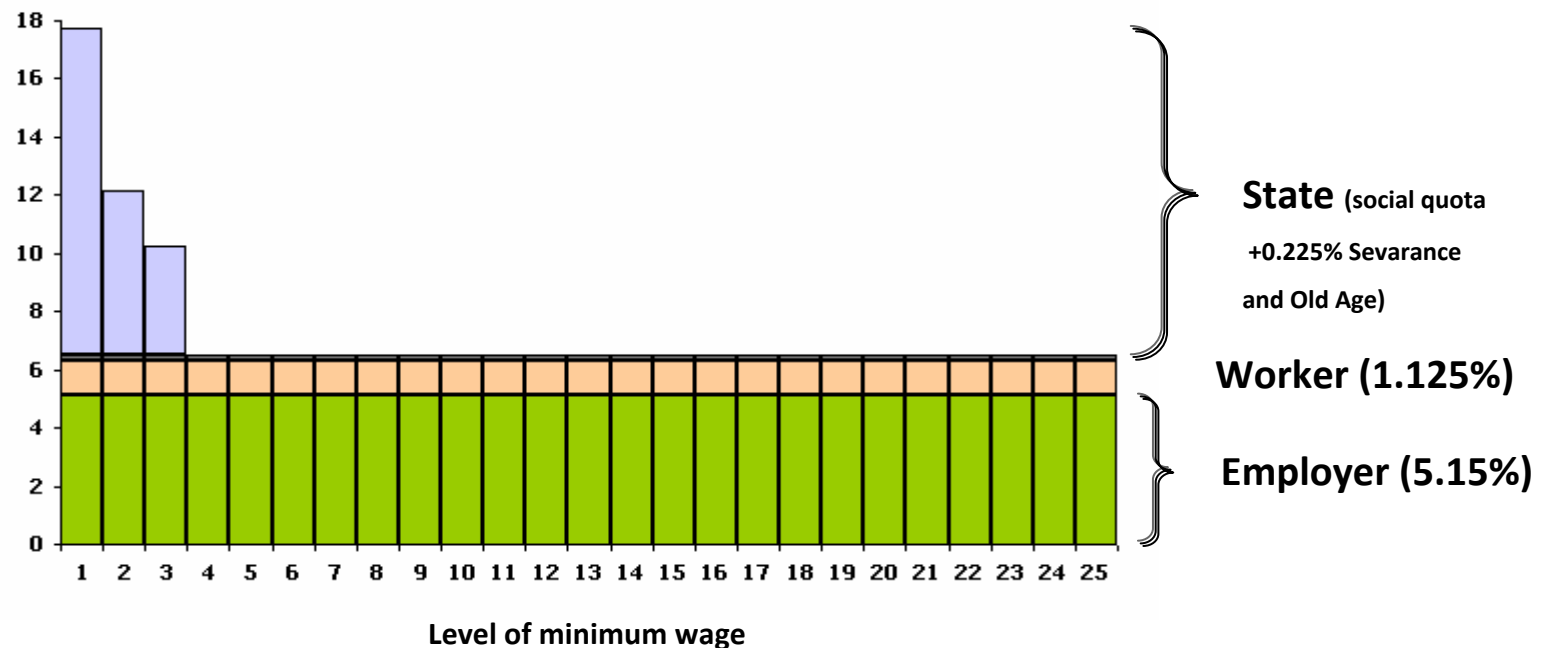
## Section III

## Some challenges to 2nd generation reforms

**In may 2009, a redistribution of government subsidies (“Social quota”) was implemented.** From that date it has been concentrated only to low income workers, lower to 3 minimum wages.

### Contribuitons for Retirement, Severanece at Old Age and Old Age (RCV) Insurance

% of worker income

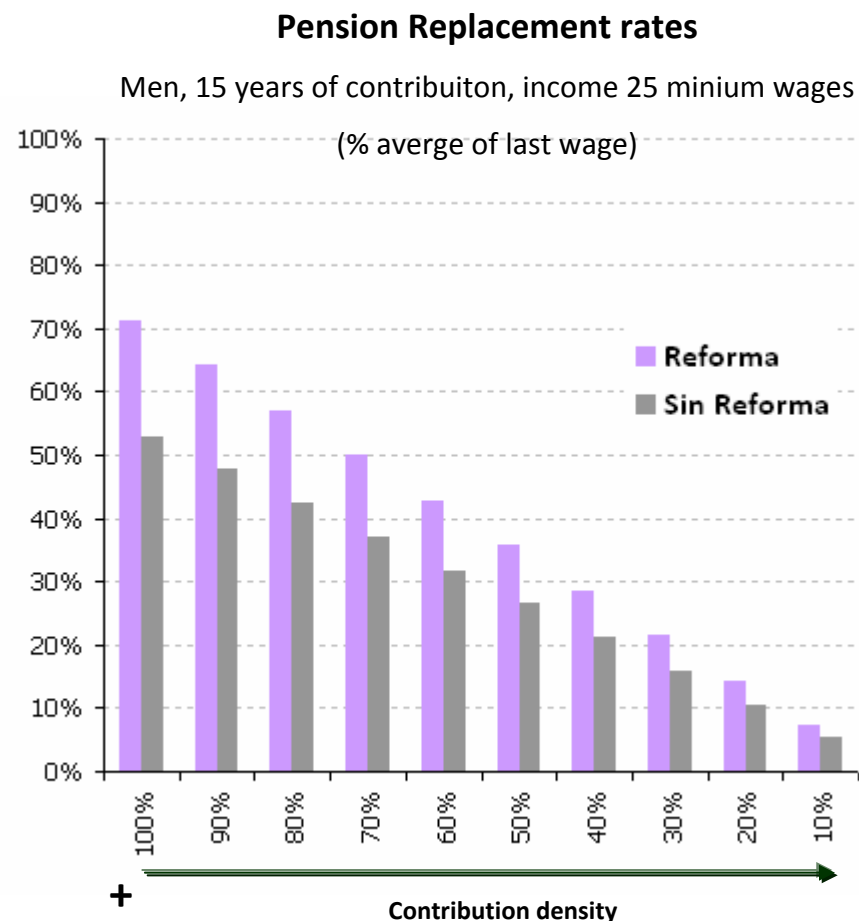


## Section III

### Some challenges to 2nd generation reforms

#### Redistribution of “social quota” increases replacement rates

- Positive and differentiated impact of the “social quota” in the contributions of lower-income workers.
- More contributions means better replacement rates for those workers. Also, a higher contribution density increase even more the replacement rates.
- The increase in benefits for those groups does not cause \*sustainable fiscal costs.



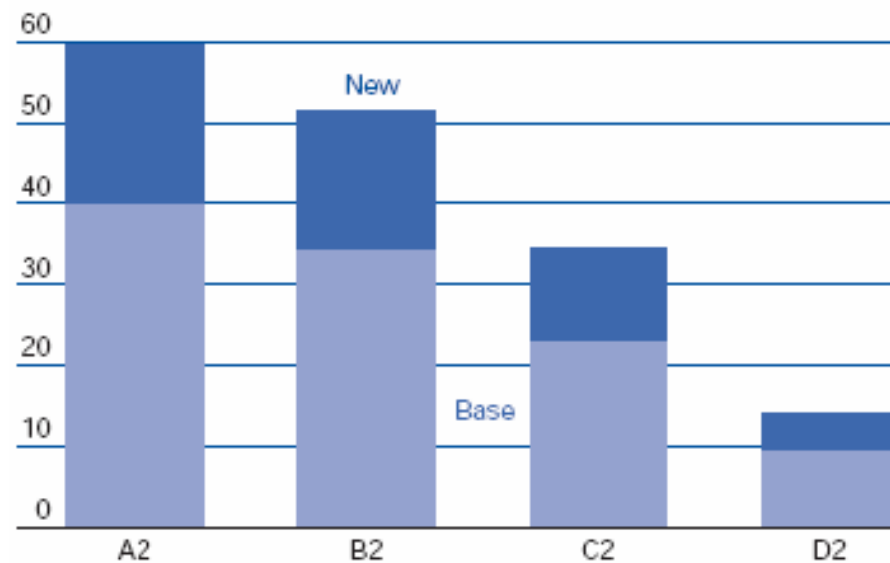
## Section III

## Some challenges to 2nd generation reforms

**How to increase mandatory contributions?**

Bringing mandatory IMSS contributions \*in line with those of the ISSSTE by increasing them by 4.8%. This increase would elevate Mexico to contribution rates more in accordance with its development level.

Effect of Increasing  
RCV Contributions 4.8%  
Replacement rate in 2050, % last 10 years\*



\* Case of non-assigned affiliate men  
Source: BBVA Bancomer

## Section III

### Some challenges to 2nd generation reforms

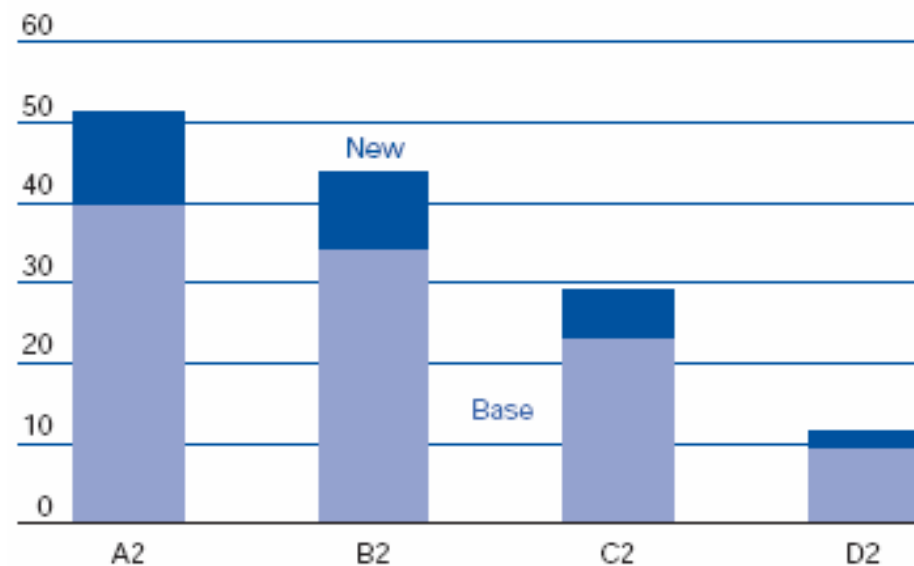
**With current  
investment  
regime**

**Expected return is low**

**Lower replacement rates**

**Flexibility is  
necessary**

**Effect of a Yield Increase of 1 pp**  
Replacement rate in 2050, % last 10 years\*



\* Case of non-assigned affiliate men earning 2 minimum wages

Source: BBVA Bancomer

## Section III

## Some challenges to 2nd generation reforms

**July, 2007 main changes and innovations in investment regime:**

- The number of basic SIEFORE was expanded from two to five. This expansion is only for worker under 56 years old, and therefore basic Siefiore 1 remains unchanged.
- The affiliates can only choose to transfer to a Siefiore with lower risk.
- Greater exposure to variable income assets. This will only be through protected capital notes and/or other instruments that are based on the permitted stock market indexes or sub-indexes and some in individual stocks.
- The risk exposure in variable income securities will be controlled by the level of value at risk (VAR) of the Siefiore' net assets

**Modifications to the Siefiore Investment Regime**

Siefiore	Var. income <sup>1</sup>	Secur.inst. <sup>2</sup>	Risk <sup>3</sup>	Age group <sup>4</sup>	Accounts <sup>5</sup>
<b>Existing</b>					
Basic 1	0	10	0.60	over 55	1.1
Basic 2	15	15	1.00	46 to 55	3.1
<b>New</b>					
Basic 3	20	20	1.30	37 to 45	5.7
Basic 4	25	30	1.60	27 to 36	9.2
Basic 5	30	40	2.00	under 27	18.7
<b>Voluntary savings</b>	<b>30</b>	<b>40</b>	<b>2.00</b>	<b>All groups</b>	<b>37.7</b>

- 1 Maximum % in variable income assets
- 2 Stock market instruments. Instruments or securities that represent credit rights. % of net assets
- 3 Risk parameter (VAR as % of assets)
- 4 Target age group (years)
- 5 Potential accounts (millions), assuming that the assigned accounts have the same distribution by age as the non-assigned. Figures through March 2007.

