

# The Health Care System and its Fiscal Impact in Colombia

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# Objective

- Analyze the structure of the health care system in Colombia.
- Establish the magnitude of the public fiscal deficit generated by such a system.

We: 1) Explain its complex funding structure (full of “cross-subsidies”).

2) Run simulations to establish the public sector financial gap.

3) Compute NPV of the health care system’s (actuarial) liability.

# Results

- System increases coverage from 86% to 94% by year 2012 (government's goal).
- Base-case scenario: NPV of public liabilities of 97% of GDP (of year 2007) over 2007-2050.
- Similar magnitude to the pension liability; after “parametric reforms” of PAYGO system.

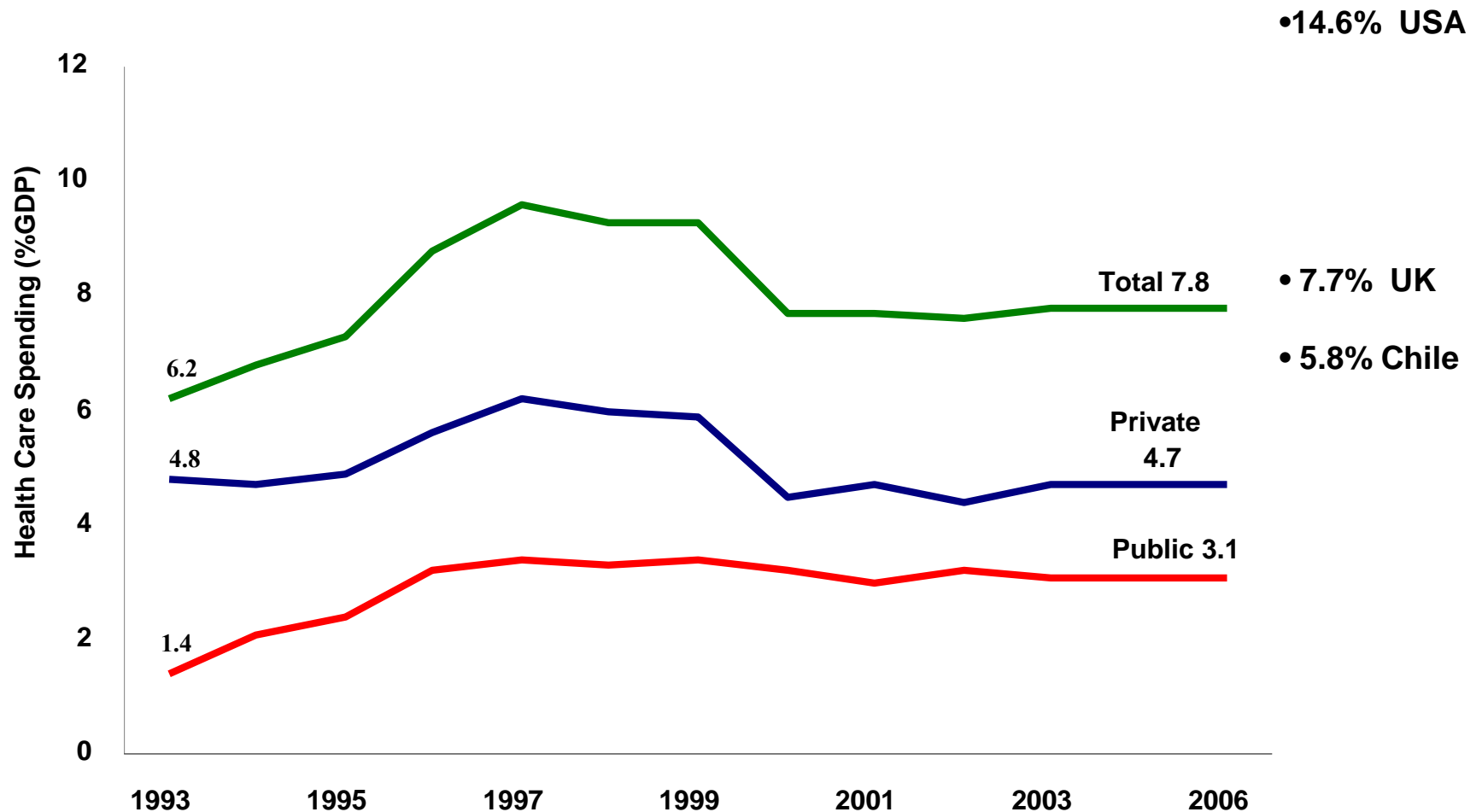
# Three stages of social security in the Developed World.

