

# Public investment in social sectors and the fiscal consequences in an aging society: The case of Uruguay

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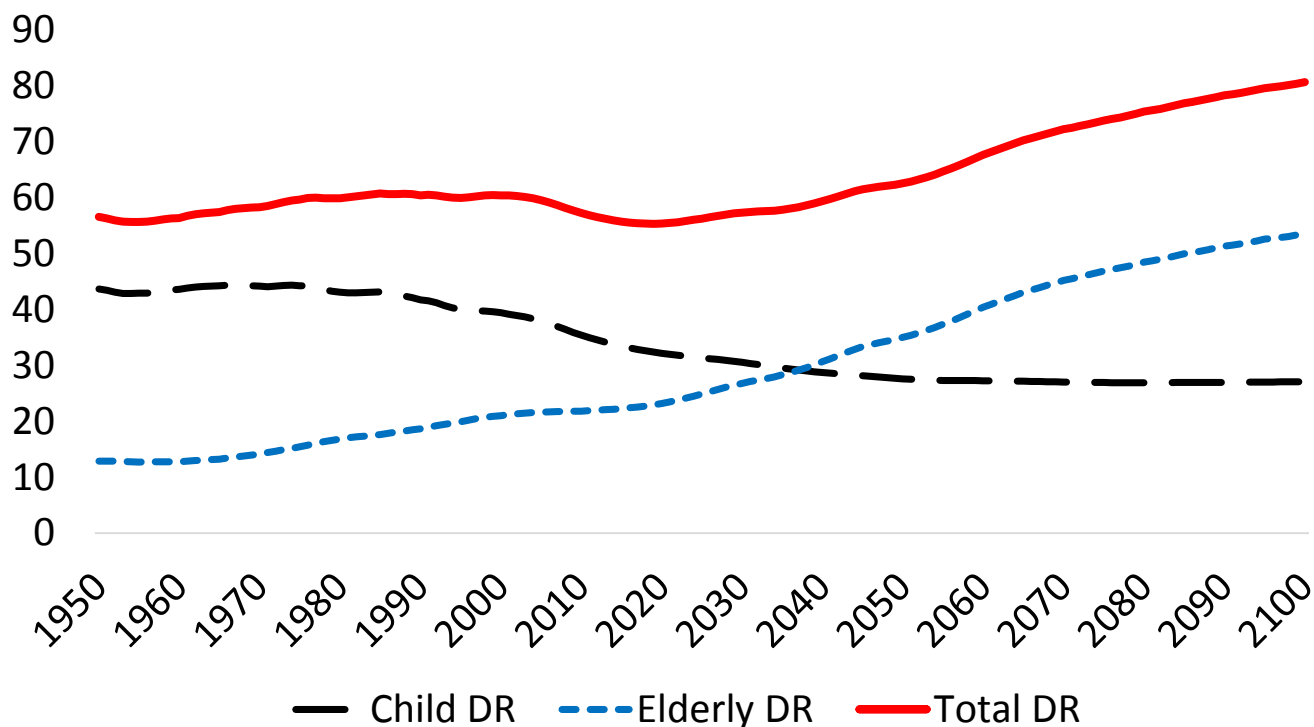
# INDEX

- Context and objectives
- Focus on three key changes in NTA profiles over time
- Projections of social spending
- Policy discussion
  - Free resources from pensions
  - Investment in education
- Conclusions

# **CONTEXT AND OBJECTIVES**

# CONTEXT—DEMOGRAPHIC FACTS

Uruguay is one of the Latin American countries that began its demographic transition earliest. The total dependency ratio has been decreasing since the early 2000s and will continue to do so until approximately 2020, before increasing again as the aging process progresses.