## Section III

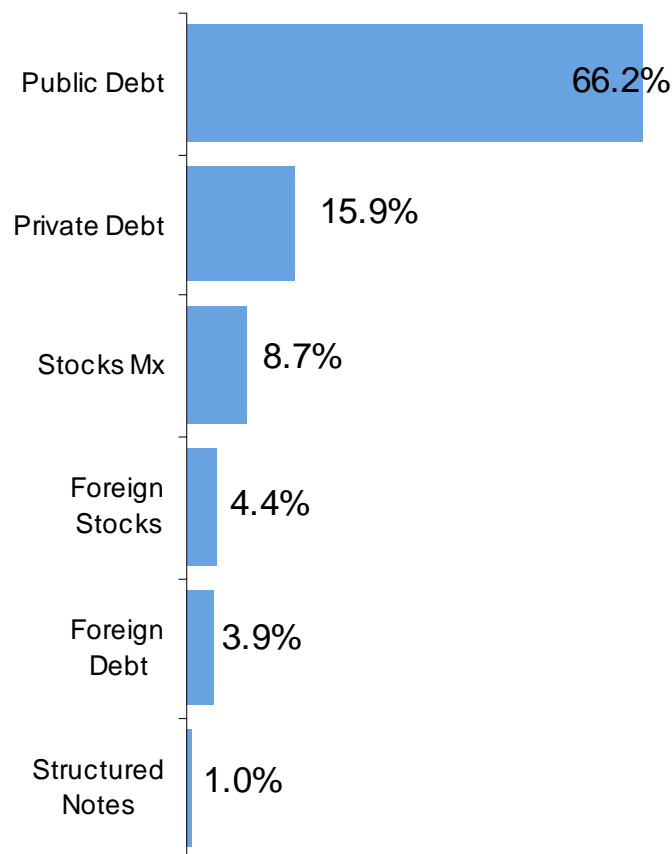
## Some challenges to 2nd generation reforms

**More investment in capital markets one opportunity to increase returns**

- The possibility that some of these pension funds can increase their exposure to a maximum of 30% in equity securities, already offers better conditions and tools for the Siefore to obtain better returns.
- In many developed countries, pension funds invest not only in equities and stock indexes but also in a wide range of asset types, which includes among others: **real estate, infrastructure or private capital investments and expanded to stock indices of emerging economies.**

**Portfolio diversification (% total)**

Source: BBVA Research and CONSAR



## Section III

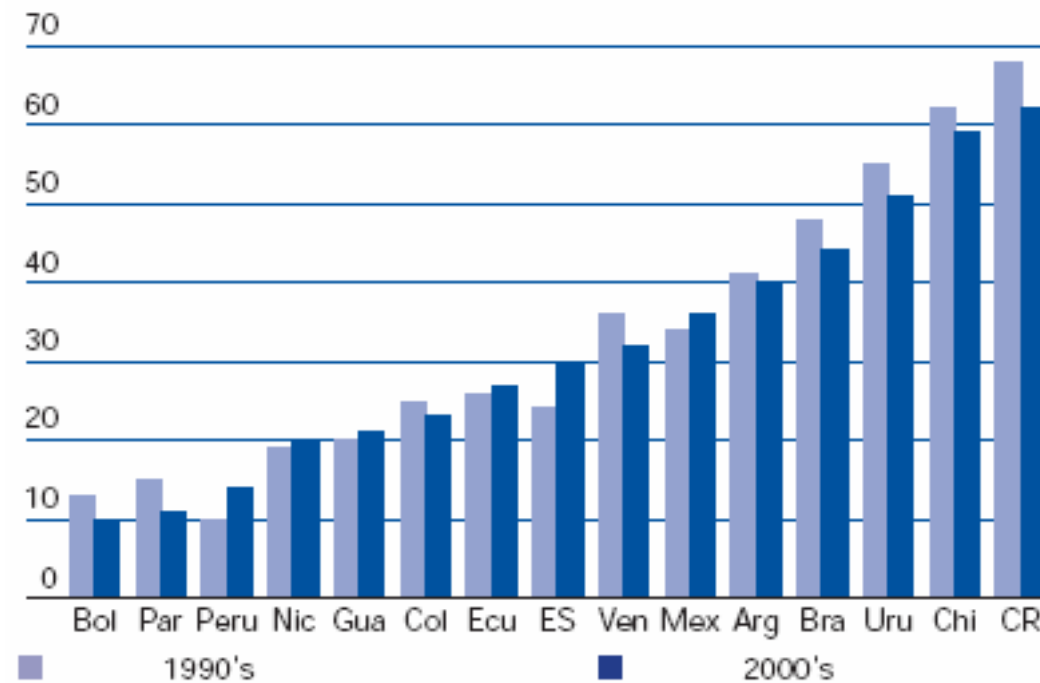
## Some challenges to 2nd generation reforms

**2) Increase coverage of the pension system**

\*Economic factors \*also limit the advances in coverage and in the income level that the pension systems can offer to their affiliates.

### Pension Coverage in Latin America

% of EAP



Source: Rofman and Lucchetti (2006)

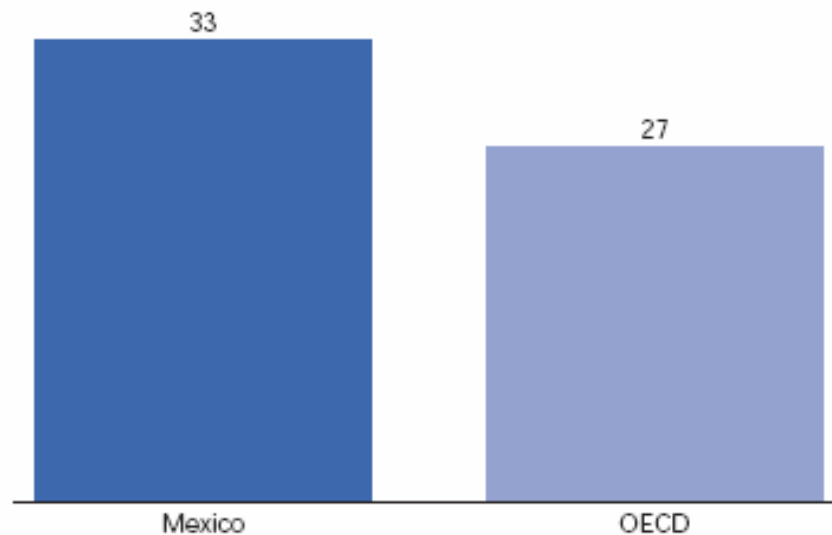
## Section III

## Some challenges to 2nd generation reforms

**Distortions in the labor markets**

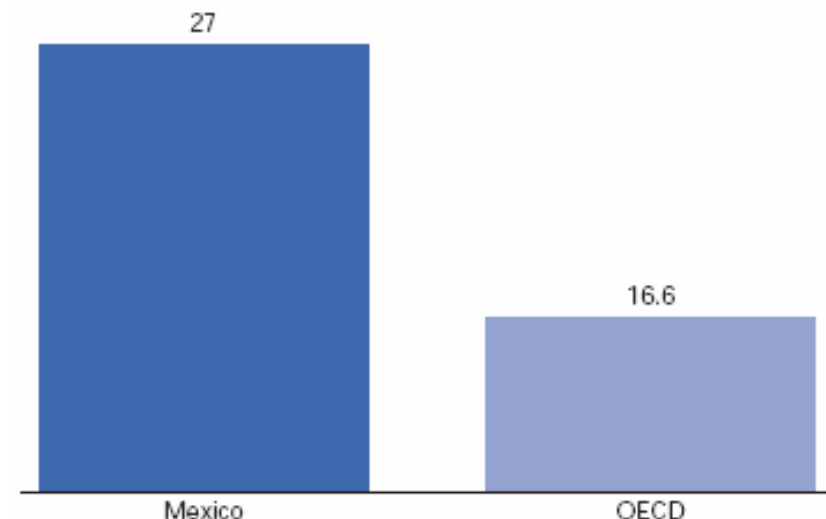
- There are serious obstacles in contracting workers in that it costs almost double to discharge them compared to the average OECD countries
- There is considerable crossing over between the formal and informal sectors which is closely related to \*insufficient economic growth due to institutional deficiencies

Difficulty in Hiring Labor  
2006, Index\*



\* 0 least difficulty, 100 most difficulty  
Source: World Bank, Doing Business 2007

Time for Initiating a Formal Business  
2006, days



Source: World Bank, Doing Business 2007



## Section III

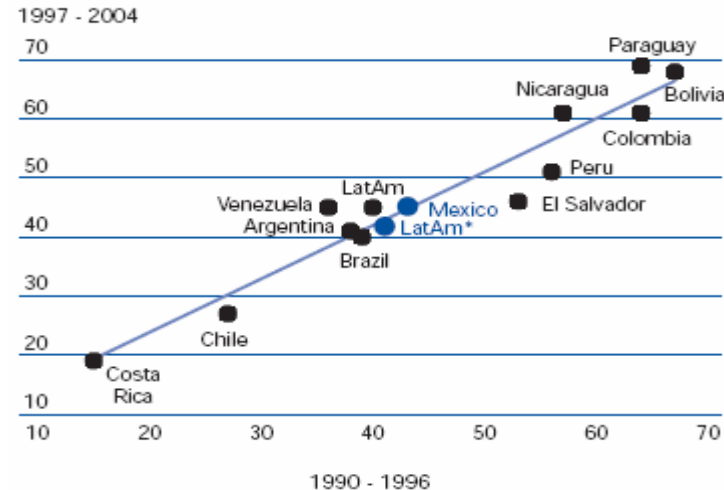
## Some challenges to 2nd generation reforms

**The informal labor market is one of the main obstacles to the pension systems in achieving their objectives on the level of coverage and income replacement.**

- In a defined-benefit system, failure to comply with the number of required weeks of fee payments can mean the permanent loss of rights for the affiliate. In the defined contribution model, it can involve low contribution density and therefore a low balance on hand available for retirement.