1. Germany-1883: Bismarck visionary idea of compulsory savings-system.
  
2. Expansion throughout Europe and USA:
  - Labor compensation packages (1901-1928).
  - Great Depression (1929-31)-*New Deal* (1935-36), unionization up to 30% and regular labor arrangements.
  - “Progressive” wage adjustments created a medium class: the “great compression” (Krugman, 2007).

# Three stages of social security in the Developed World (cont.)

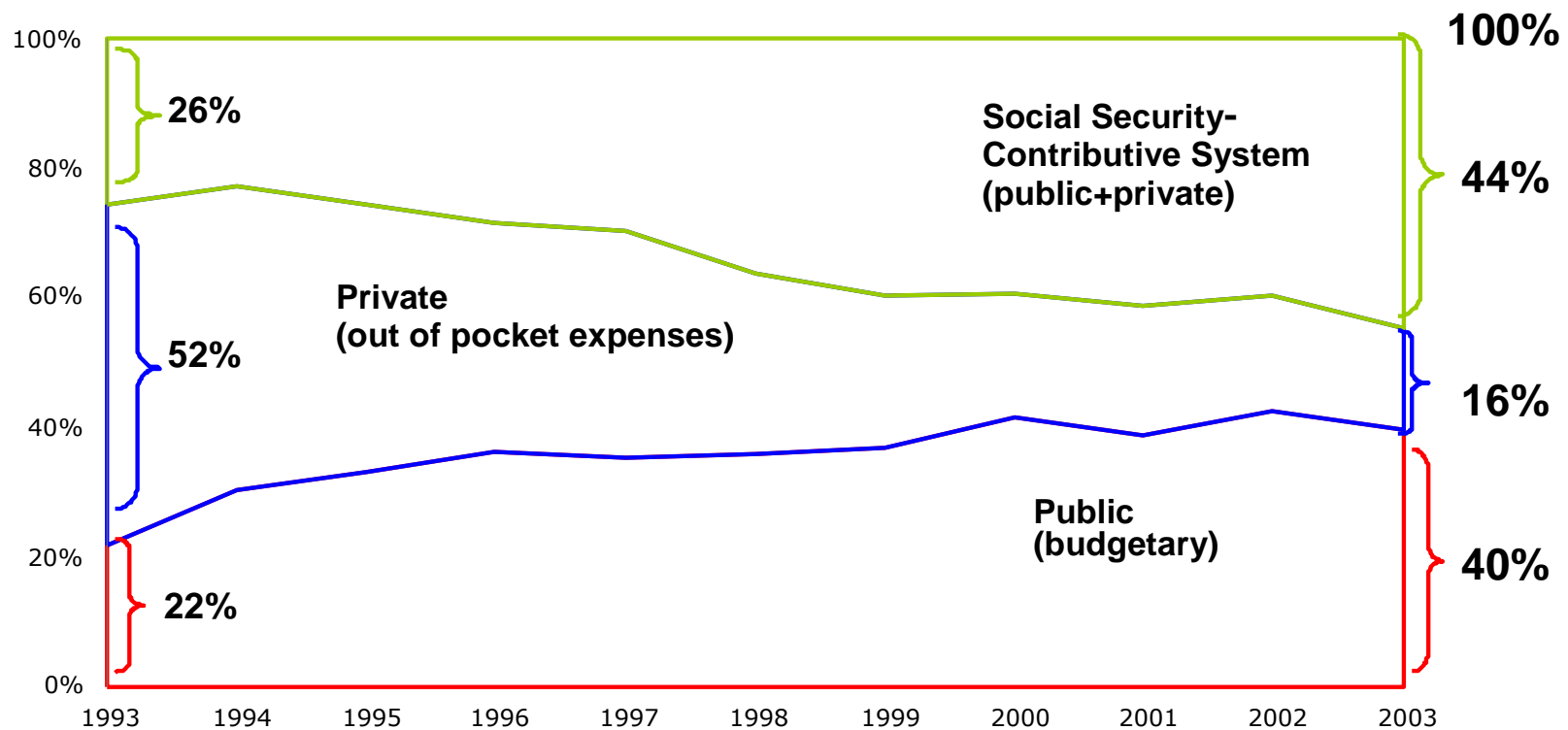
3. Global competition (1980s-1990s): outsourcing and off-shoring.
  - Health care coverage thru firms: between 57%-65% during 1993-2001.
  - More recently (2005-2007), dwindled to less than 60% and declining path.
  - National health care coverage about 85%.
  - Improving Medicare and Medicaid cost an additional 4% of GDP.