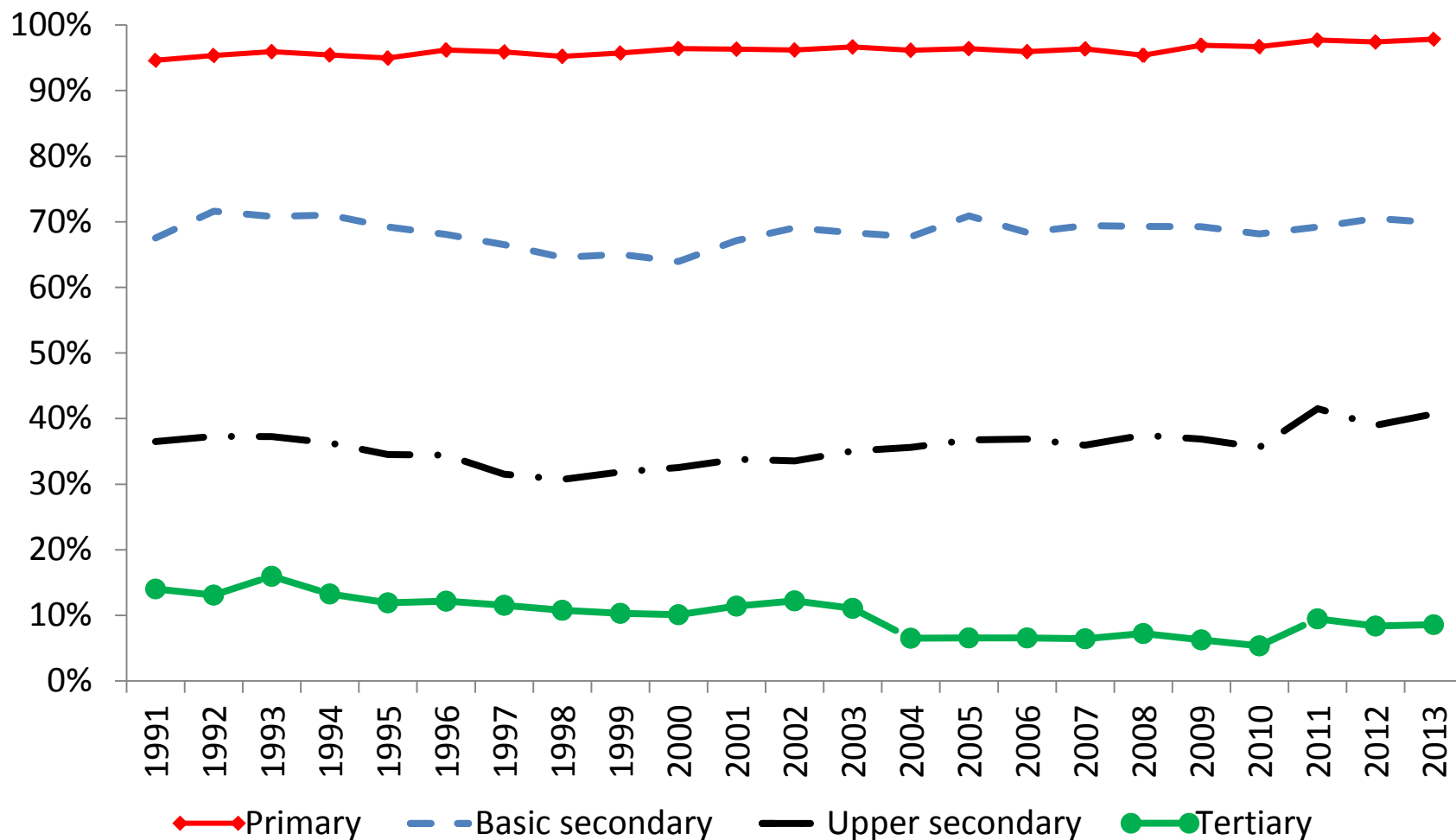
Source: Extracted from Calvo J.J. (2016). Current and Future Uruguayan Demographics. In Eds. R. Rofman, V. Amarante and I. Apella: *Demographic Change in Uruguay. Economic Opportunities and Challenges*, World Bank

