

Poland CEM

Saving for Growth and Prosperous Aging

June 2014

Poverty Reduction and Economic Management Unit
Europe and Central Asia Region



THE WORLD BANK



Outline

- Why does Poland need to save more?
- How much is Poland saving and what is the outlook?
- What policies can be used to boost saving in Poland?

sustainability
drivers living standard income growth sustainability
prosperity

Objectives of this work



The background of the slide features a photograph of a man and a young child standing on a sandy beach, looking out at the ocean during a sunset. The sky is a warm orange, and the water reflects the light. The silhouettes of the man and child are prominent on the right side of the frame.

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prosperity

Is saving in Poland adequate?

Two main concerns:

MACRO

Poland's ability to maintain strong growth in the long run



How much saving does Poland need to sustain robust growth?

MICRO

The ability of households to ensure adequate retirement income as the population ages



Are Poles adequately prepared for retirement?

Objectives



Assess the adequacy of Poland's savings in the long run from the perspective of economic growth and ensuring decent living standards for all Poles.

Recommend to the Government measures to support saving-based growth in Poland.

Stimulate public discussion and enhance general understanding of how national savings affect the Polish economy.

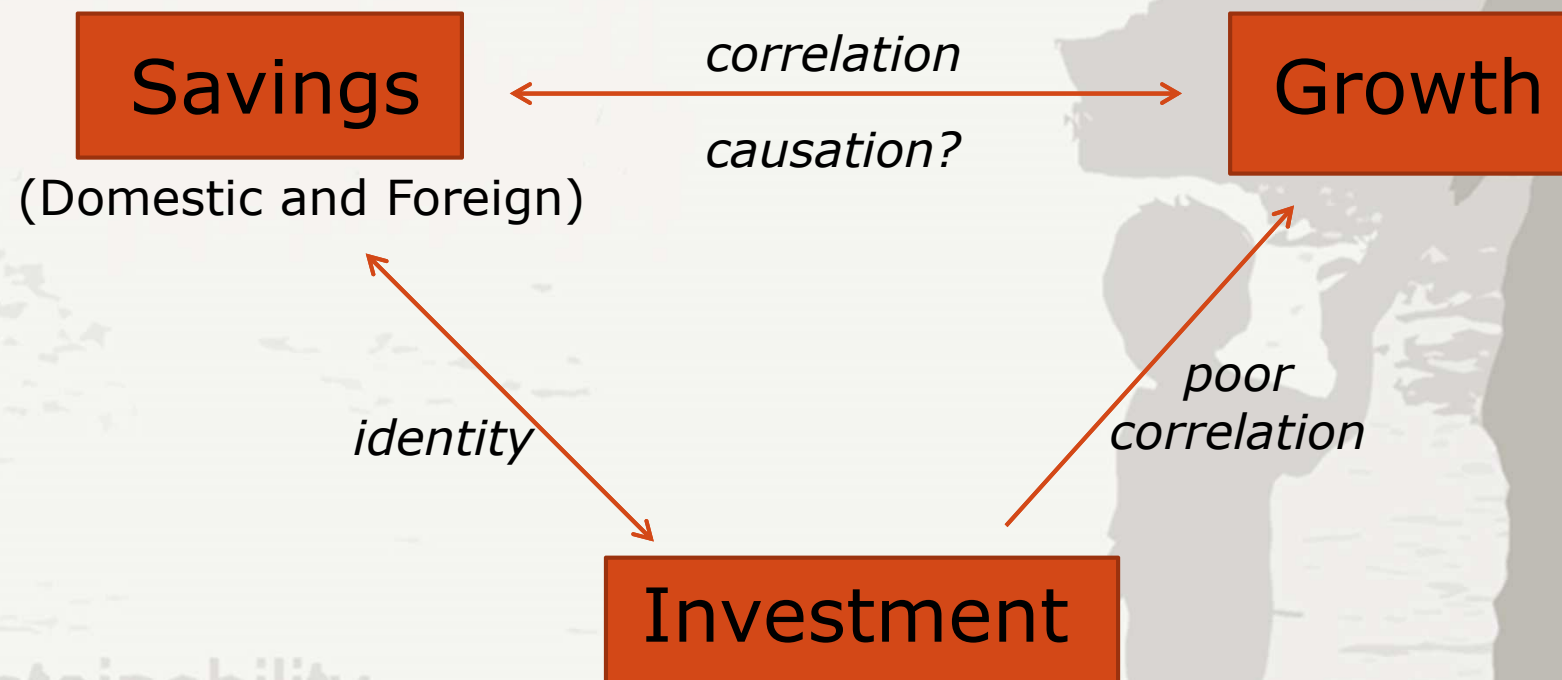
Why does Poland need to save more?



The background of the slide features a warm, golden sunset over a body of water. In the foreground, the silhouettes of a man and a young child are visible. The man is standing on the right, looking out at the sea, while the child stands to his left, reaching up towards a large, dark rock formation in the water. The overall mood is contemplative and serene.

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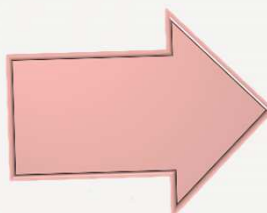
The Savings – Growth Puzzle



Poland needs saving to sustain...

MACRO

...fast economic development.



Growth engine is losing steam

Long-term challenges are emerging:

- population aging
- lower productivity (TFP) growth
- tighter financing

Need to modify growth model to:

- favor saving-led growth over consumption,
- replace EU funds,
- reduce vulnerability to external shocks.

MICRO

...decent living standards for a growing group of pensioners.



To supplement state-provided pension to maintain income in aging society

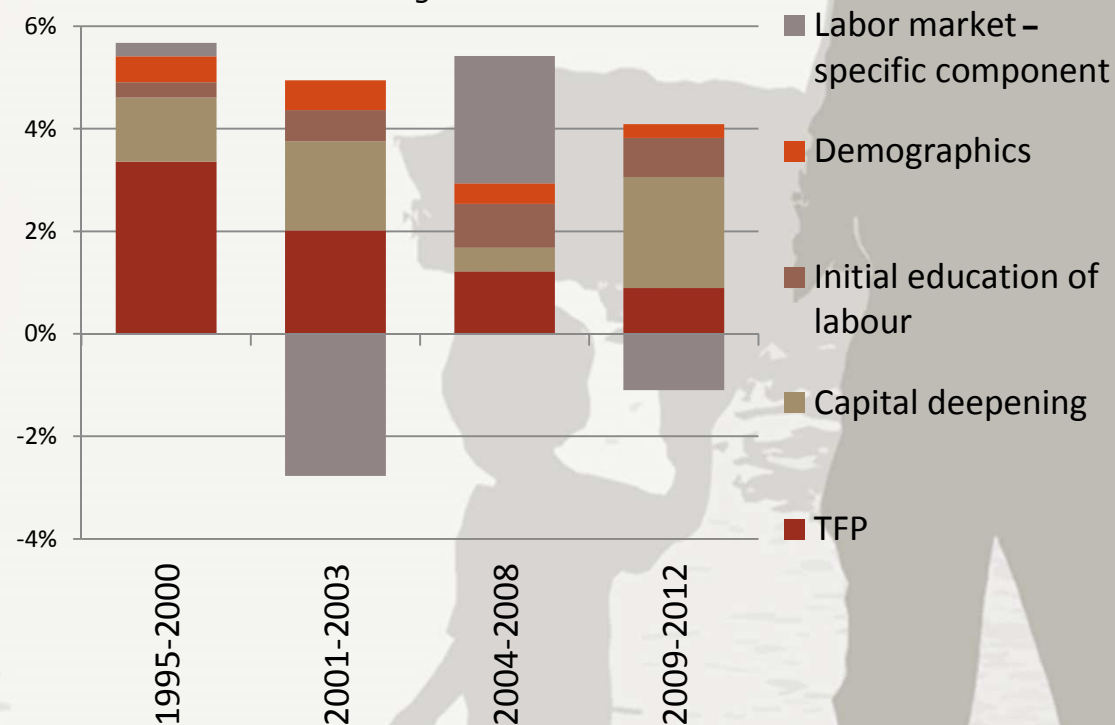
Growth engine is losing steam.