# Health Care Spending in Colombia 1993-2003 (% of GDP)



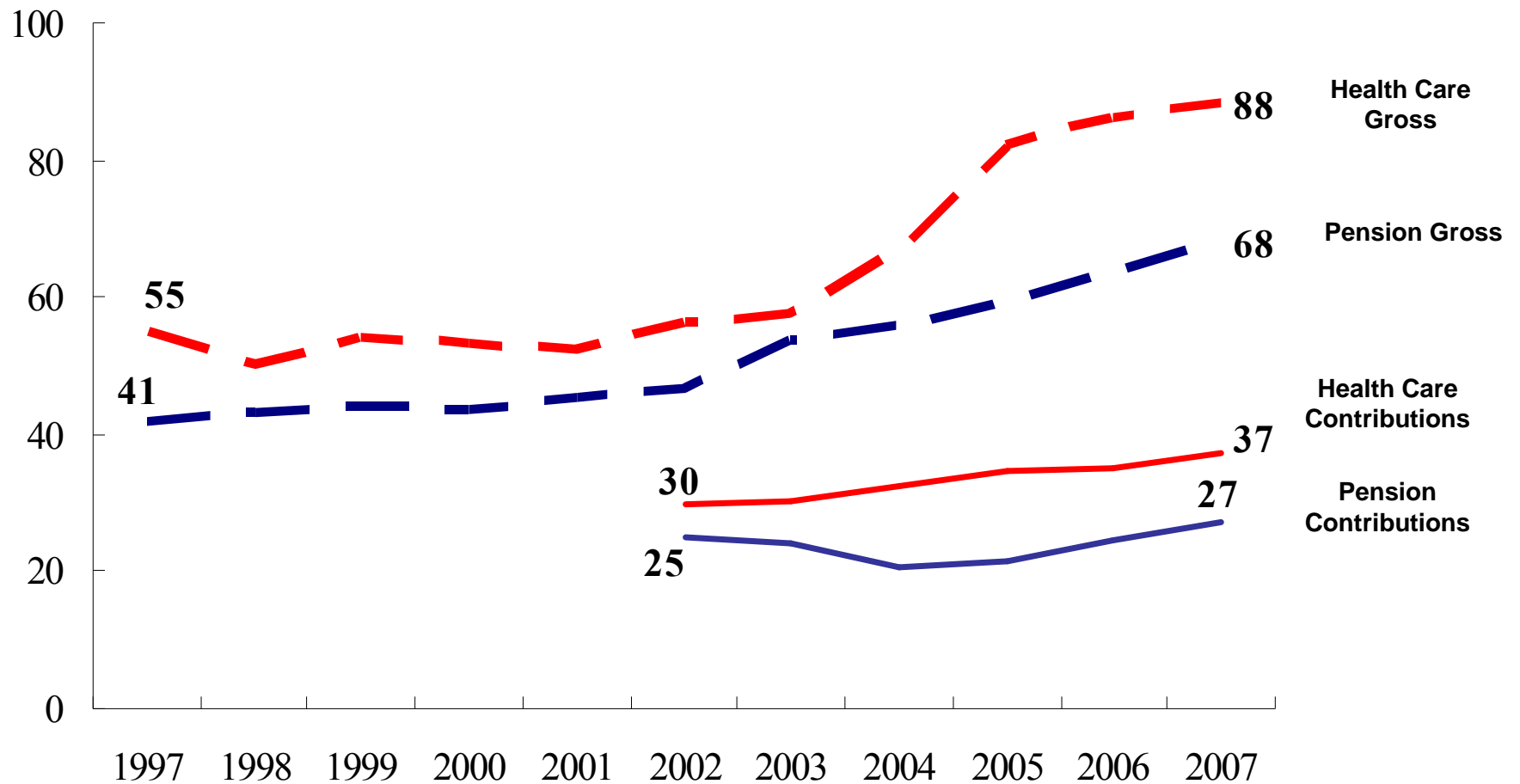
Source: Barón 2007 and calculus Anif

# Public and Private Health Care Spending (% of total health care expenses)



Source: Barón (2007) and calculus Anif

# Health Care and Pension Coverage Rates 1997-2007 (%)



Source: Superintendencia of Finance, Ministry of Social Protection, DANE and calculus Anif



# Determining factors of health care costs

## Demographic Variables

- Population - variable
- Life expectancy - constant
- Epidemiological profile - constant

## Non-Demographic Variables

- Institutions - variable
- Income – constant
- Technology - constant

## Population estimates and Health Care System members (million of people)

	2006	2020	2050
<b>Total population</b>	43.2	50.8	68.5
<b>Working age population (78%)</b>	33.8	39.6	53.4
<b>Employed population</b>	17.9	21	28.3
<b>Subsidized System members</b>	20.1	26.8	34.3
<b>Contributive System members</b>	17	21.3	32.6

Source: DANE, Ministry of Social Protection and calculus Anif.

# Sources of the Health Care System Funding in 2006

## (millions of contributors, billions)

<b>I. CONTRIBUTIONS</b>	
<b>Total Number</b> (mill. of contributors)	<b>7.4</b>
<b>Total Value</b> (bill.)	<b>11.9</b>