# CONTEXT—ECONOMY AND WELFARE

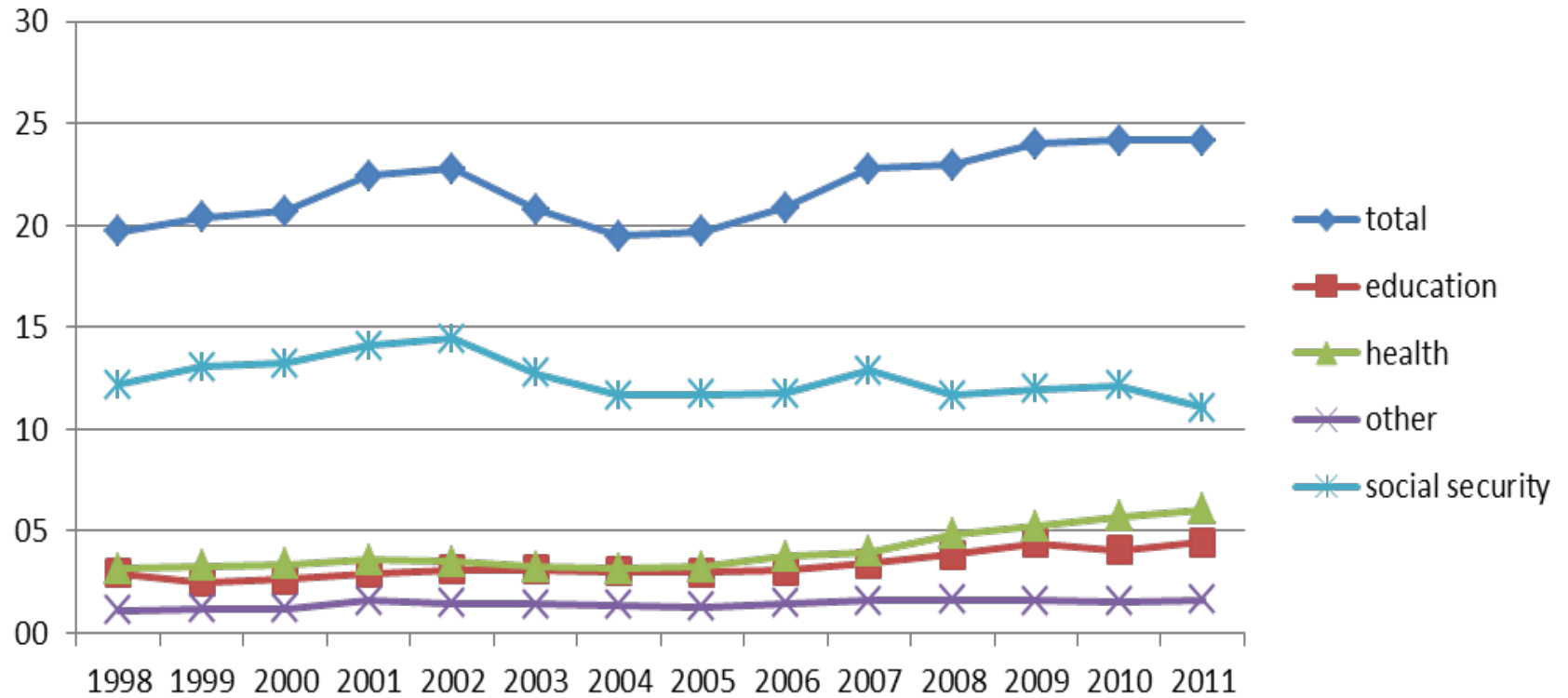
- Compared with regional averages, Uruguay has traditionally shown good welfare indicators and low poverty rates
- In the past decade, the country enjoyed macroeconomic stability and high growth