A rapid rise in TFP may be difficult to sustain.

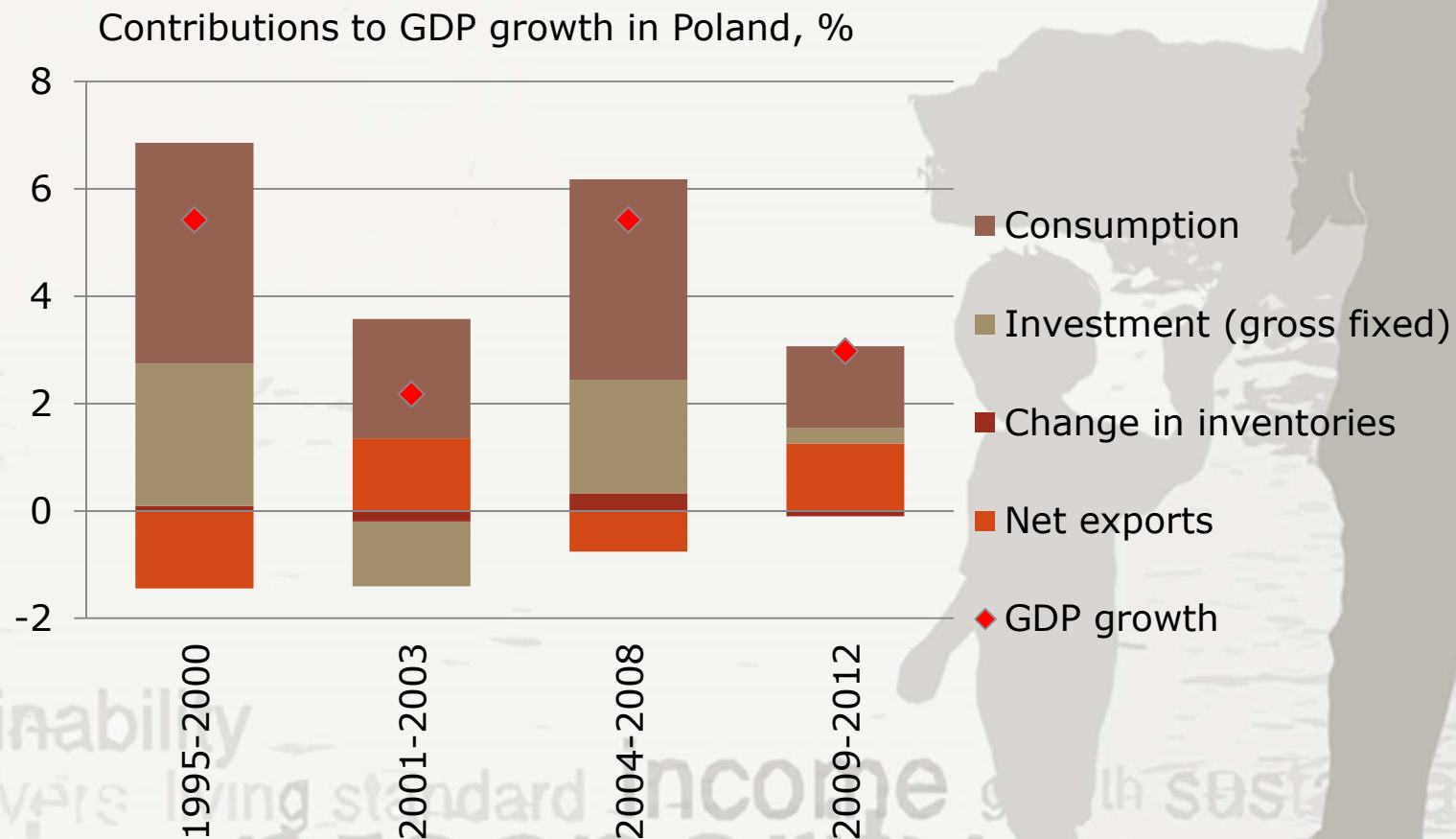
This important source of capital deepening will be gradually phasing out.

Demographic prospects will weigh on labor force.

Contributions to GDP growth in Poland



Growth has been driven by consumption



LONG-TERM CHALLENGES

- *Poland has one of the most rapidly aging populations in the EU.*
 - Aging is likely to affect the supply of labor and reduce both private and public saving, which will depress investment and capital accumulation.
- *Sustaining strong productivity growth will not be easy.*
 - Sustaining robust TFP growth (averaging about 2% for the last 2 decades), even at only slightly above the long-term global projection of 1.5%, will not be easy.
- *Foreign financing may be harder to attract.*
 - Funding via banking channel will be limited
 - A gradual reduction in the EU funds is expected.

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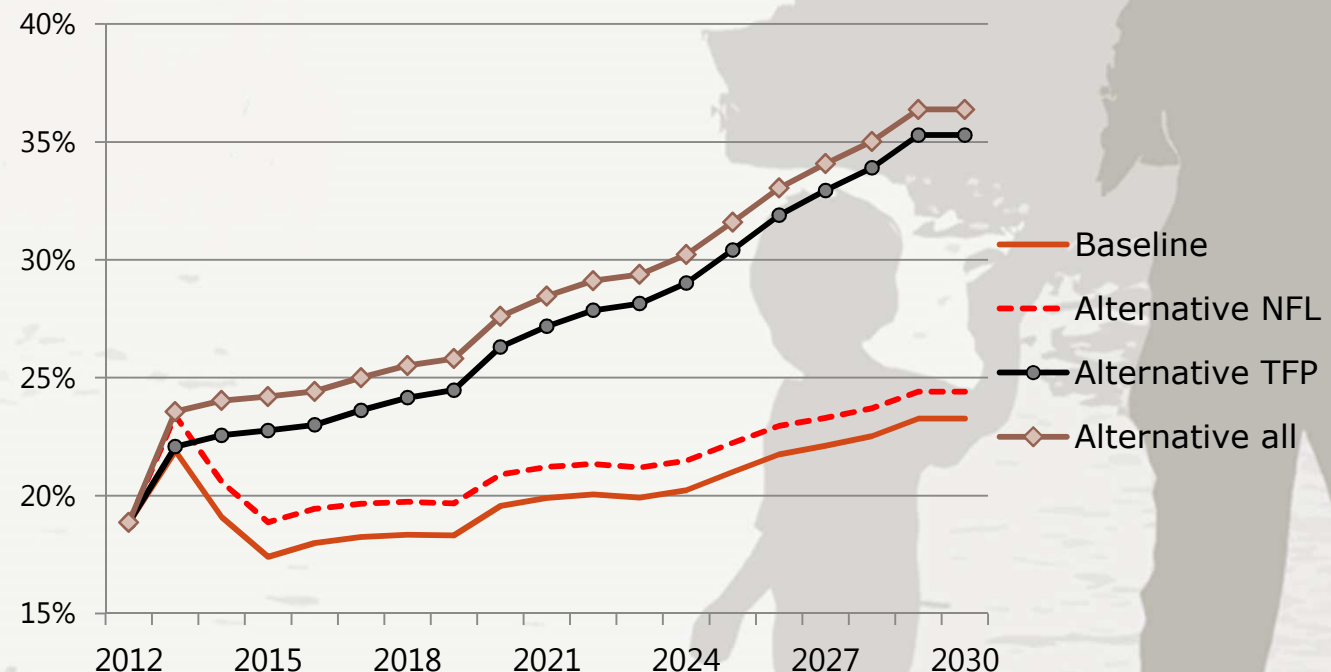
growth

sustainability

prosperity

What needs to be done to sustain economic growth?