<b>Contributive System</b> (bill.)	<b>11.7</b>
High Range (HR) (Average Contrib.*HR members, bill.)	0.6
Average Contribution (AC) (12 LMW*12.5%, mill.)	7.3
Medium Range (MR) (AC* MR members, bill.)	3.3
Average Contribution (6 LMW*12.5%, mill.)	3.7
Low Range (LR) (AC* LR members, bill.)	7.9
Average Contribution (2 LMW*12.5%, mill.)	1.2
<b>CCF Contribution</b> (bill.)	<b>0.2</b>

Source: calculus Anif

# Health Care Expenses in 2006 (millions of members, billions)

<b>II. Expenses</b>	
<b>Total Number (mill.)</b>	<b>37.1</b>
<b>Total Value (bill.)</b>	<b>18.0</b>
<b>Contributive System (bill.)</b>	<b>10.8</b>
Number (Contributors*Family Density, mill.)	17.0
High Range (bill.)	0.2
POS (UPC*HR members, bill.)	0.1
Non-POS (1.3%*LMW*members,bill.)	0.1
Medium Range (bill.)	2.3
POS (UPC*MR members, bill.)	0.8
Non-POS (1.4%*LMW*members,bill.)	1.4
Low Range (bill.)	8.4
POS (UPC*LR members, bill.)	6.0
Non-POS (1.6%*LMW*members,bill.)	2.3
<b>Subsidized System (bill.)</b>	<b>7.2</b>
Number (mill.)	20.1
<b>Demand Subsidies (bill)</b>	<b>4.1</b>
Partial Subsidy Members (UPC-PS*members.,bill.)	0.2
Full Subsidy Members (UPC-S*members, bill.)	3.9
<b>Supply Subsidies (bill.)</b>	<b>2.8</b>
<b>Budget Capital Contributions (ISS, bill.)</b>	<b>0.3</b>