### Evolution of Informal Employment in Latin America

1997-2004 vs. 1990-1996, %



\* Weighted average

Source: Inter-American Development Bank, Sociometer, RES-IADB

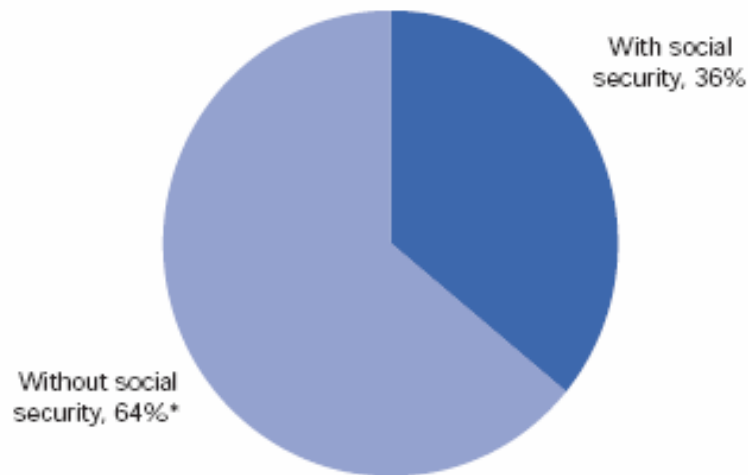
## Section III

## Some challenges to 2nd generation reforms

**2) Increase coverage of the pension system**

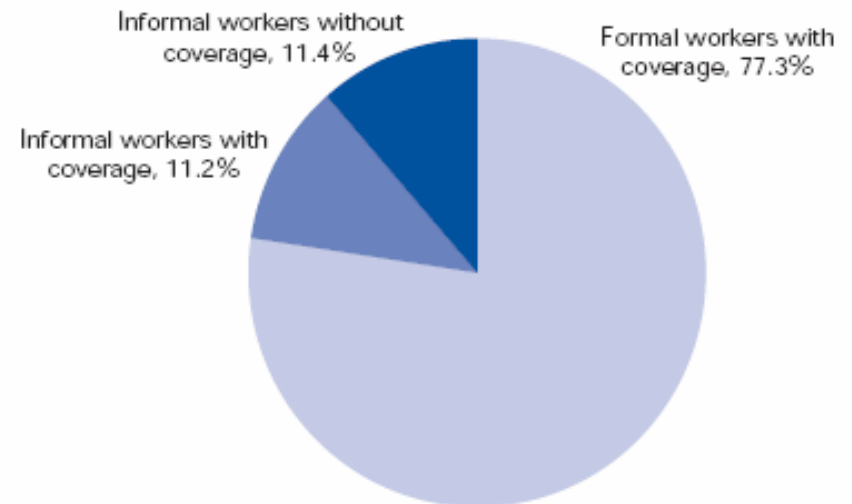
Public policy measures have not been developed that would allow incorporating independent and informal workers in the pension systems, simply due to two facts: 64% of the working population does not have access to social security services and 57% of the actively working population is outside the formal sector

**Employed Population**  
% of total, 2006



\* Estimated based on access to health institutions  
Source: BBVA Bancomer

**Salaried Employed Population**  
% of total, 2050



Source: BBVA Bancomer

## Section III

### **In summary, some challenges to 2nd generation reforms**

**1) The system is incomplete and suffers lack of integration: it does not include public sector, independent workers and informal sector.**

**2) Modest private pensions – With favorable macroeconomic and demographic scenarios, the system shows low coverage and replacement rates for the new generation.**

\* Limitations are not system-idiosyncratic, but are related to lack of flexibility in labor markets that create low contribution densities, high volatility in formal labor, expansion of the informal sector, low wages, etc.

\* There is a low-density group (informal and independent workers) that require specific solutions.

**3) A combination of proposals (portability, higher contributions, more flexibility in the investment regime, consideration of housing account, consideration of independent workers, reduce informality, etc) could allow \* an increase in coverage and an improvement of replacement rates, in particular for low-density affiliates and in some cases for women.**

**4) In the macroeconomic front it is necessary for fiscal reform to support the system's reforms**

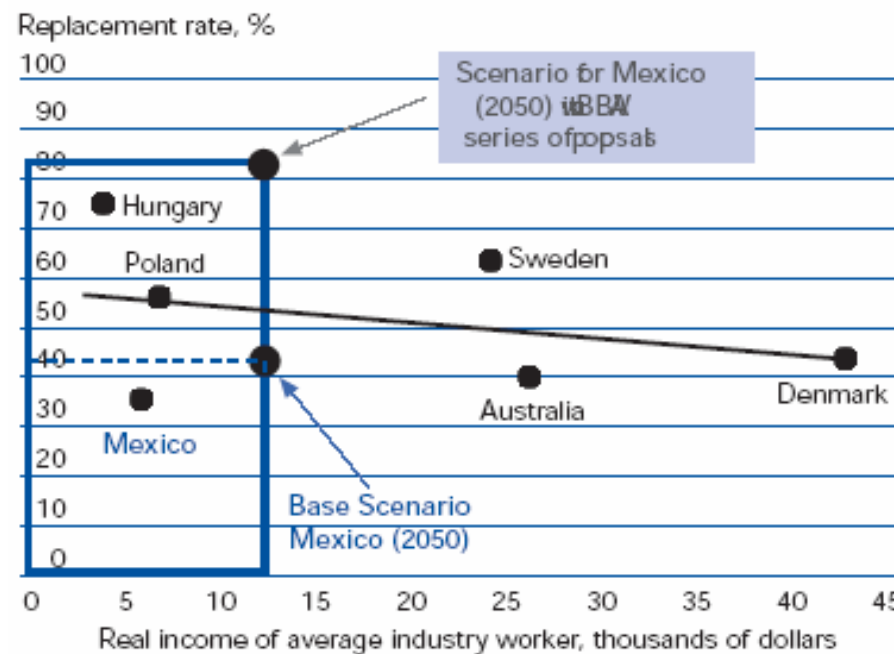
## Section III

## In summary, \*challenges to 2nd generation reforms

**The system has the capacity to deliver better pensions with more adequate contribution\* for the defined-contribution plan**

### Defined-contribution Pension Systems

Replacement rates by income level, 2002\*



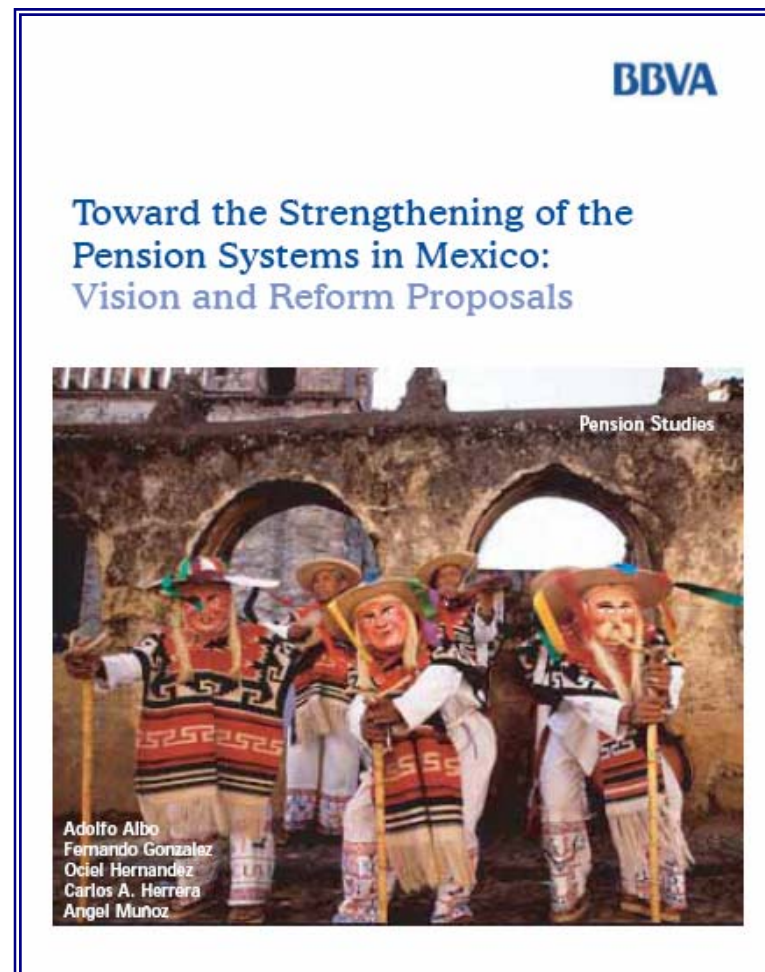
\* Considers individual average lifetime earnings (100% contribution density) and income of an average industry worker (equivalent to 3.9 minimum wages in the case of Mexico).