Saving rate needs to increase from **18% today** to **23% in 2030** assuming strong TFP growth.

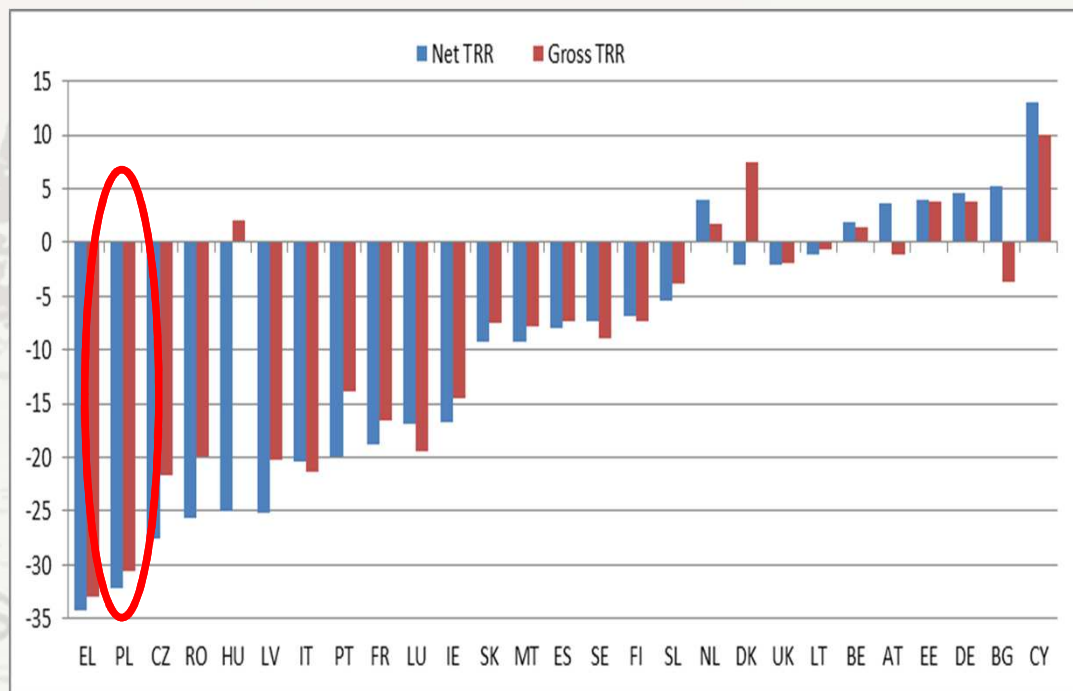


If TFP growth is weaker (1.5% instead of 2%), saving rate needs to jump immediately to **22% of GDP** and then to **over 35% of GDP** by 2030



Public pensions will be significantly less adequate.

Trends in net and gross replacement rate (TRR), 2010-2050,
(percentage point changes in net TRR)



PENSION REFORM 1999



Pension system becomes fiscally sustainable.



Cut in replacement rate increases the risk of old-age poverty.



If replacement rate declines by about 20%, relative poverty rate will increase from today's 20.7% to 22% in 2060

What needs to be done to prepare for retirement?

Higher individual savings are needed to maintain the current replacement rate.

- Currently working cohorts aged 20–50 will have to save about 10% of their annual earnings to guarantee current replacement rates (about 4000 PLN a year per person).

Average Annual Saving Necessary to Guarantee Current Replacement Rates

Age in 2010	20	25	30	35	40	45	50	55
Average annual savings, relative to average earnings	10%	11%	12%	10%	10%	10%	12%	4%

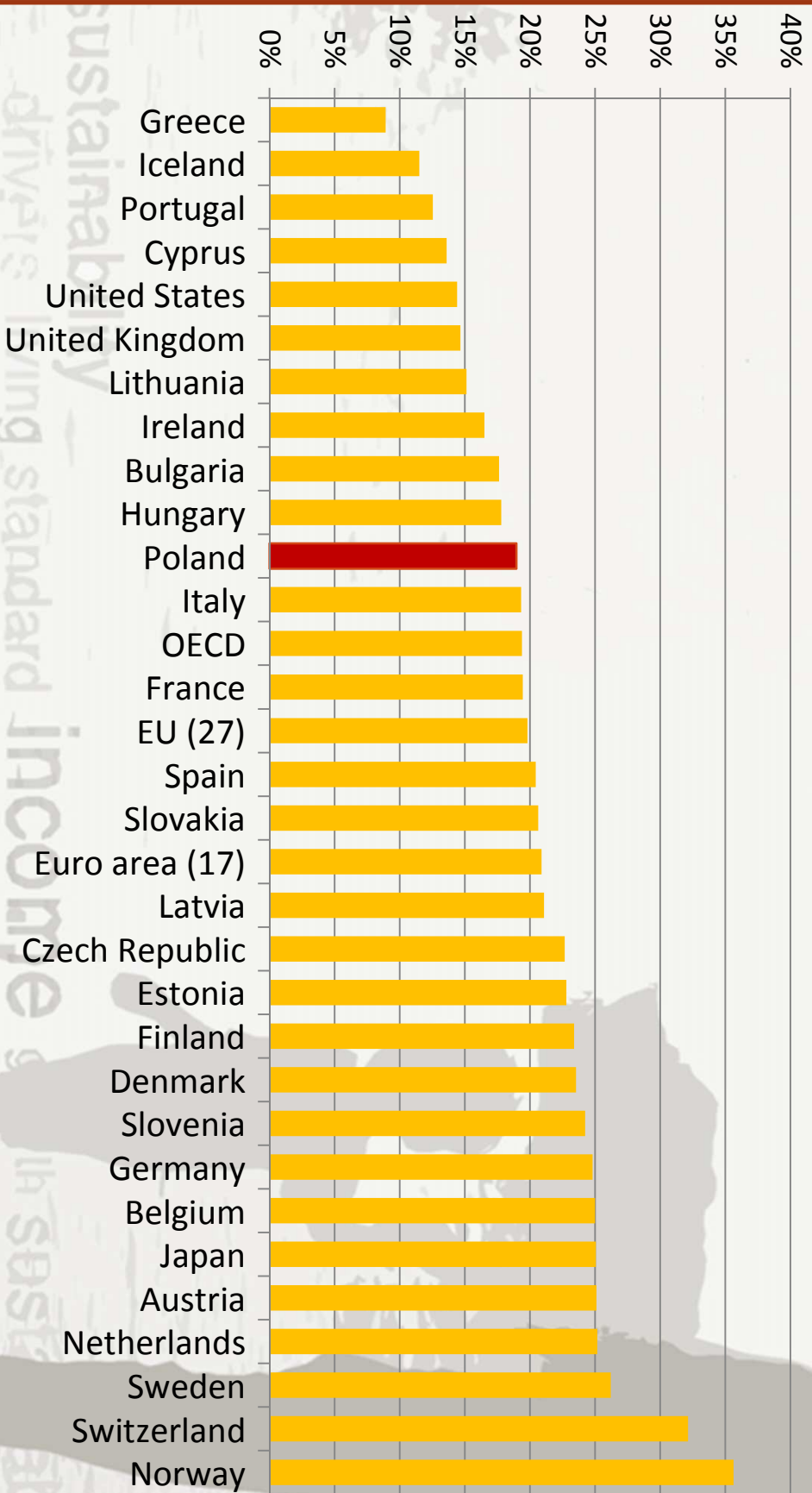
Estimates are based on generational accounts. The calculations show the stock of pension wealth per citizen (for each cohort) necessary to set aside today (assuming the real interest rate of 3%) to keep current replacement rates.