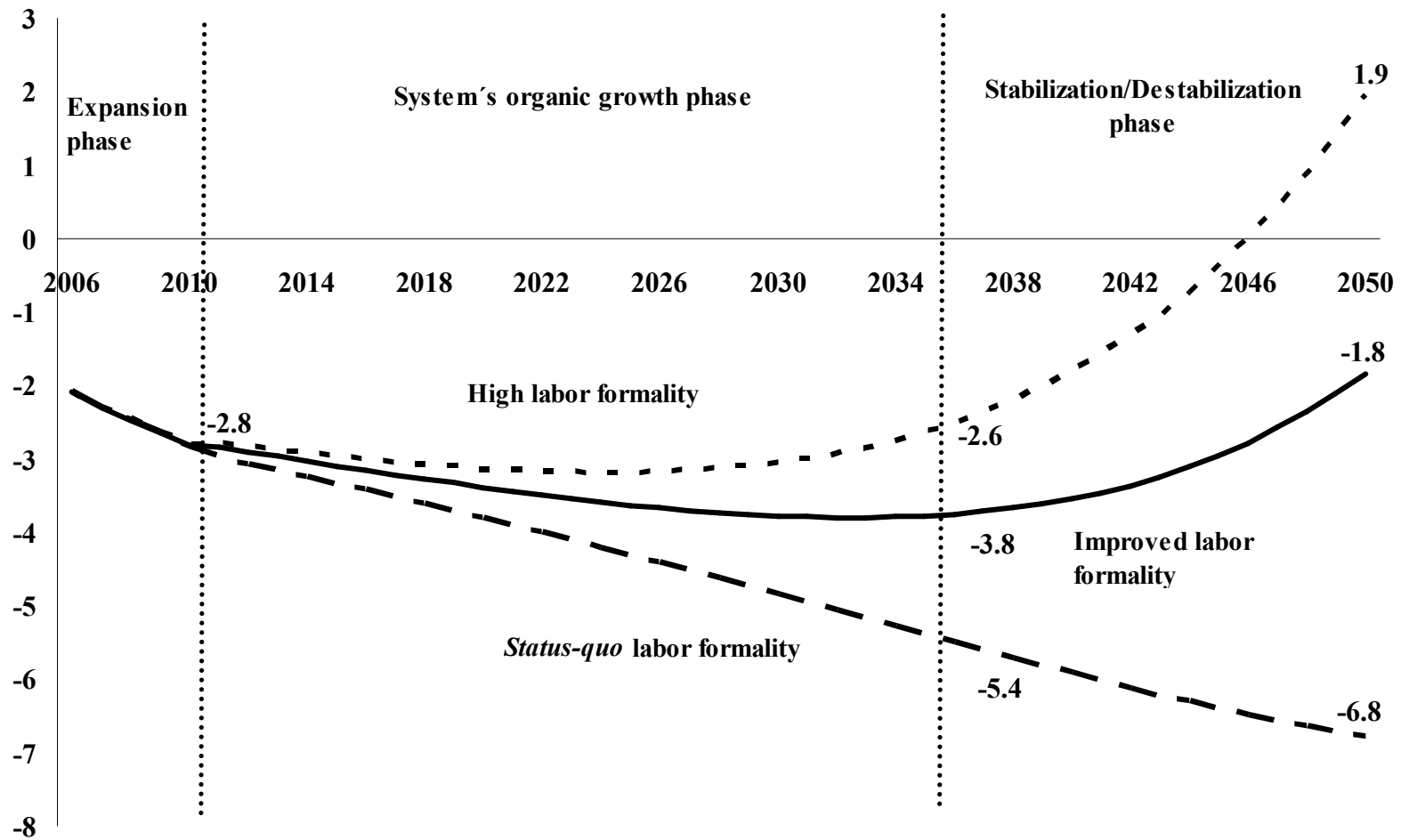
Source: calculus Anif

# Scenarios

	Improved formality			Status-quo formality		High formality Improvement	
	2006	2020	2050	2020	2050	2020	2050
<b>CS contributors/Employed (%)</b>	40	44	50	40	40	47	60
<b>(million)</b>	7.4	9.2	14.2	8.4	11.3	9.8	16.7
<b>HCSSS coverage (%)</b>	86	95	98	95	98	95	100
<b>(million)</b>	37.1	48.1	67.1	48.1	67.1	48.1	68.2
<b>Health Care sector deficit (% GDP)</b>	-2.1	-3.3	-1.8	-3.8	-6.8	-3.1	+1.9