# HOWEVER, LITTLE PROGRESS IN ONE OF THE KEY SECTORS FOR DEVELOPMENT: EDUCATION

Completion Rates By Education Level, 1991-2013



# SOCIAL SPENDING

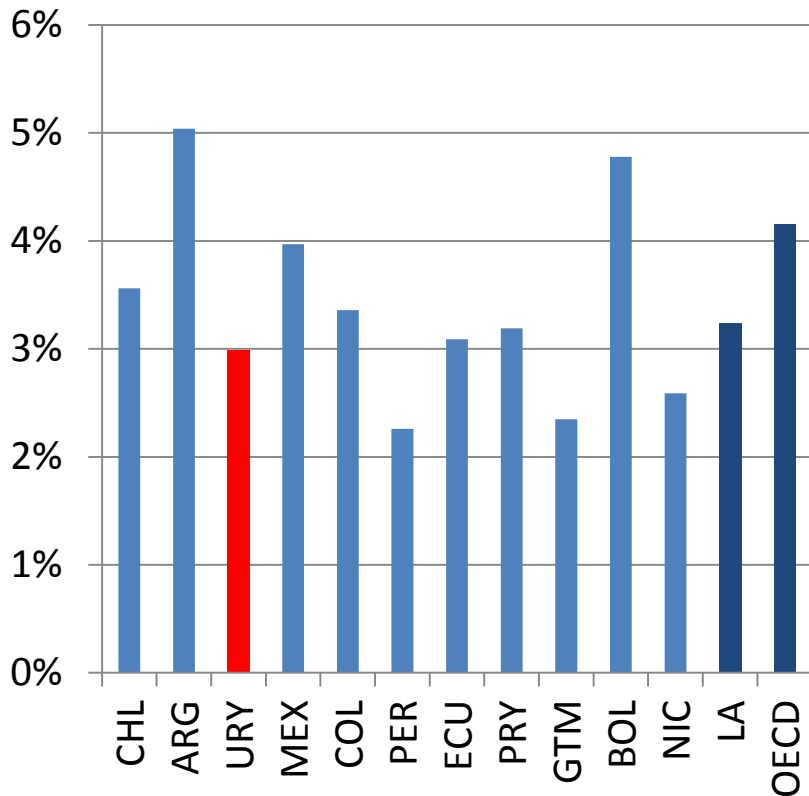


Source: CEPAL / CEPALSTAT

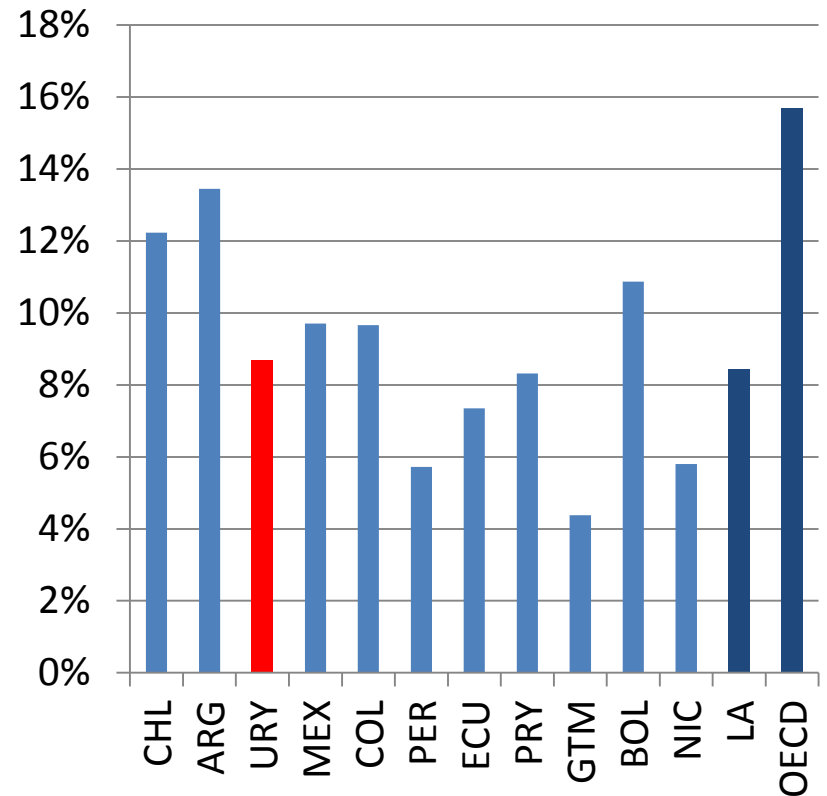
Health and education are on the rise

# SPENDING ON EDUCATION HAS INCREASED BUT IS STILL RELATIVELY LOW

Education spending (% of GDP)