*How much is Poland
saving and what is
the outlook?*

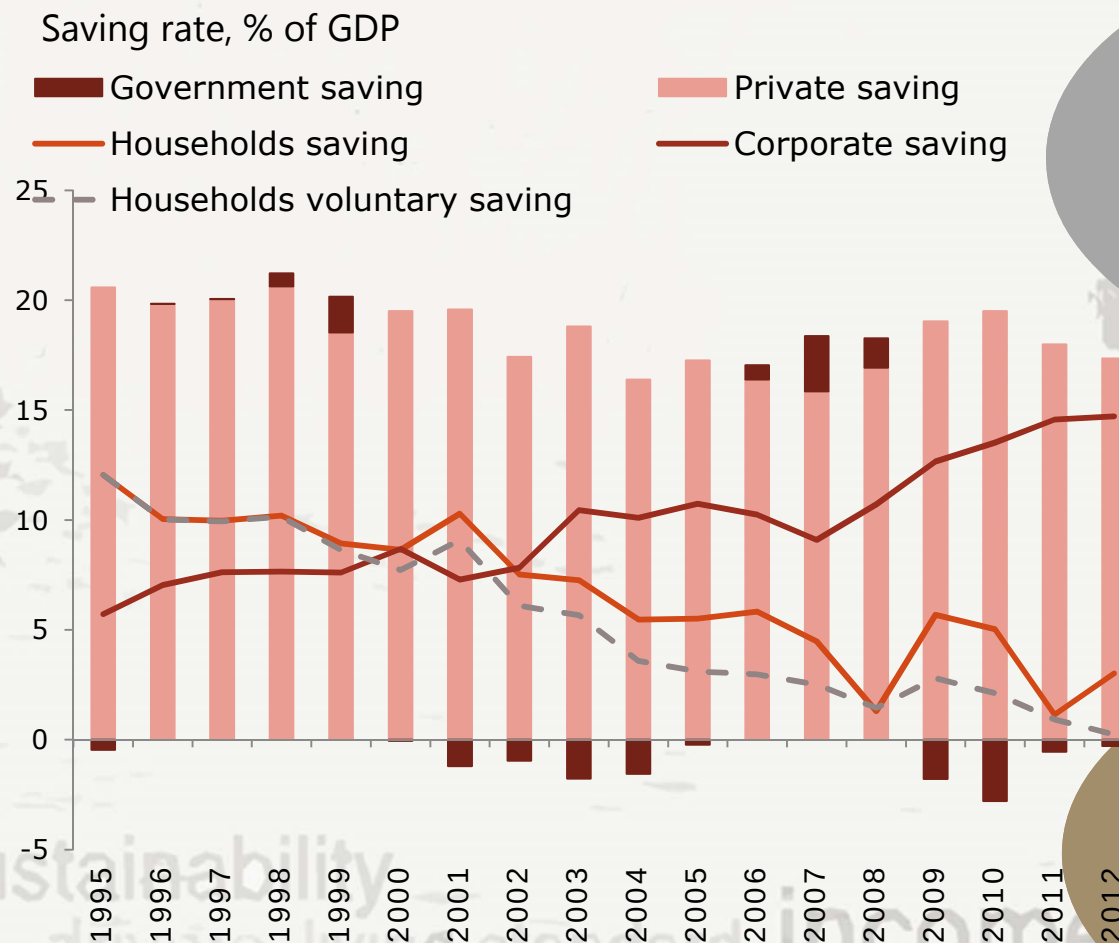
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Domestic saving has been relatively low.

Saving rate, average 2000–2011



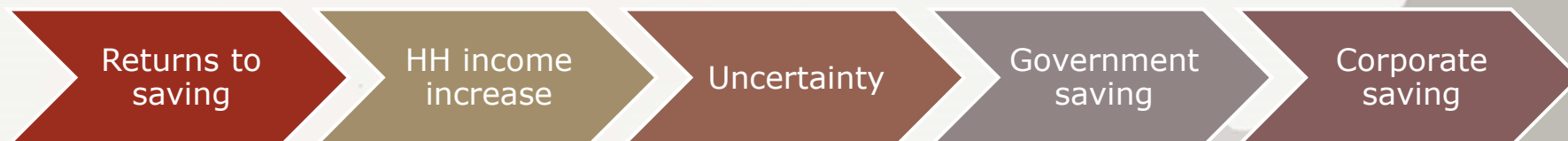
Structure of saving in Poland is a source of concern.



The household saving rate fell to 3% of GDP in 2012, with voluntary saving of households declining even more, to 0.2% of GDP.

Corporate saving has shot up from 55% of total saving in the early 2000s to about 85%.

What has been driving household saving in Poland?



- **Drivers of HH saving in PL:**

- **Recent:** More stable macroeconomic environment, development of the domestic financial system, and progress on real income convergence (together with redistribution of income).
- **Before 2004:** Greater uncertainty and higher return to savings pushed up saving rates until 2004.

- **There was some substitution between public and private saving in Poland.**

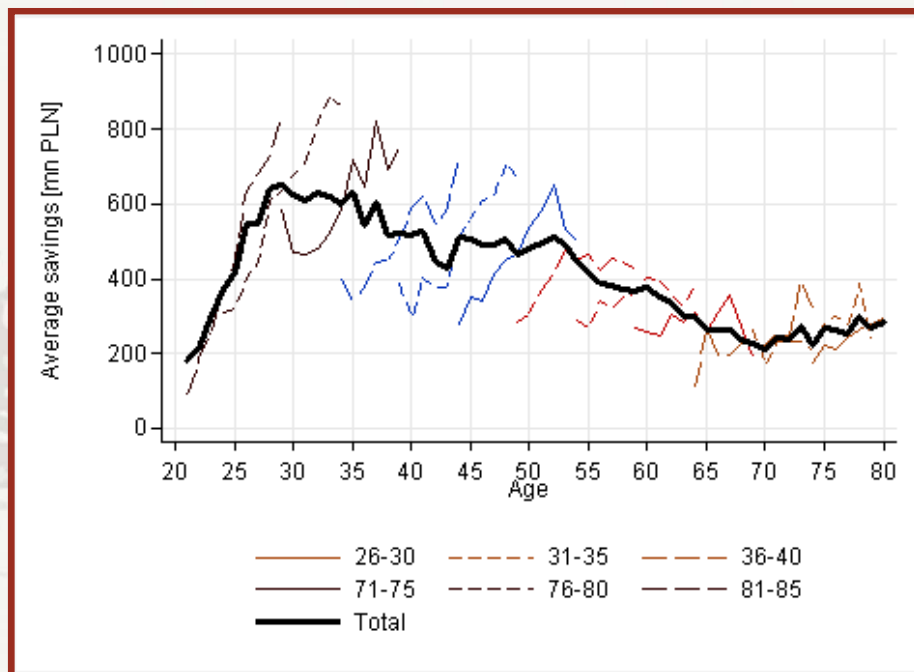
- The household saving offset is estimated to be about 25% in the case of public dis-saving