Source: calculus Anif

# Health Care deficit trend and forecast 2006-2050 (% of GDP)



Source: calculus Anif

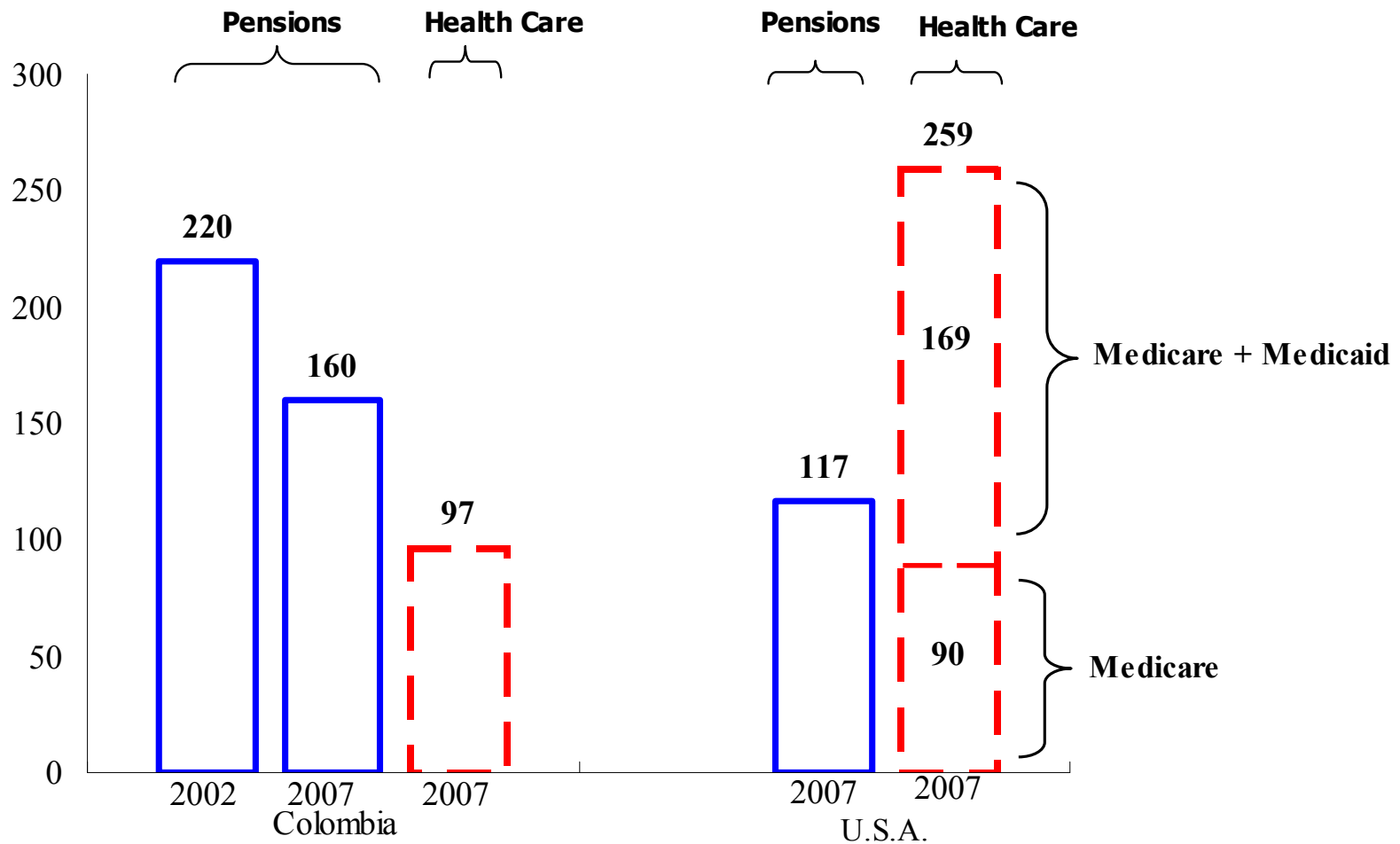
# Health Care NPV by type of Obligations

(% GDP of 2007; surplus (+) deficit (-))

	<b>i=4.0%</b>	<b>i=5.0%</b>
<b>Gross public spending</b>	-107.0	-90.5
<b>Net public duties (deficit)</b>	-96.9	-80.1
<b>Net private spending (surplus)</b>	+ 35.5	+ 27.2
<b>Total balance (public+private)</b>	-61.4	-52.8

Source: calculus Anif

# Contingent liabilities Health Care and Pension Fund Systems (% GDP)



Source: DNP and calculus Anif