Source: BBVA Bancomer and OECD (2006), Pensions at a Glance

## Section III

In summary, challenges to 2nd generation reforms

More Research and Proposals.... <http://www.bbvaresearch.com>



# Pension Systems in Mexico

Section I

## **Development of Social Security**

Section II

## **Positive factors of IMSS´s Reforms – Afore´s System**

Section III

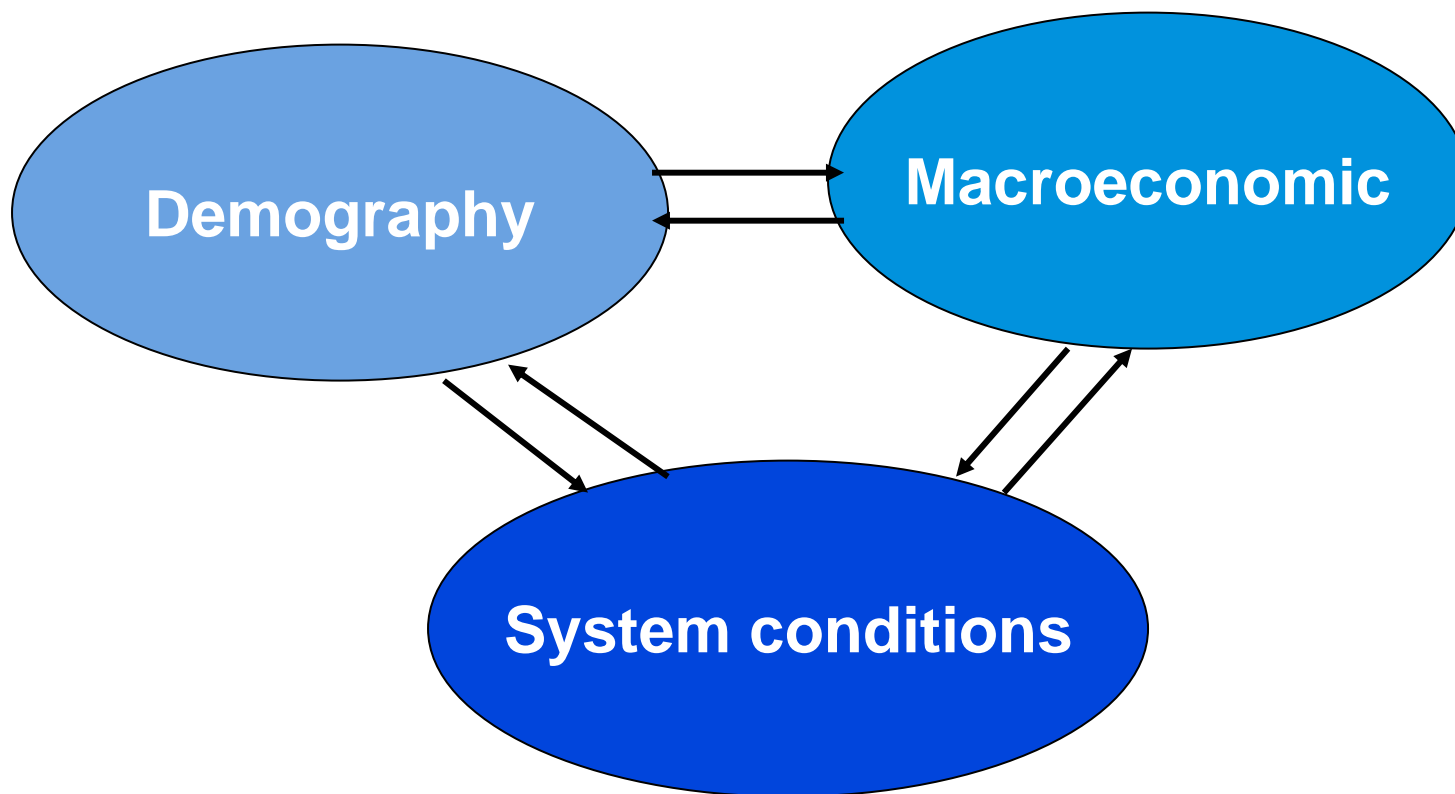
## **Challenges to 2nd generation reforms**

Section IV

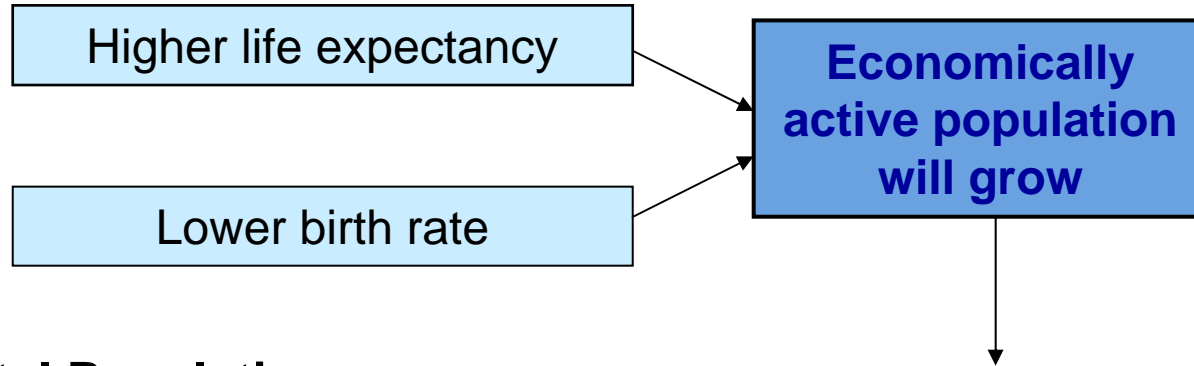
## **Annex**

BBVA has developed a  
Pension System evaluation scheme

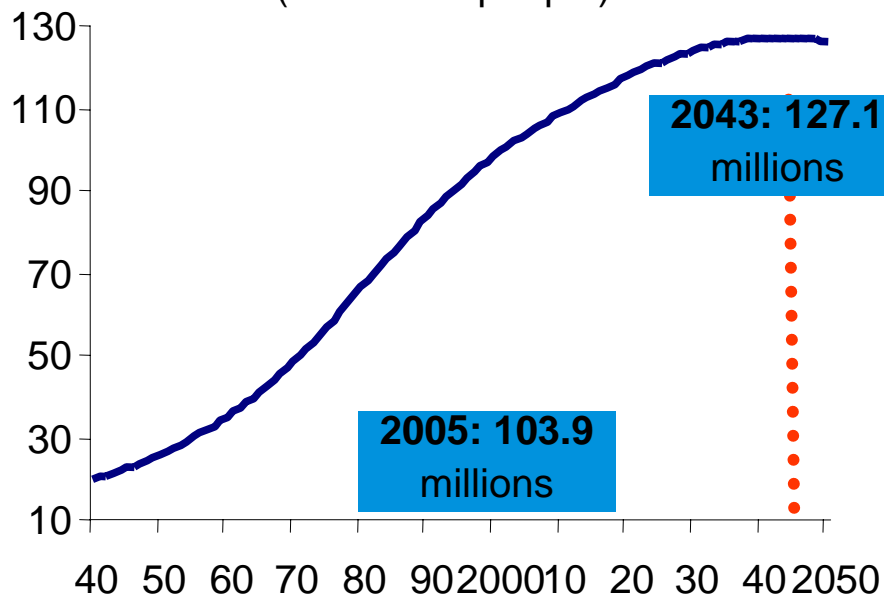
Considering....



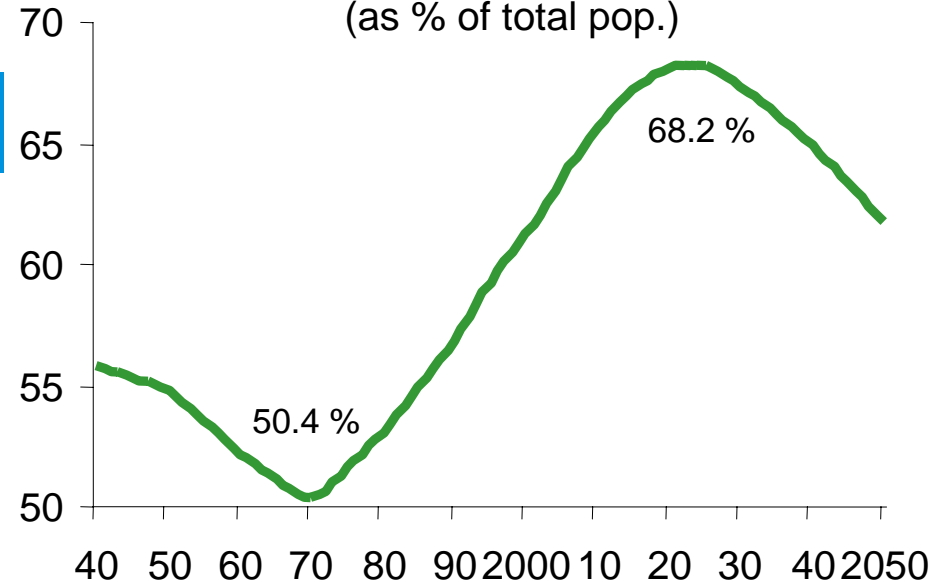
## Population will continue growing until mid-2040



**Total Population**  
(millions of people)



**Economically active population**  
(as % of total pop.)

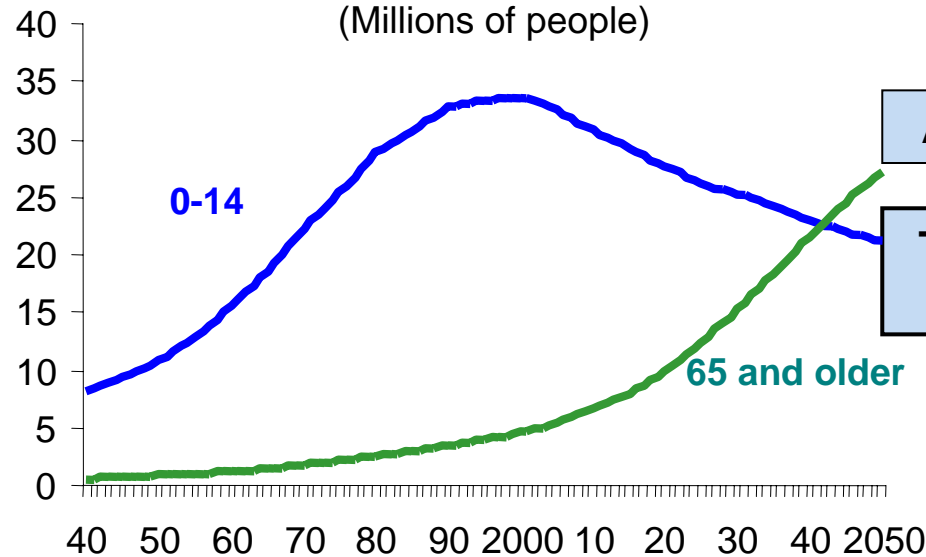




However, the 20's will witness the start of the Mexican population ageing

### Dependent population

(Millions of people)