- **There was some degree of substitution between corporate and household saving in Poland.**

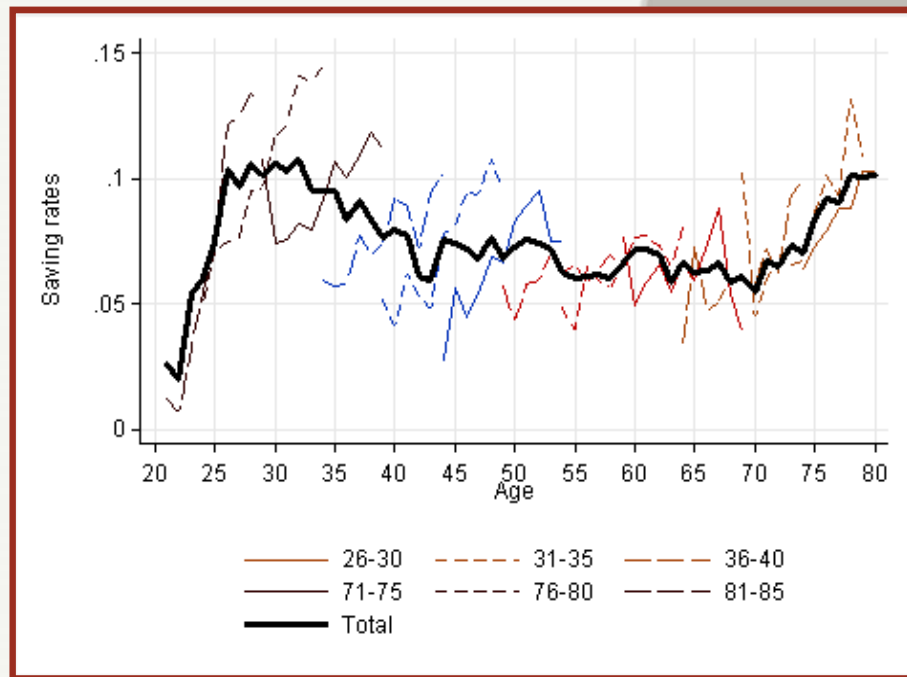
- Since EU accession the substitutability of household and corporate savings has increased (to 20% in 2004–12).

Polish households behave like life-cycle/permanent income savers.

Average savings by cohort

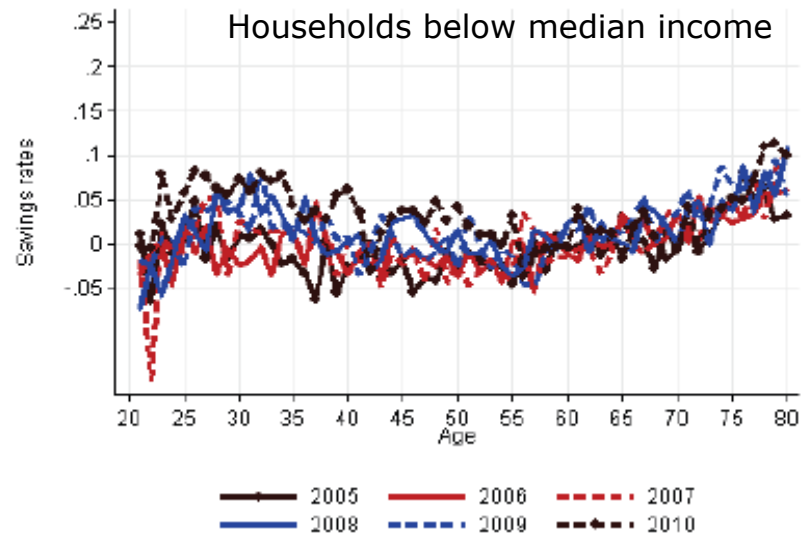


Average savings rate by cohort



- “Hump-shaped” age-related patterns with positive savings at older ages
- “Retirement consumption puzzle”: positive discretionary savings in old age (precautionary and bequest motives for saving)

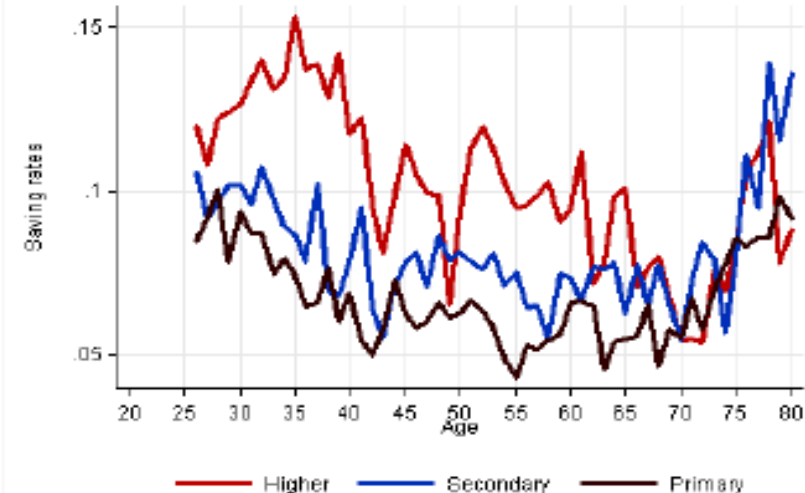
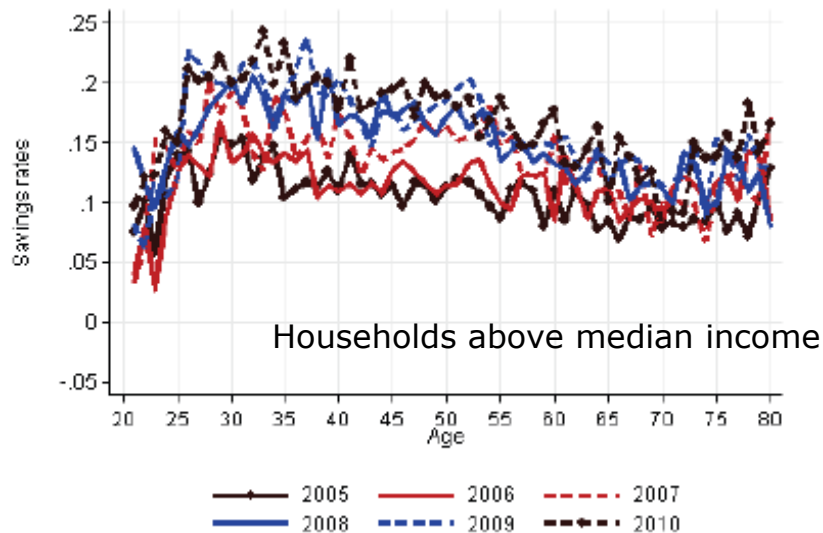
Income level drives household saving.