Public spending on basic education per student (as a % of GDP per worker)





# 1996 SOCIAL SECURITY REFORM

- Social security spending has been decreasing
- The Social Security Reform transformed a pay-as-you-go system to a system that includes a pay-as-you-go component administered by the public sector and an individual capitalization fund component

# OBJECTIVES OF THE STUDY

1. To construct estimates of NTA profiles for 2013 (Uruguay) and to discuss the role of the public sector in financing consumption across the various stages of the life-cycle
  2. To compare the new estimates to previous NTA estimates (1994 and 2006)
  3. To present a series of projections as a basis for future policy discussion
  4. The estimations are used as a benchmark scenario for a book that investigates the consequences of aging under different policy scenarios
- In this presentation, I will focus on points 3 and 4

**FOCUS ON THREE KEY CHANGES IN  
NTA PROFILES OVER TIME**

# **MAIN CHANGES IN PROFILES IN THE 1994, 2006, AND 2013 NTA ESTIMATES**

1. The peak of the per capita labor income profile has shifted toward older ages
2. Consumption among the elderly has increased
3. The public transfer gap between children and the elderly has narrowed

# FACTORS THAT MAY HAVE HELPED TO NARROW THE CHILD-ELDER GAP IN PUBLIC TRANSFERS

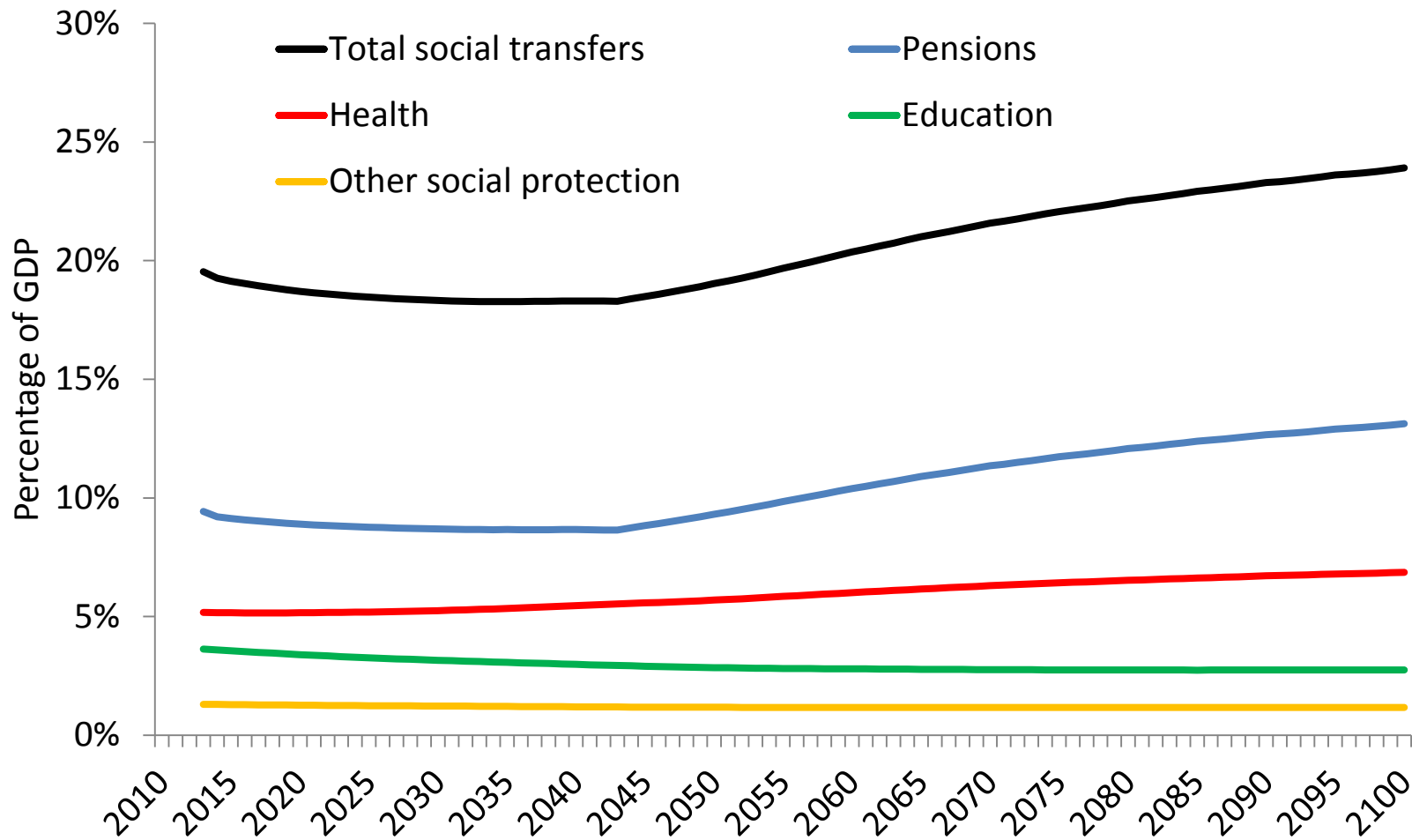
- **Education:** Increase of public spending on education. However, in both years (2006 and 2013) the same proportion of labor income (12%) was assigned to total education consumption
- **Pensions:** Increase of the proportion of pensioners retired under the mixed regime, which leads to a decrease in the average public pension transfer
- **Health Reform:** It probably helped to reduce the gap, but we cannot compare because we changed the method of estimation
- **Tax Reform:** The introduction of direct taxes on pensions