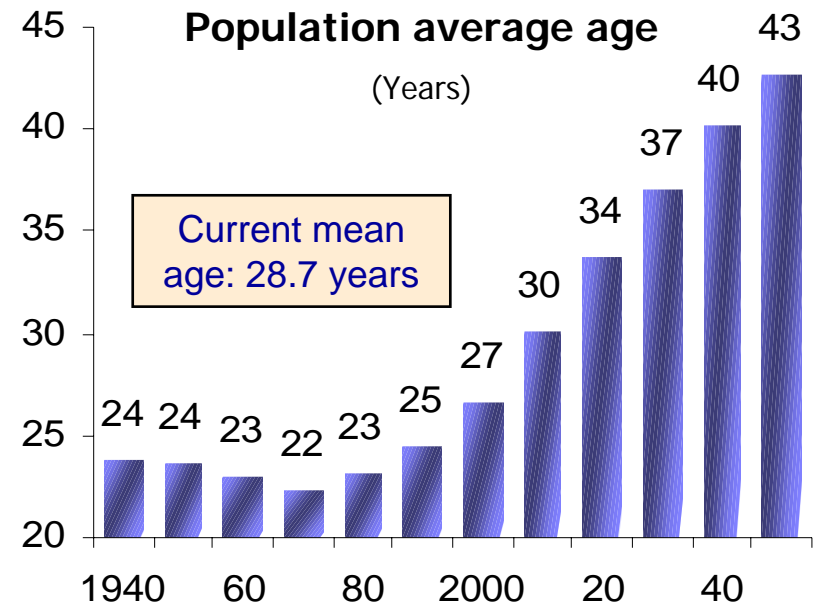


**Adult population will be 6 times higher**

**The share of young population will fall 50%**

### Population average age

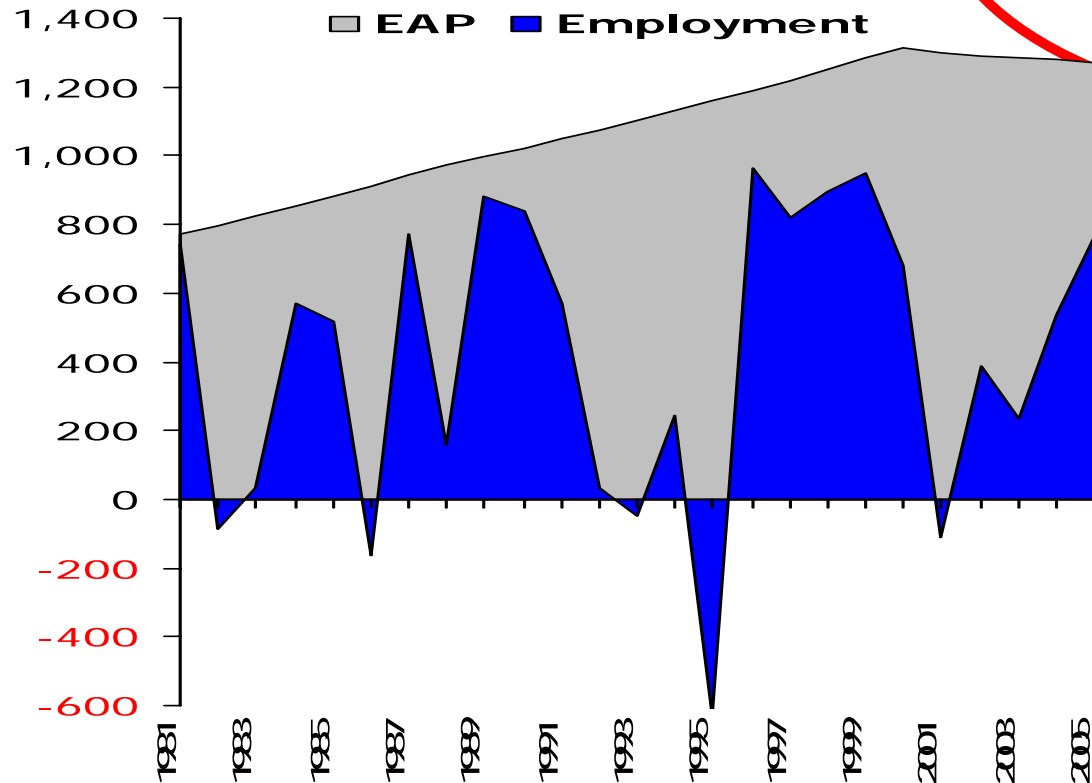
(Years)



## Some challenges for public policy

**Structural labor  
market weakness**

Lack of formal labor demand  
(annual thousands of people)

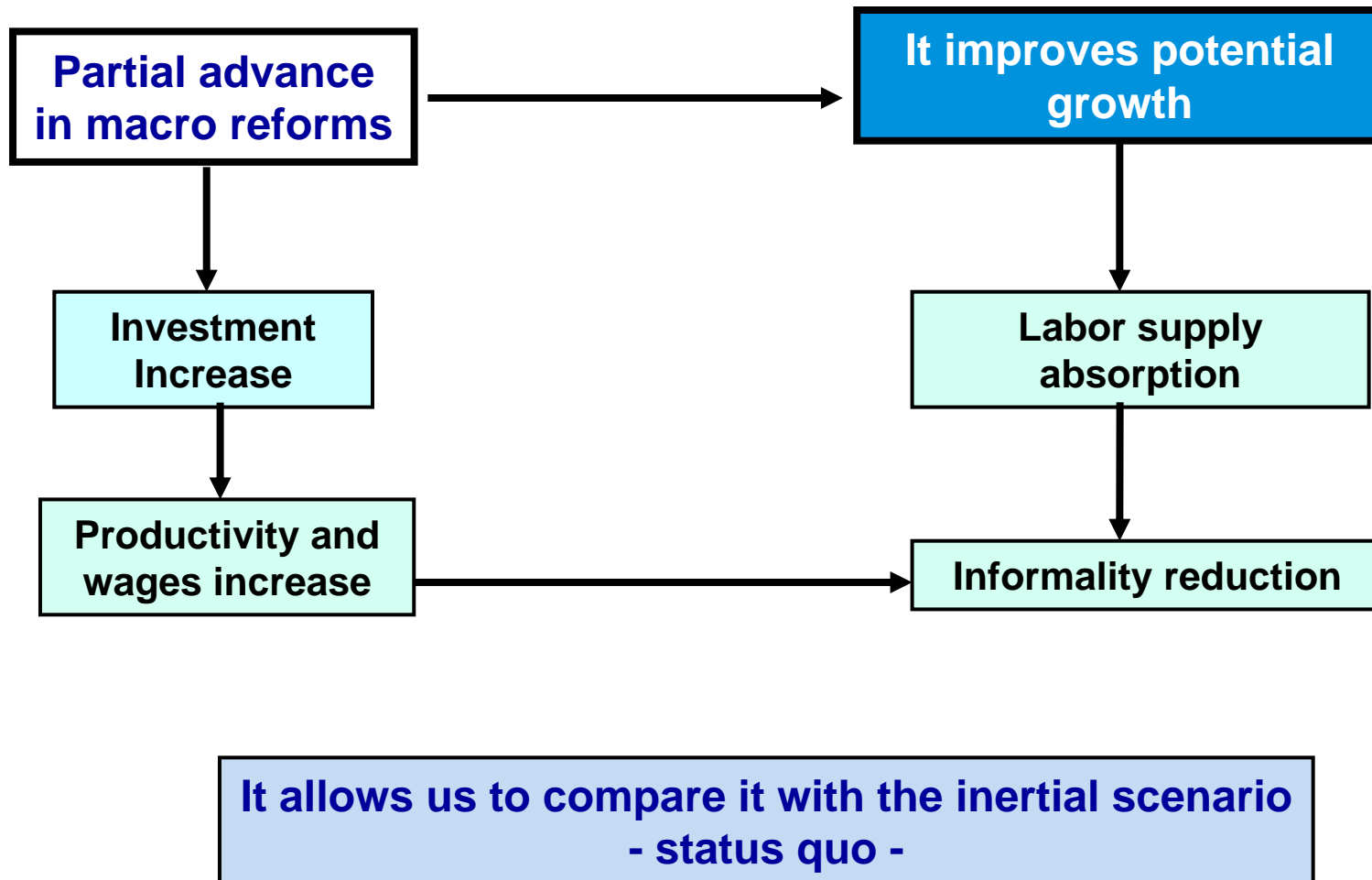


Employment Generation

Informality reduction

Welfare  
Improvement

We have built a feasible and conservative  
macroeconomic (base) scenario

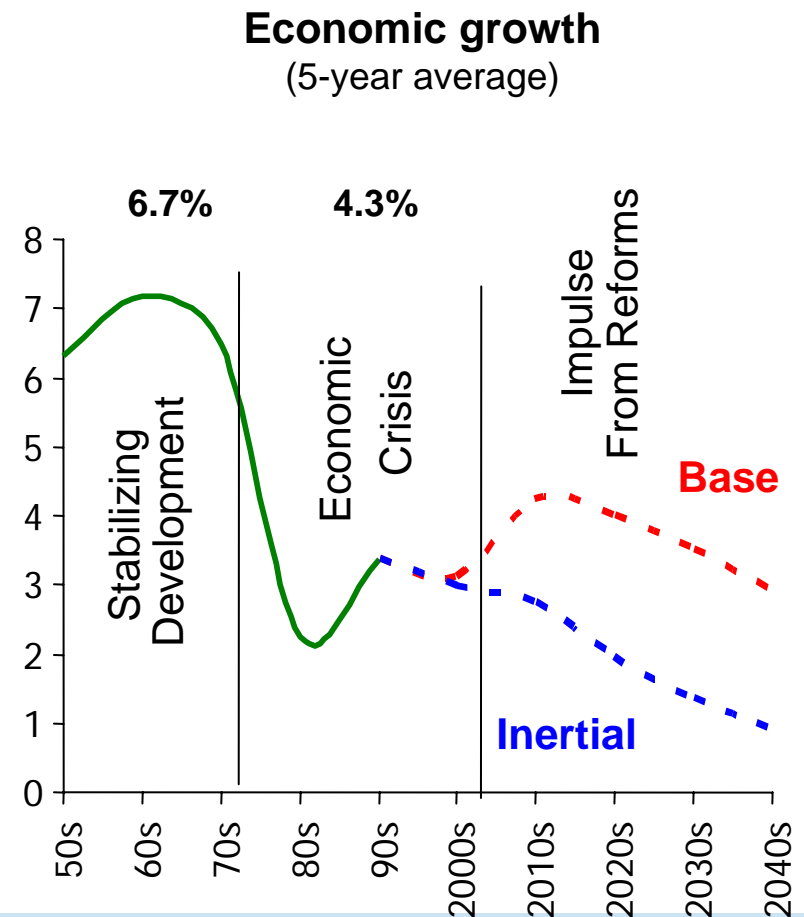
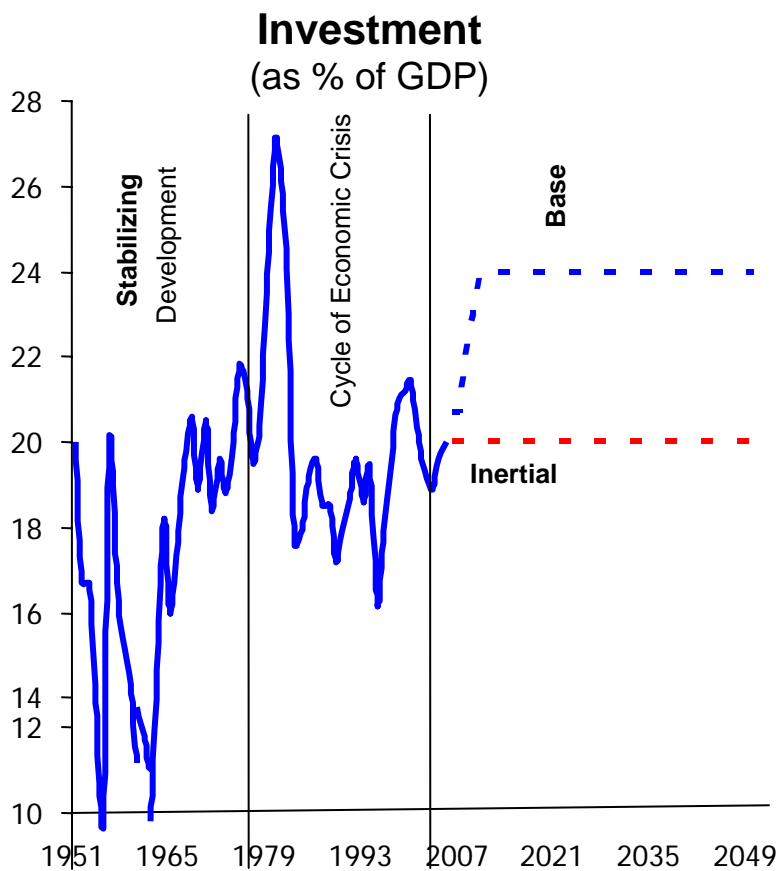