Saving rates are strongly (positively) related to incomes.

Younger cohorts seem to save more.

Education, size of family also matter.

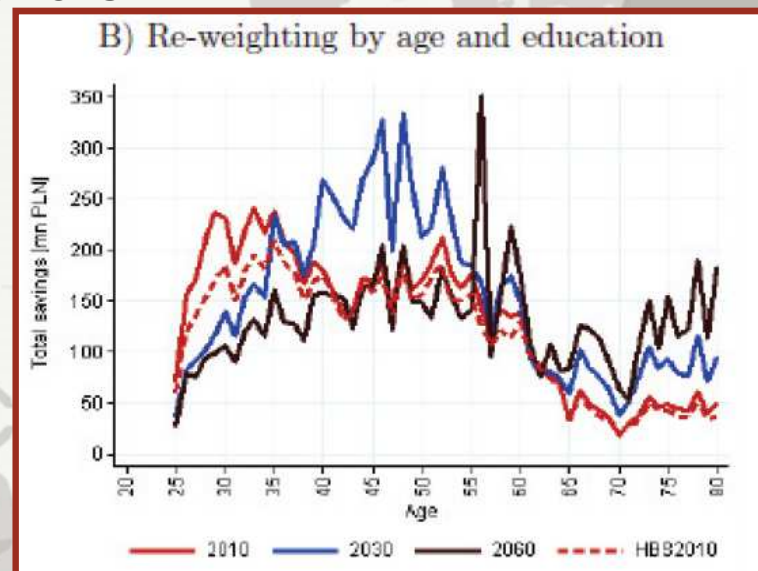
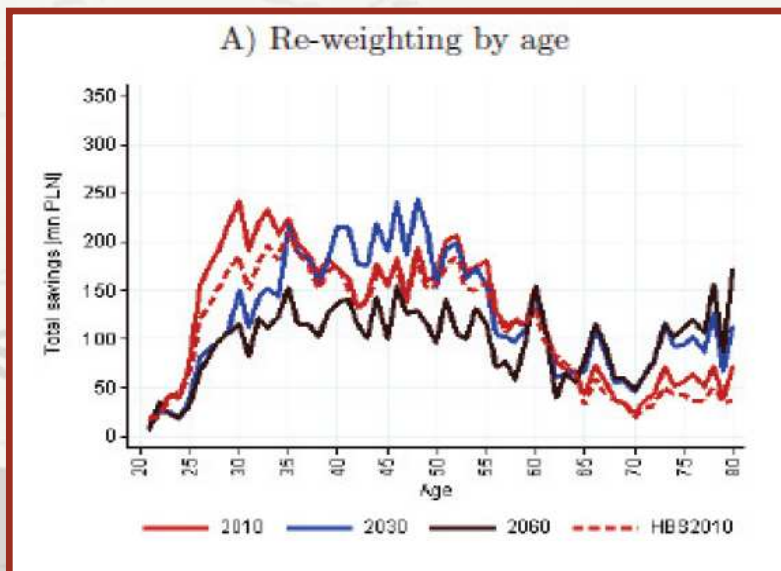


Household Savings Prospects and Aging

Aging combined with increased education level will increase savings by 3% by 2060.

Aging will reduce savings by about 14% by 2060.

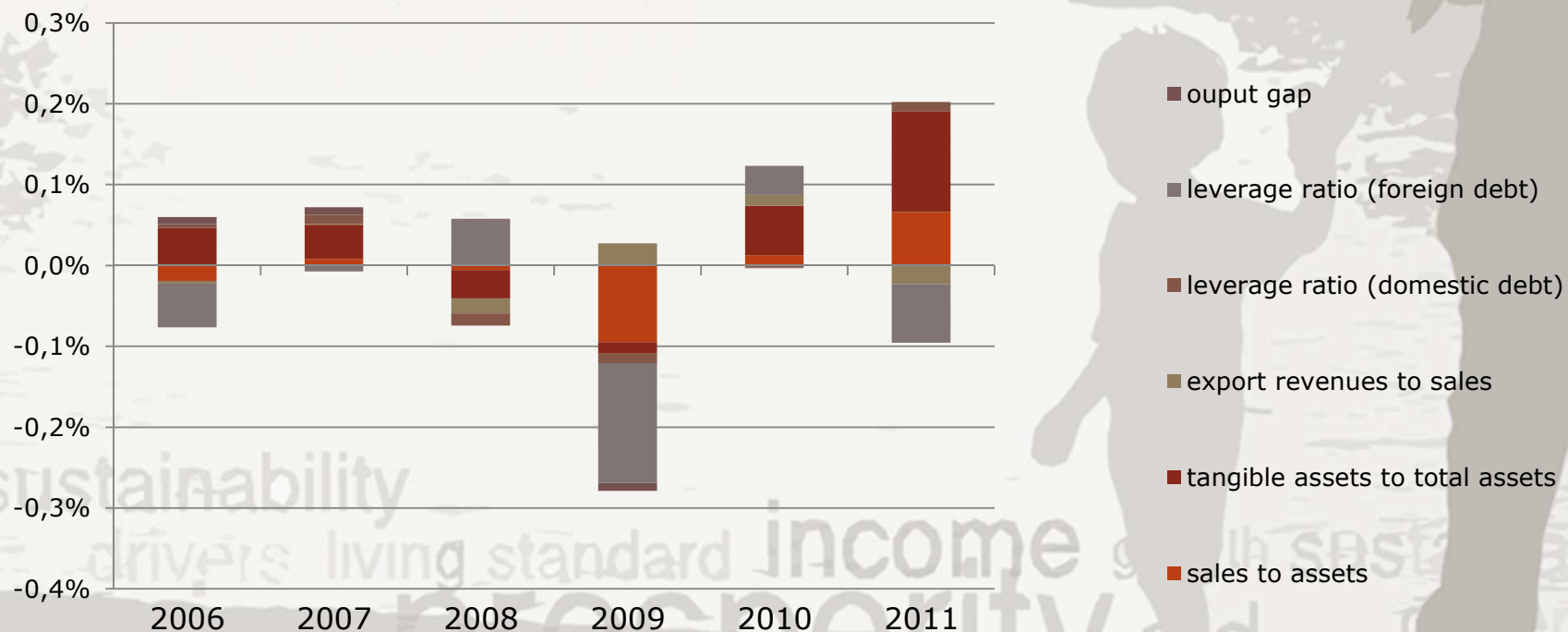
PROJECTIONS



What has been driving corporate saving in Poland?



Corporate saving in Poland, contribution to changes, pps



Why are corporate savings not being translated into investment?

- Little needs to replace depreciated fixed capital.