# **PROJECTIONS OF SOCIAL SPENDING**

# PROJECTIONS ASSUMPTIONS

- We estimate the evolution of the support ratio, the fiscal support ratio, and social spending as % of GDP
- Assumptions:
  - Income, consumption, and transfer profiles remain constant (base year: 2013)
  - They grow at the same rate. An arbitrary value of 2.5% is assumed, consistent with similar forecasts in developing countries (Miller and Castanheira 2013)
  - The proportion of labor income as % of GDP is constant at 2013 values
  - The implicit GDP growth rate is consistent with IMF estimations for the period 2012–2019 and is about the average rate observed over the past 30 years
  - To simulate spending on pensions, we take into account the increasing proportion of pensioners under the mixed regime

# PUBLIC SOCIAL SPENDING, 2013–2100

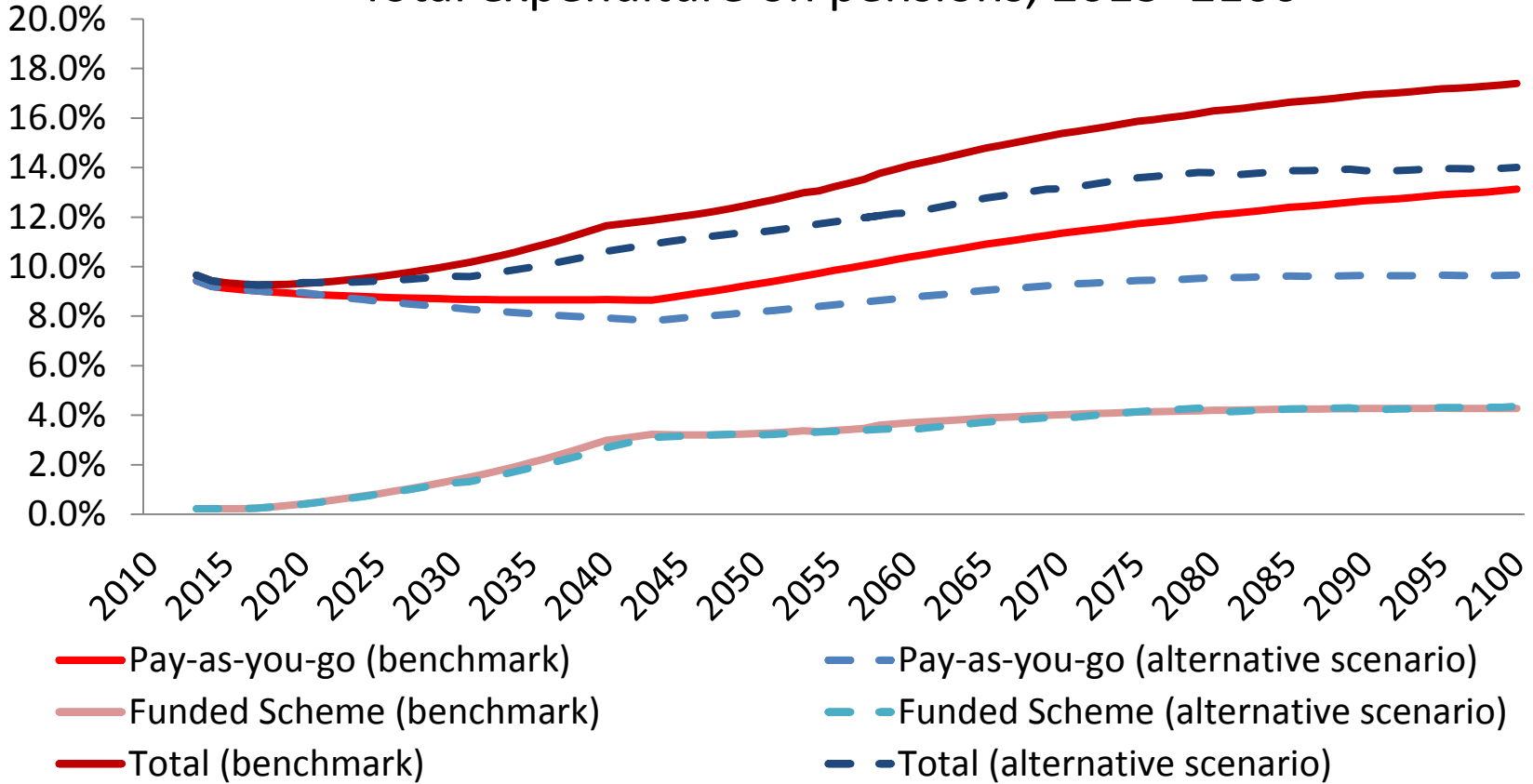




# **POLICY DISCUSSION**

# FREEING MORE RESOURCES FROM PENSIONS

## Total expenditure on pensions, 2013–2100

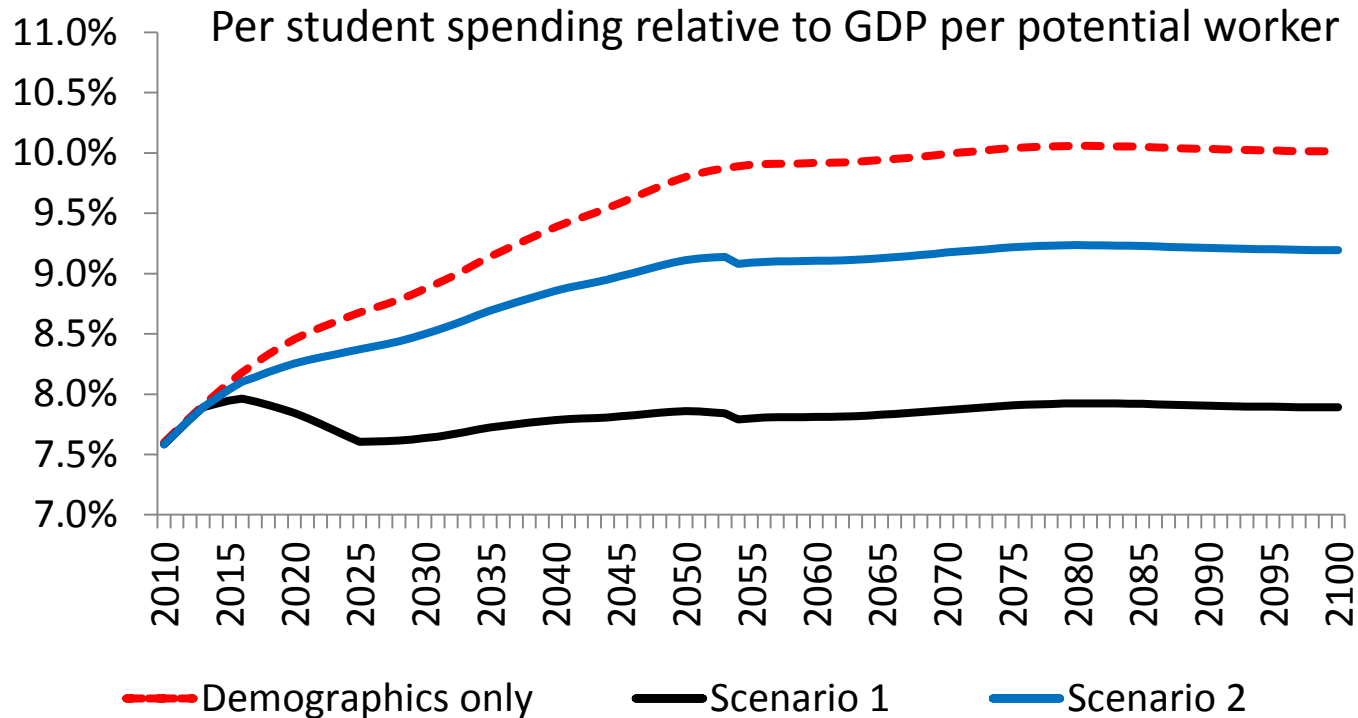