Further investment is necessary:  
economic reforms, a first step

**Investment Increase**  
(24% GDP)



**Higher growth**  
4% in the next 10 years

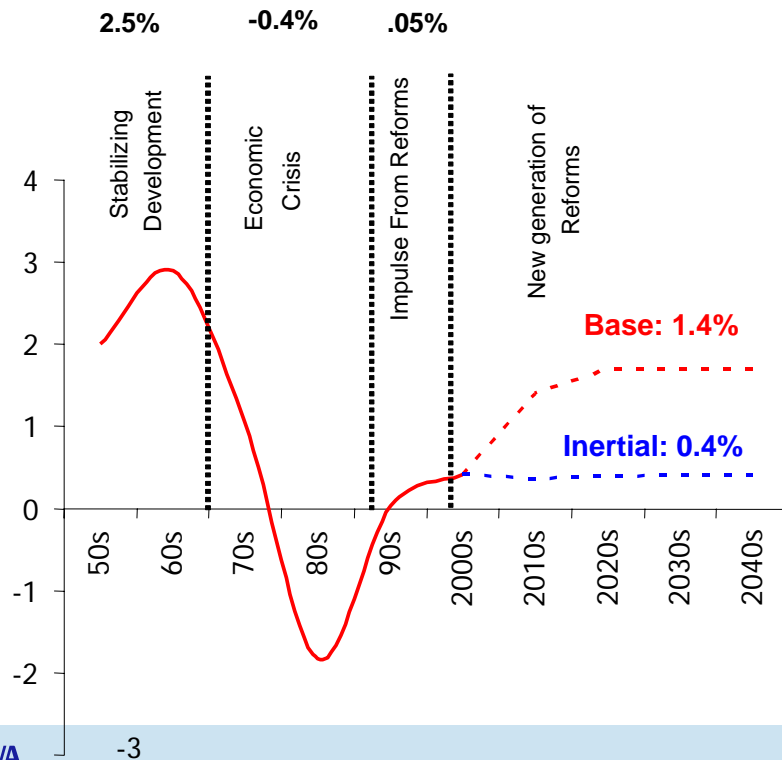


## The higher capital/employment ratio boosts productivity

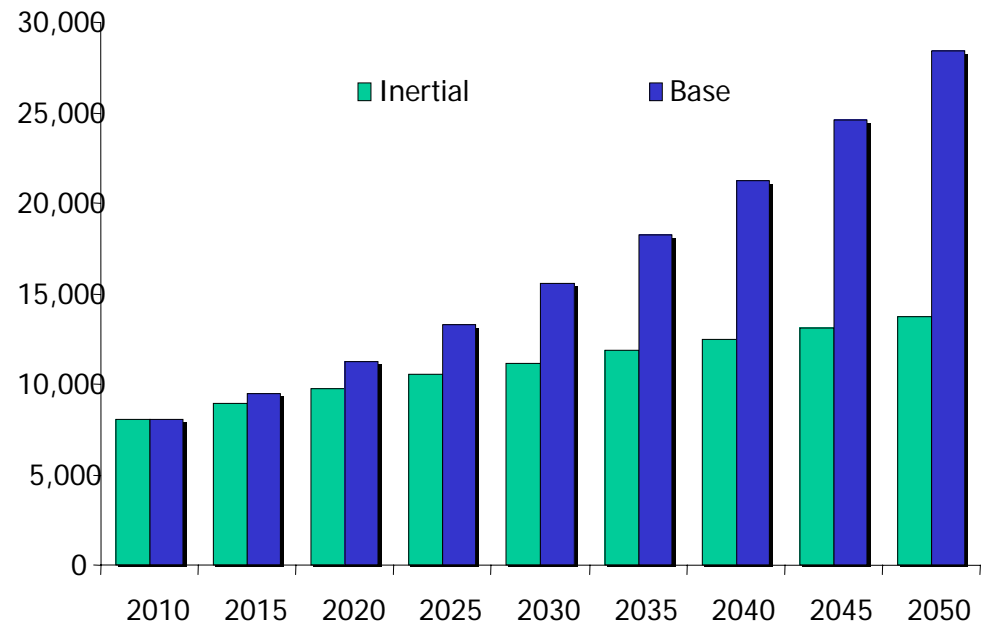
Labor productivity  
increases more  
than TFP

Wage rate increases

Total Factor Productivity (TFP)  
(5-year average)

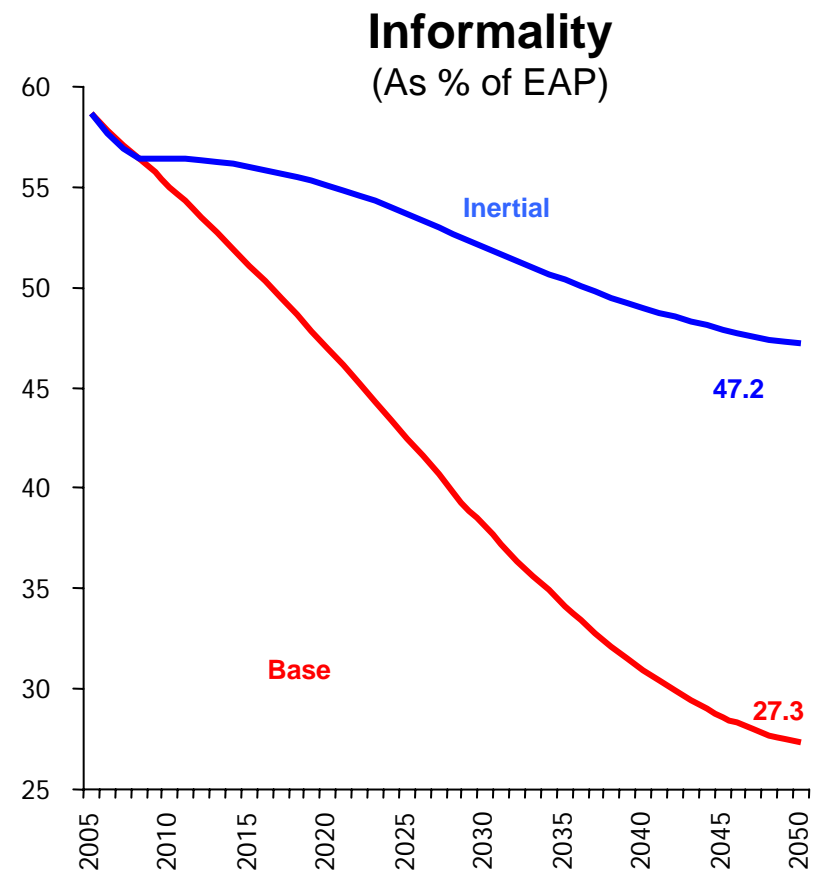
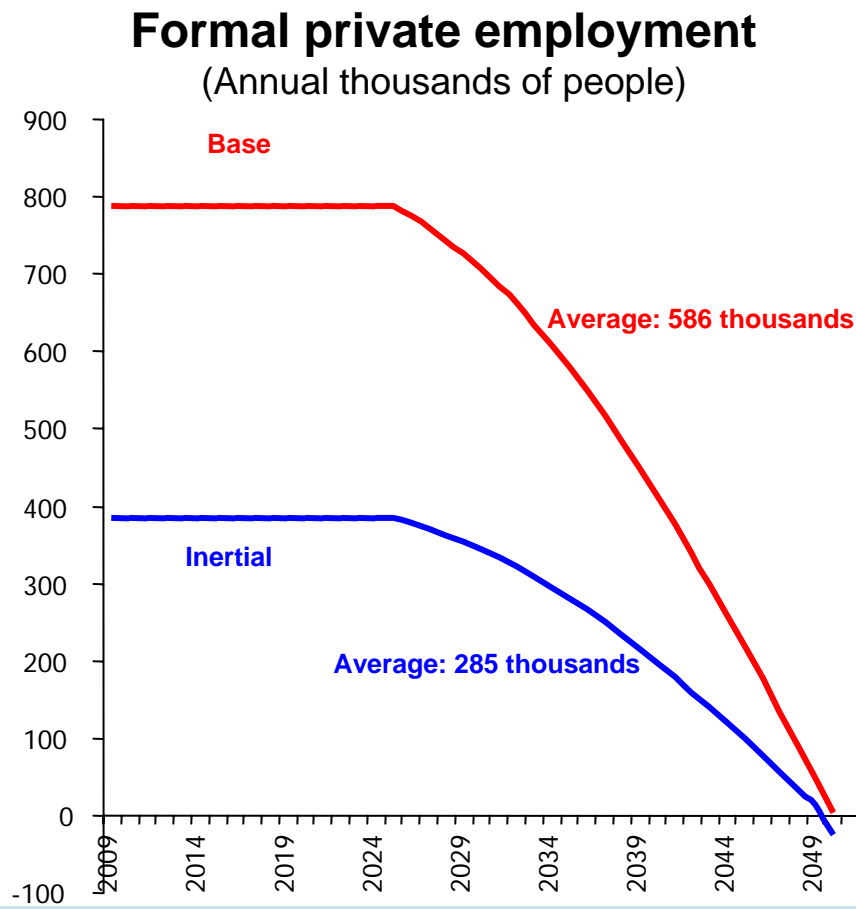


GDP per capita  
(2005 dollars)



Higher GDP and productivity are necessary conditions to lower the current levels of labor informality

### Informality approaches OCDE rate ...



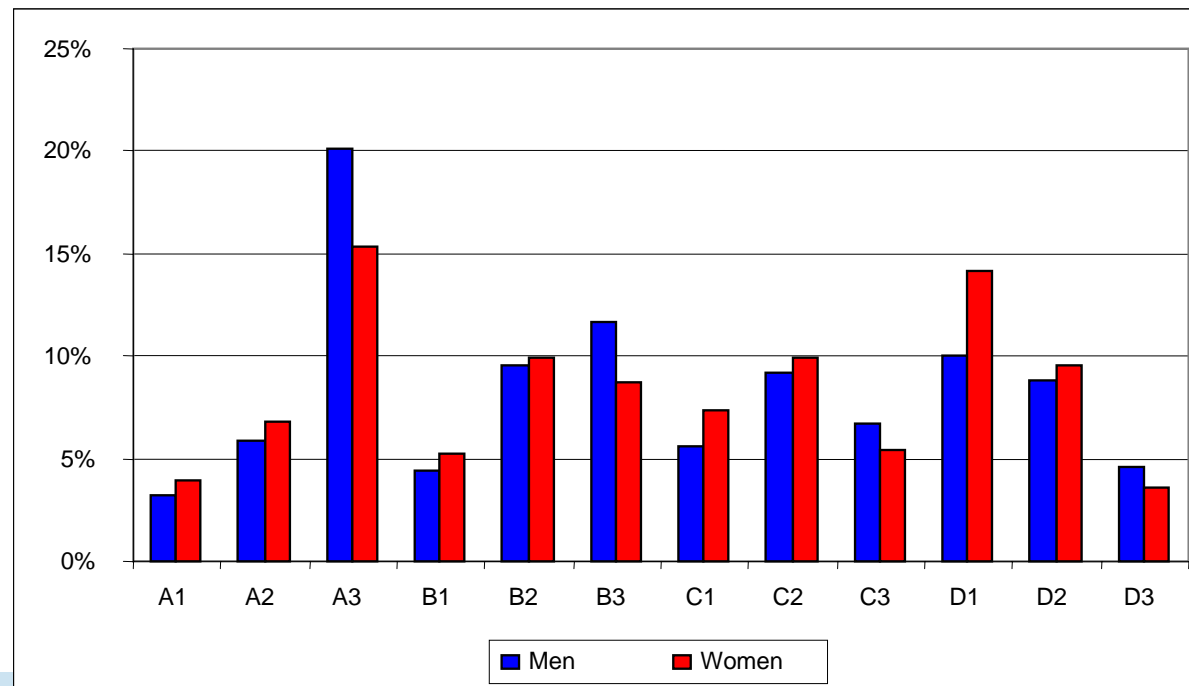
## Density of contribution 4 groups, 3 wage levels, by gender