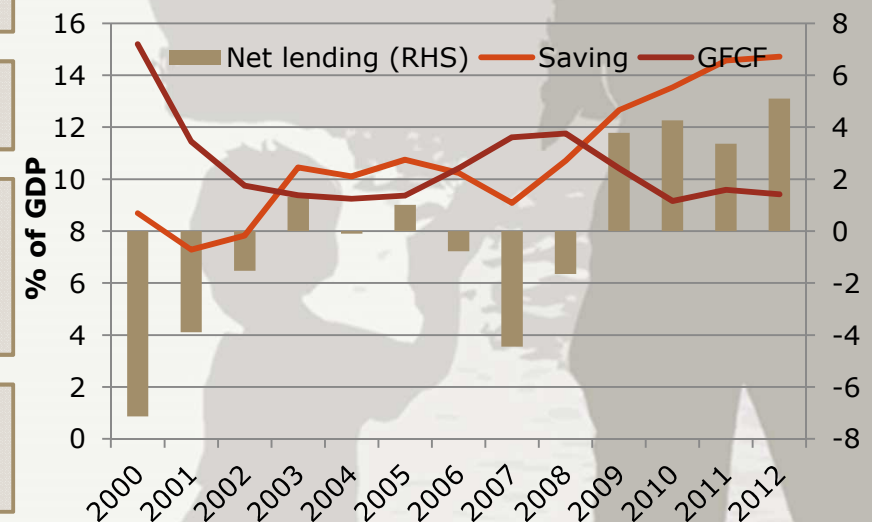
- Limited access to capital (especially start-ups)

- Cheap, flexible labor => higher labor intensity, lower capital intensity

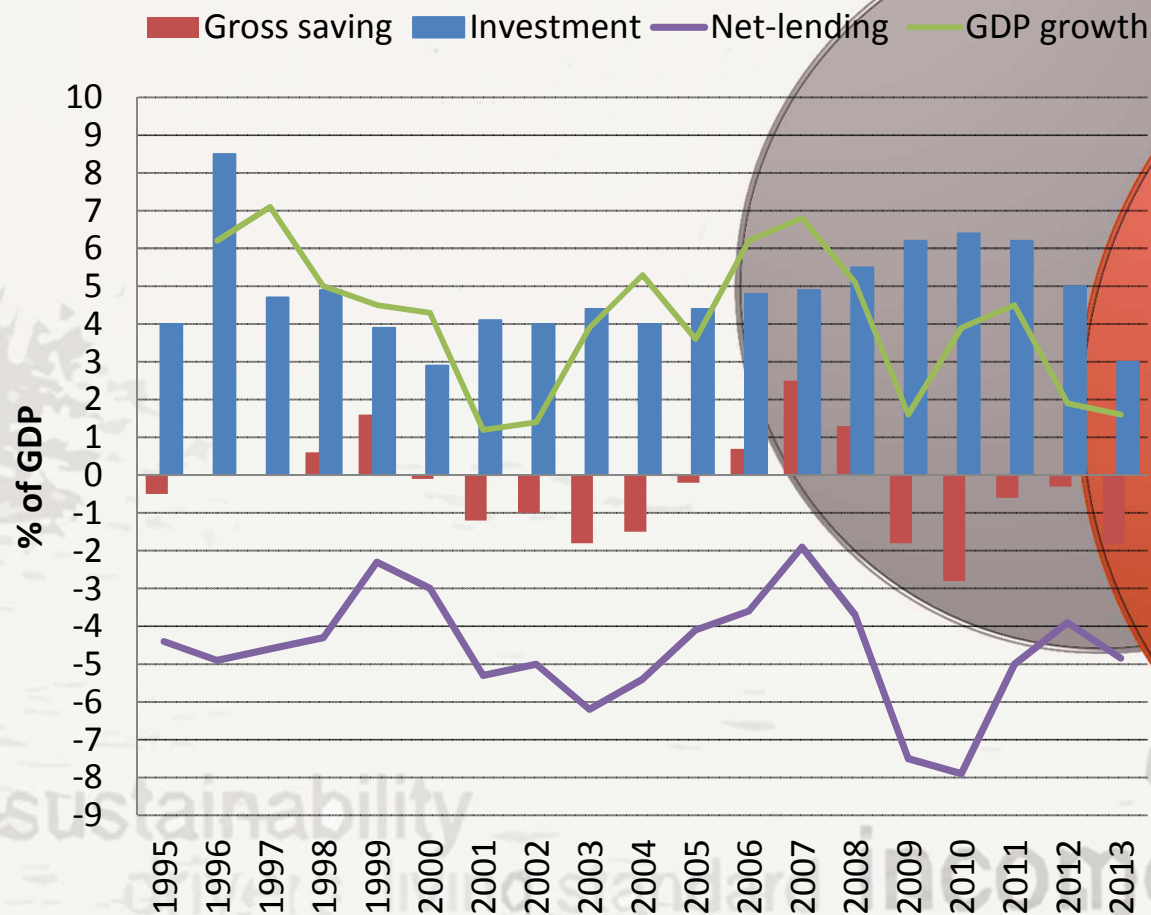
- Inability to attract FDI into knowledge- and capital-intensive sectors

- Too few projects that offer a higher return than other forms of investments

Corporate savings and investment



Though government has dis-saved, public investment has grown.



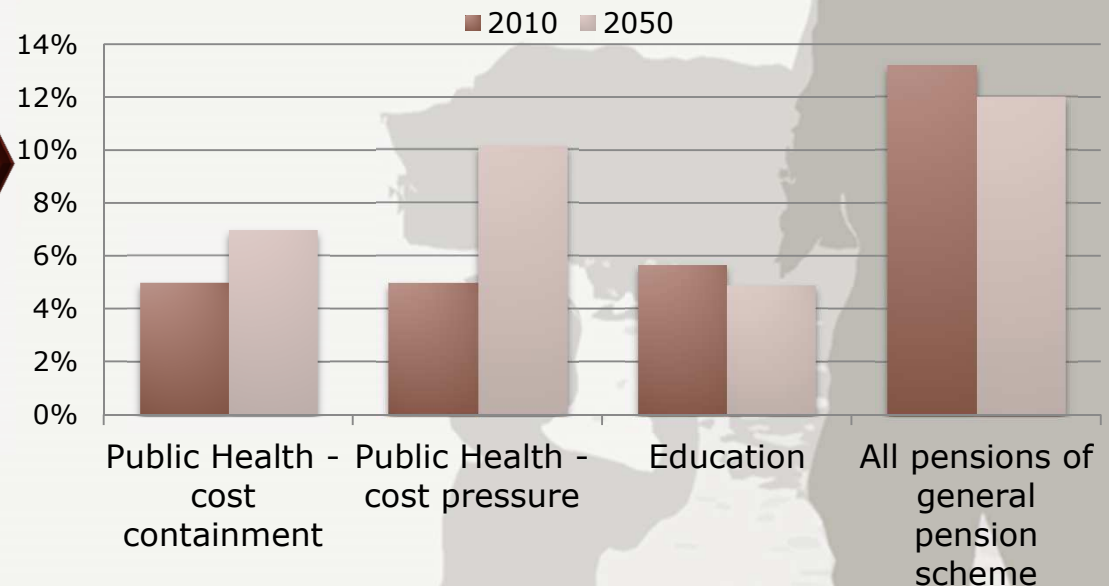
- Except for 2006–08, the Polish government has been dis-saving since 2000.
- Authorities have kept public investment growing above the rate of GDP growth.
- Negative saving coupled with high investment has pushed up government debt.

Government savings prospects depend on the impact of aging.

Increases in age-related spending financed by shrinking work force will reduce government saving and may undermine fiscal sustainability (*assuming investment stays constant*).

Demography pushes up the sustainability gap (SAG) to 129.6 % of GDP.