**Alternative scenario:** The retirement age increases by 1 year every 10 years (beginning in 2020)

# ALTERNATIVE SCENARIOS TO IMPROVE EDUCATION

1. Universal coverage for basic education
  - From ECD to lower-secondary education, universal coverage reached by 2025
  - From 2028, a similar path for upper-secondary education; time necessary to reach the goal is endogenous
  
2. Same coverage goal as in 1), and convergence to OECD over-age enrollment levels (by level of education)
  - Both goals achieved simultaneously
  
3. Same as in 2), and convergence to OECD per student benefit relative to GDP per worker

# SCENARIOS KEEPING AGGREGATE SPENDING IN EDUCATION AS A CONSTANT PERCENTAGE OF GDP



**Scenario 1:** The fall in the child dependency ratio will free up sufficient resources to achieve universal coverage, while per student spending remains the same, without any need for additional funding

**Scenario 2:** Increasing efficiency by reducing overage enrollment will free up additional resources to achieve full coverage, more progression and more resources per student at the same time (although spending per pupil will still be below OECD average)

# ALLOWING FOR AGGREGATE SPENDING TO INCREASE

- The effort to simultaneously fund the coverage and efficiency goals, plus the increase in per student spending, require an increase in funding of 1.3% of GDP as of 2100
- In addition, it would require transfers of resources between levels
- Additional simulations taking into account tertiary education and teacher training

# CONCLUSIONS

- The recent increasing role of the public sector in financing consumption during the dependency ages has been accompanied by a decrease in the elderly/child gap in public transfers
- This process could be intensified without significant fiscal pressure
  - Decrease in the child dependency ratio would free up resources in the education sector
  - The 1996 Social Security Reform limits the fiscal pressure on pensions due to populating aging
- BUT: It's not only about money—achieving these goals will require institutional reforms