### Criteria:

- Uniform distribution
- Different assumptions can be modeled
- 1: 1 or less minimum salaries (MS) (33% of affiliates)
- 2: 1 to 2 MS (37% affiliates)
- 3: 3 or more SM (30% affiliates)

**A:** Density 96.2% → 38.5 years of contribution (28% of affiliates)  
**B:** Density 76.2% → 30.5 years of contribution (22% of affiliates)  
**C:** Density 44.5% → 17.8 years of contribution (25% of affiliates)  
**D:** Density 14.8% → 5.9 years of contribution (25% of affiliates)

### Density of contribution distribution, December 2004

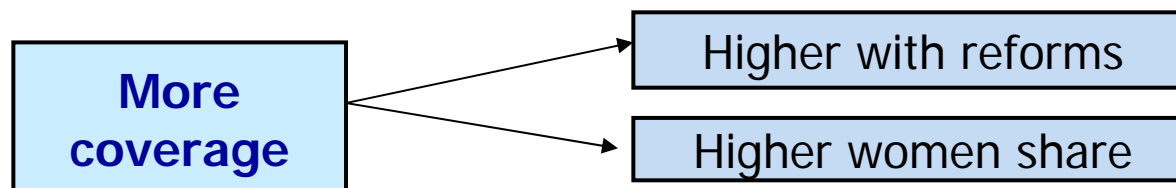


## Key assumptions

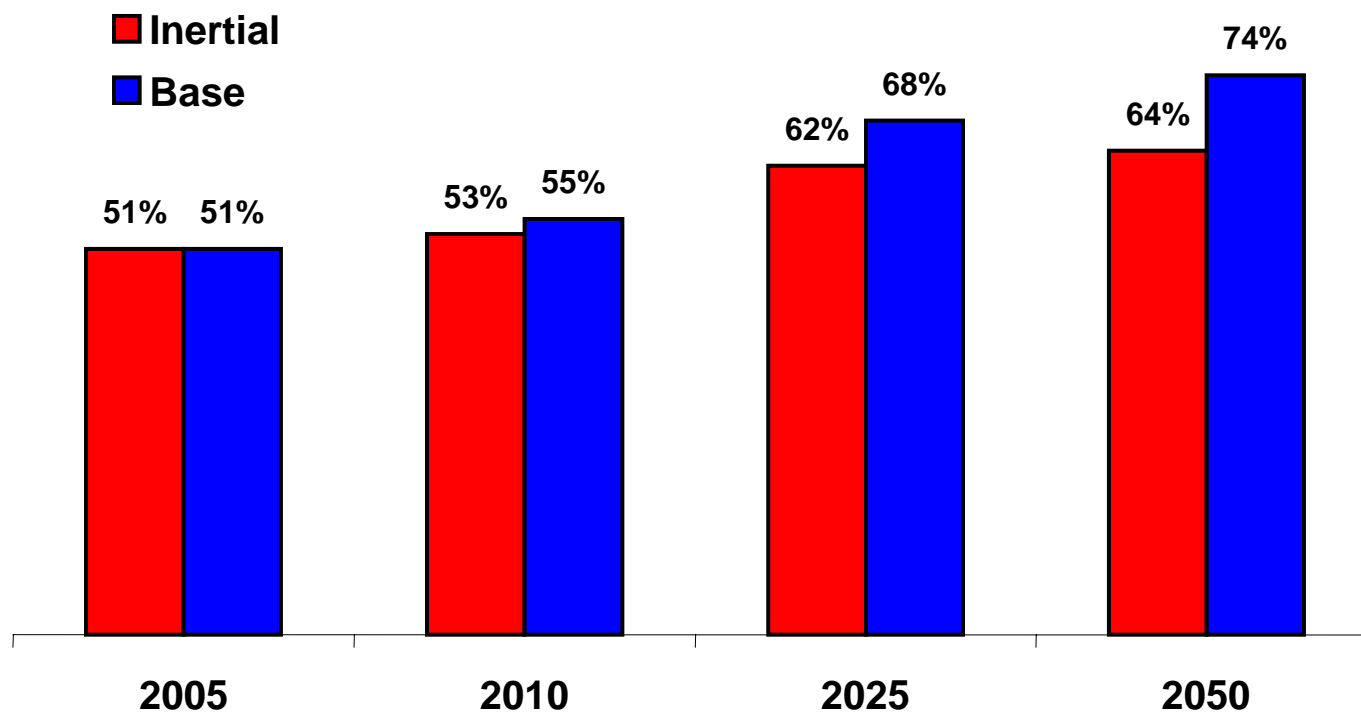
**Affiliation****+ 20-24 years****+ Higher woman participation****Contribution****+ Affiliates distribution stays constant****+ Formality increases (from 39% to 72% in 2050)****+ Group “B” increases 2.0 points C: 3, D:2 and E: 2.5 every 5 years and “C” by 2.5 points****Inertial scenario****From 39 to 45%****-0.5% B and C every 5 years****Contributions****+ According to legislation****Returns****+Individual Account (RCV) 5% (base scenario) and 3.3% (inertial), housing 3%****+Wages 2.8% (base ) vs 1.1% (inertial)****+Commissions 0.2% of contribution, 0.5% over balance**



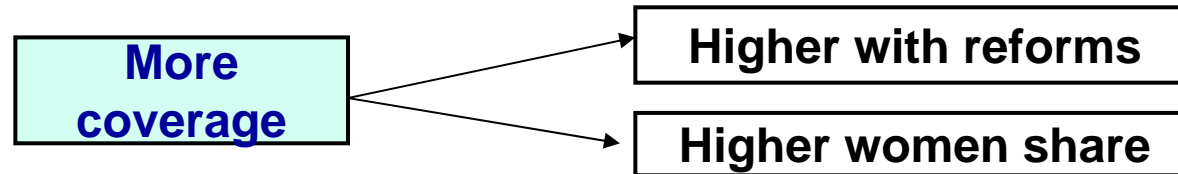
More coverage



**Coverage rates**  
(affiliates / population between 14 and 65 years)



## Under any definition, coverage is higher



Coverage rates					
		Affiliates <sup>1</sup>		Pensioners <sup>2</sup>	
Years		Inertial	Base	Inertial	Base
2010	M	64%	66%	49%	49%
	W	42%	44%	17%	17%
	T	53%	55%	31%	31%
2025	M	71%	78%	54%	54%
	W	53%	58%	22%	22%
	T	62%	68%	36%	36%
2050	M	70%	83%	77%	81%
	W	57%	66%	52%	54%
	T	64%	74%	63%	67%

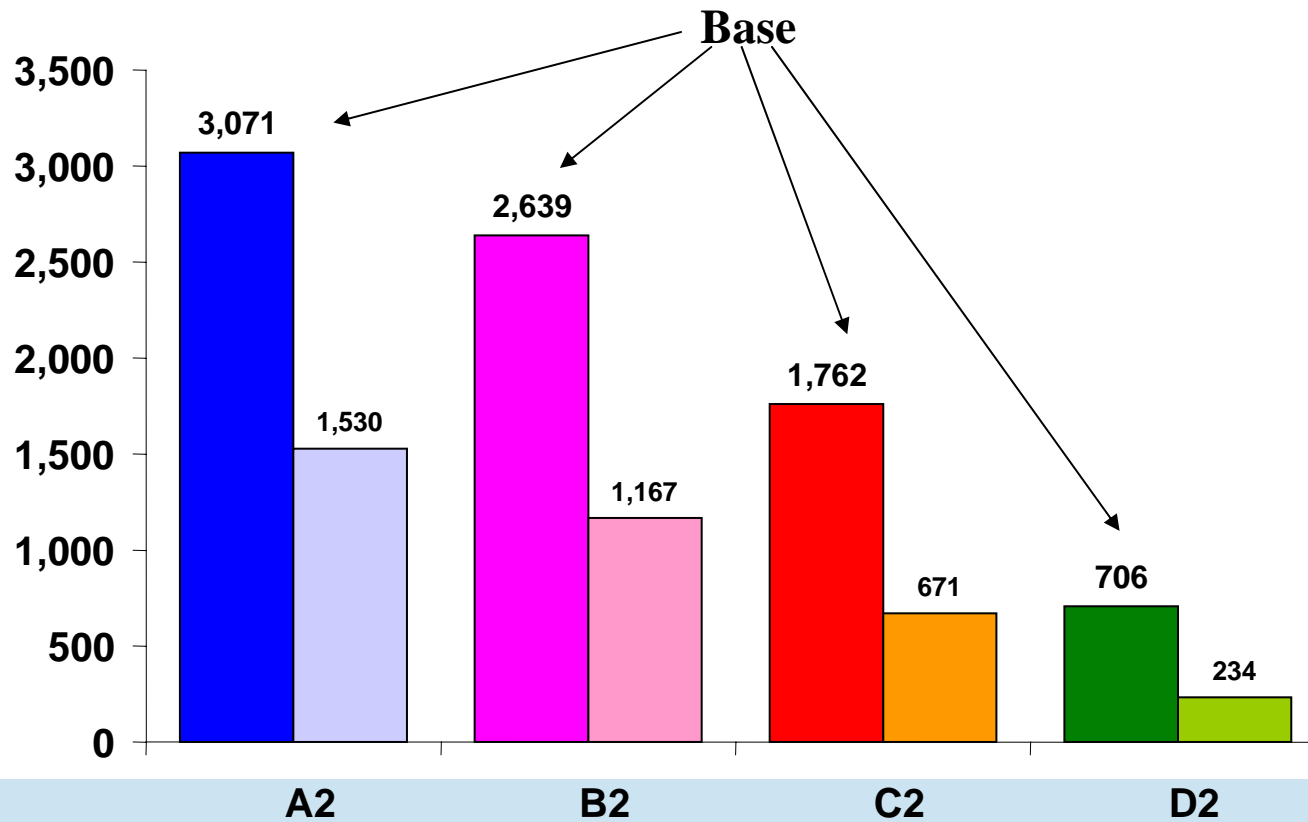
1. Affiliates / population between 14 and 65 years

2. Pensioners / population over 64 years

## Lower pensions in the inertial scenario

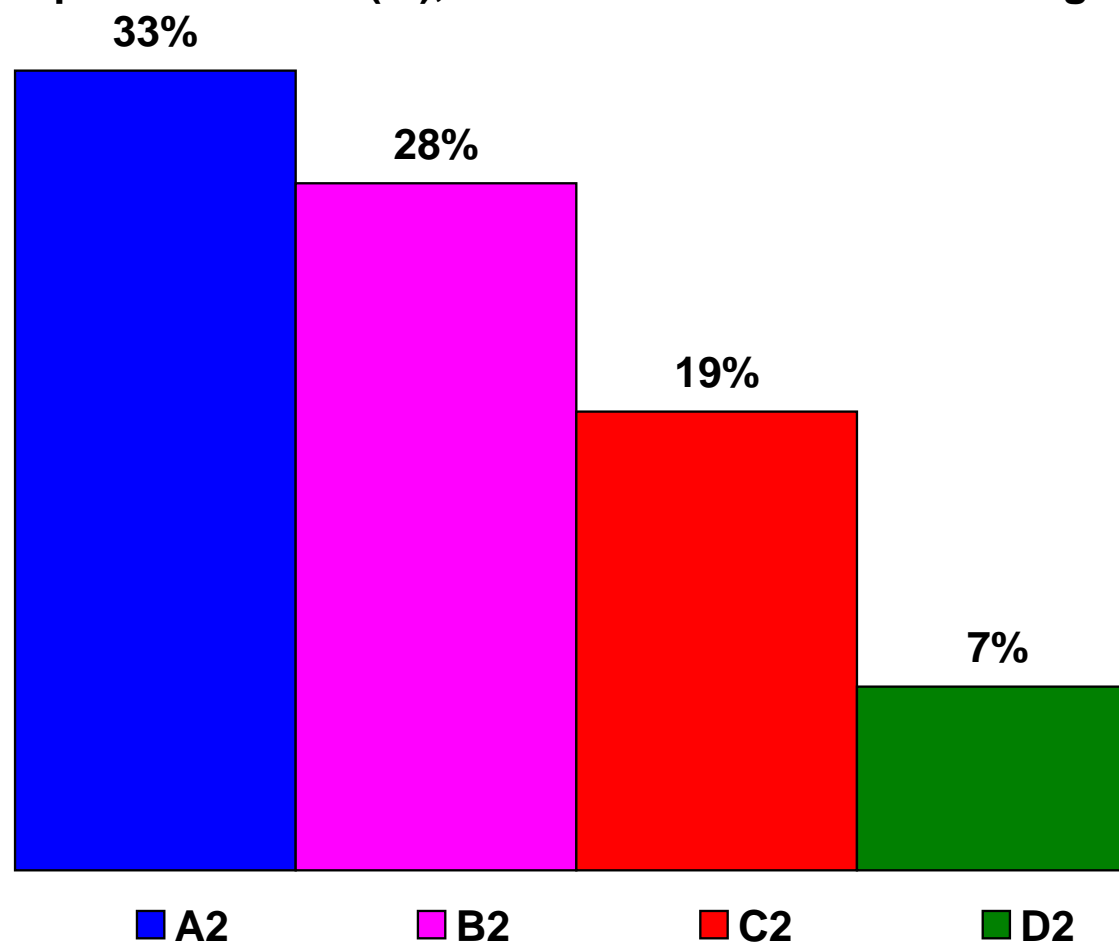


### Average pension level (pesos), base and inertial scenarios without housing 2050\*



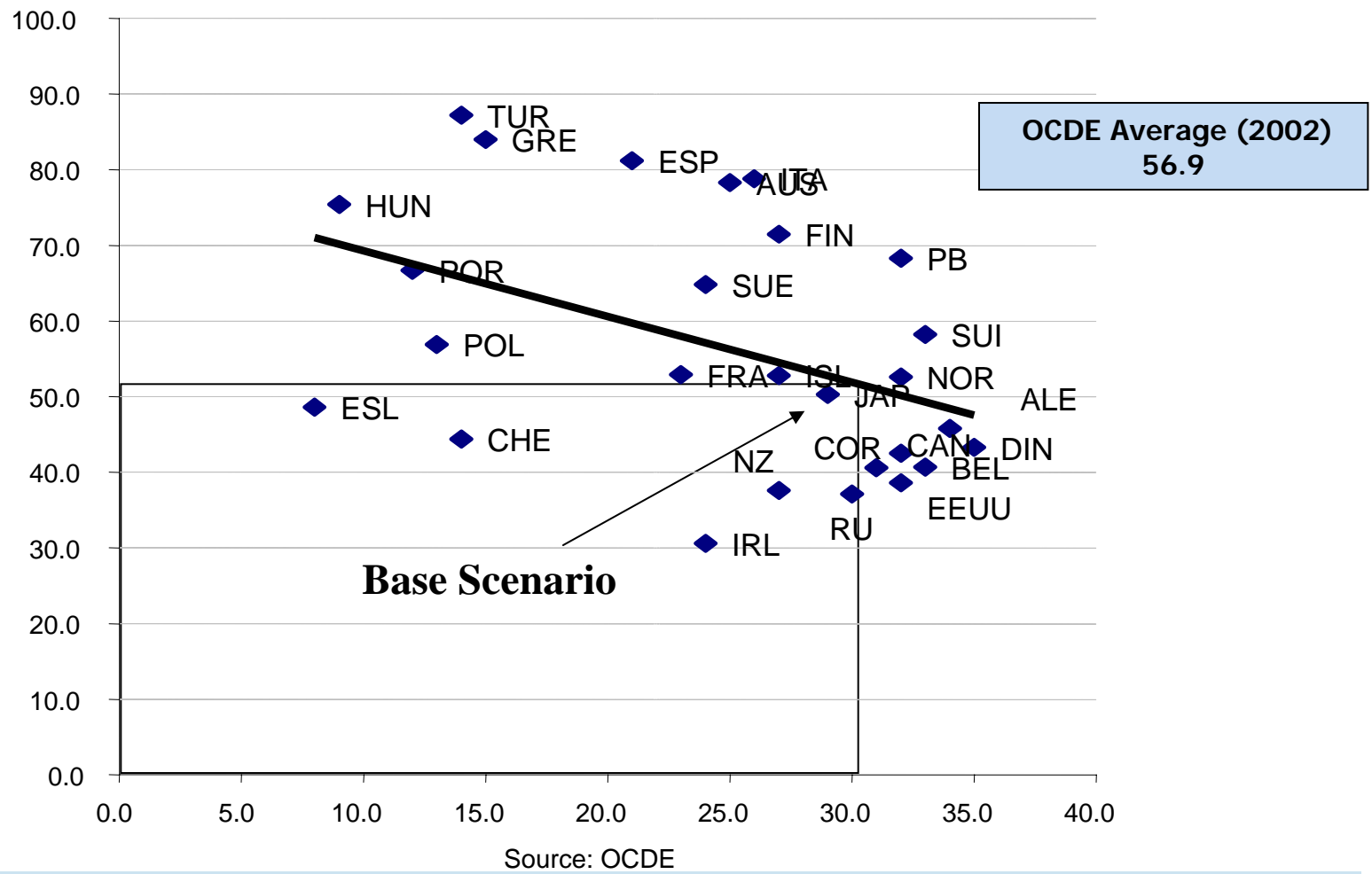
## The system projects modest replacement rates

Replacement rate (%), Base scenario without housing 2050 \*



\* / Tasa de reemplazo sobre último año en hombres

Replacement rates by income level, %



## Replacement Rates are generous with the transition generation


The transition imply a  
fiscal cost

The system projects low  
replacement rates

Replacement rates - Men							
		2010		2025		2050	
Groups		Inertial	Base	Inertial	Base	Inertial	Base
A	1	110%	106%	112%	109%	42%	41%
	2	110%	106%	112%	108%	33%	33%
	3	106%	103%	109%	106%	23%	23%
B	1	109%	106%	111%	109%	32%	35%
	2	96%	95%	93%	96%	25%	28%
	3	81%	82%	82%	91%	17%	20%
C	1	109%	106%	110%	107%	19%	23%
	2	70%	71%	61%	66%	14%	19%
	3	41%	44%	41%	56%	10%	14%
D	1	1%	1%	3%	4%	6%	9%
	2	1%	1%	2%	3%	5%	7%
	3	1%	1%	2%	3%	3%	6%

## Replacement rates between men and women are similar

Replacement Rates - Women							
		2010		2025		2050	
Groups		Inertial	Base	Inertial	Base	Inertial	Base
<b>A</b>	1	110%	106%	112%	109%	44%	43%
	2	110%	106%	112%	108%	35%	34%
	3	106%	103%	109%	106%	24%	24%
<b>B</b>	1	109%	106%	111%	109%	34%	37%
	2	96%	95%	93%	96%	26%	29%
	3	81%	82%	82%	91%	18%	21%
<b>C</b>	1	109%	106%	110%	107%	20%	25%
	2	70%	71%	61%	66%	15%	20%
	3	41%	44%	41%	56%	10%	14%
<b>D</b>	1	1%	1%	3%	4%	7%	10%
	2	1%	1%	3%	3%	5%	8%
	3	1%	1%	2%	3%	4%	6%

 1973 Law Pension

\*/ Replacement Rate over the last year

For the new generation, with the mandatory housing account, pensions could improve

Without housing account, pensions fall 30%

Replacement rate – New Generation 2050					
		Men		Women	
Groups		With housing	Without housing	With Housing	Without housing
A	1	55%	41%	58%	43%
	2	46%	33%	49%	34%
	3	35%	23%	37%	24%
B	1	47%	35%	50%	37%
	2	40%	28%	42%	29%
	3	31%	20%	32%	21%
C	1	32%	23%	34%	25%
	2	27%	19%	29%	20%
	3	21%	14%	22%	14%
D	1	13%	9%	13%	10%
	2	11%	7%	12%	8%
	3	9%	6%	9%	6%


\*/ Assumes base scenario and replacement rate over the last year



“Asignados” have lower pensions than affiliates

<b>Replacement rates – New Generation 2050</b>					
		<b>Men</b>		<b>Women</b>	
<b>Groups</b>		<b>Affiliates</b>	<b>“Asignados”</b>	<b>Affiliates</b>	<b>“Asignados”</b>
<b>A</b>	1	41%	38%	43%	40%
	2	33%	31%	34%	33%
	3	23%	22%	24%	23%
<b>B</b>	1	35%	32%	37%	34%
	2	28%	26%	29%	28%
	3	20%	19%	21%	20%
<b>C</b>	1	23%	22%	25%	23%
	2	19%	17%	20%	19%
	3	14%	13%	14%	14%
<b>D</b>	1	9%	7%	10%	8%
	2	7%	6%	8%	7%
	3	6%	5%	6%	5%

\*/ Assumes base scenario without housing and replacement rate over the last year



# **Pension Systems in Mexico: evolution and challenges**

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**BBVA Research**  
September 20, 2010