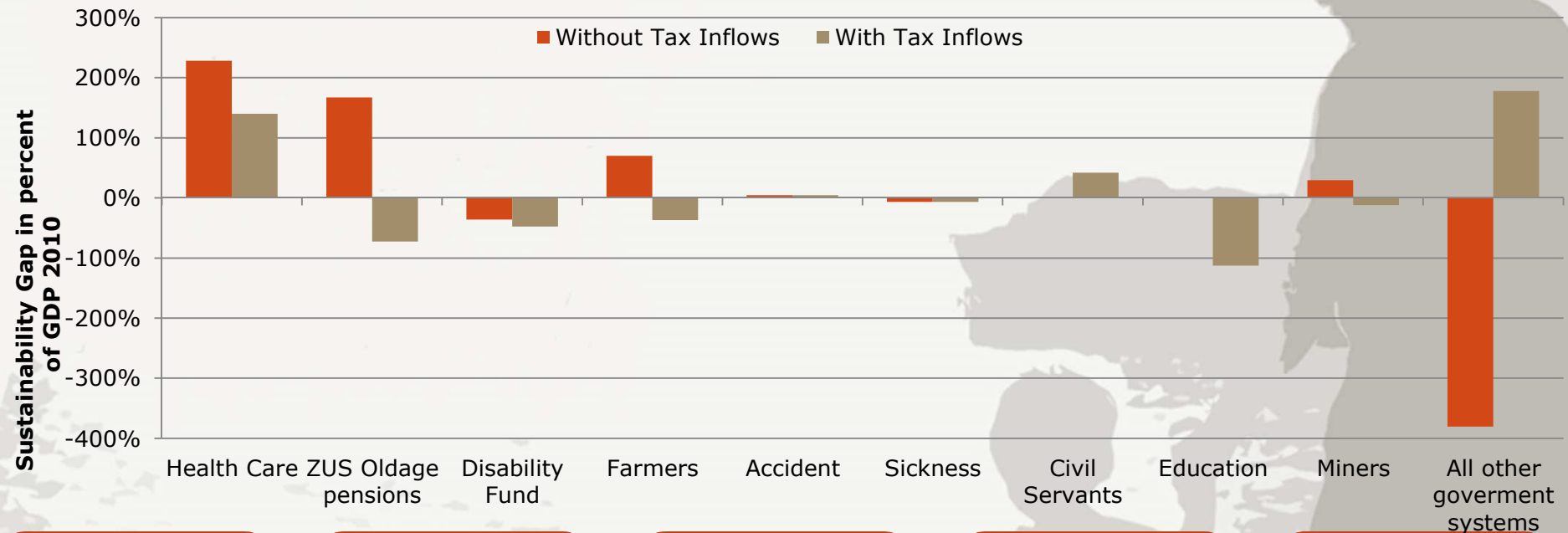
Age-related spending in Poland, GDP



SAG measures public liabilities in relation to base year GDP; includes past debt (explicit debt) and future public debt (implicit debt = sum of future primary deficits) if there are no policy changes.

Health care system drives SAG.

The sustainability gap indicates government dis-saving for each subsystem.



Notional Defined Contribution (NDC) old-age pension system will stabilize in coming decades.

Disability fund seems to be sustainable under current rules.

Education system generates the highest implicit asset in the tax inflow scenario.

The two pension systems with the highest mismatch between contributions paid in and transfers out are those for **farmers and miners**.

The main driver of the sustainability gap in Poland is the public **health care system**.

Is the saving environment right?

YES....
and...NO....

Taxation of savings in Poland is uneven.

Capital income is taxed more than in other Visegrad countries

Taxation favors holding property (holding test period)

Tax incentives have not effectively stimulated HH savings.

Poland taxes retirement savings depending on the choice of savings vehicle

Voluntary private pension system is small (assets: only about 0.75 % of GDP)

Design of pension system and functioning of health system do not discourage HH saving

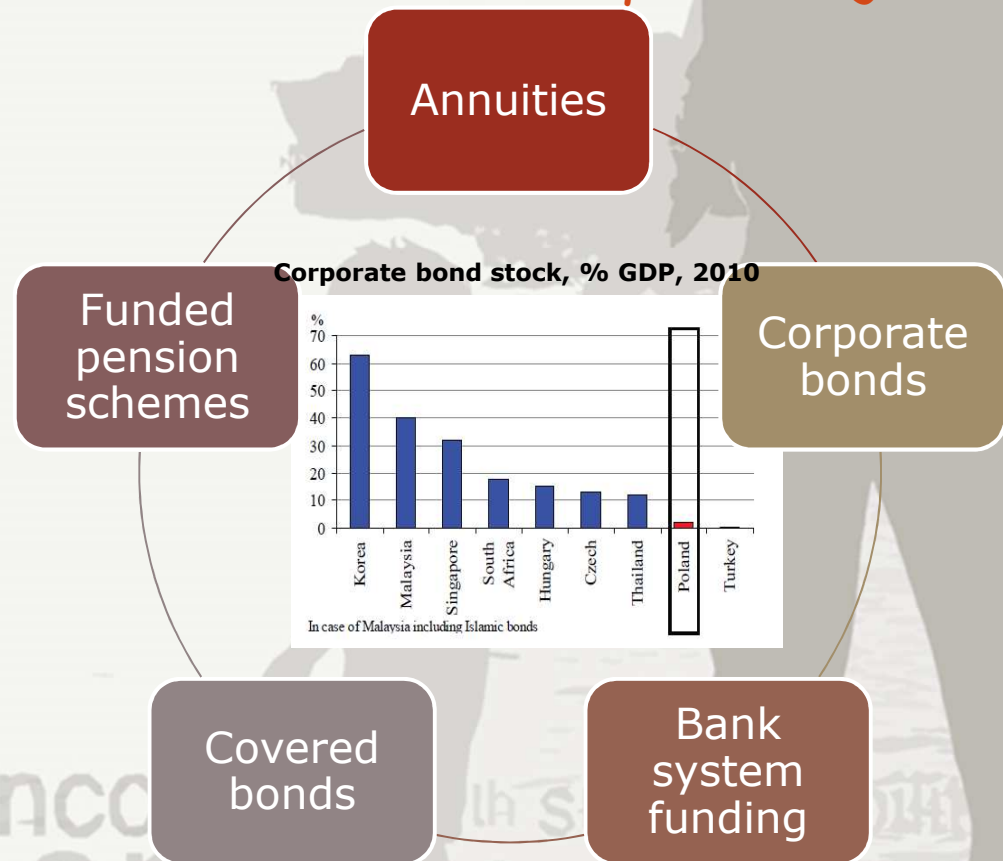
Switch from DB to NDC has reduced the expected replacement rate and incentivized saving for retirement

Health-care system is characterized by low public spending, heavy out-of-pocket payments, and long waiting lists

Further development of Poland's financial sector would benefit savings and growth.

1. The Polish banking sector is in line with peers.
 - But credit/GDP is low, and skewed to housing and consumer credit.
2. Financial markets are more developed than in much of CEE
 - But volatility is high.
3. Cross-sectional studies show financial deepening promotes savings and growth.
 - But only up to credit/GDP ratio of 100%.
 - Ratio in Poland is 54%
4. *Higher private savings can promote a more stable financial system.*

What needs to be developed/changed?



Slajd 28

ARG128

Anne R Grant; 2014-10-14

Are current saving trends sustainable?

- **Household savings** are likely to be reduced as the population ages.
- The challenge will be not **to sustain a high level of corporate saving**, but to translate it effectively into high investment.
- **Government saving** over a longer period depends on its ability to address the impact of aging.
- **The saving environment** could be improved, through changes to taxes and development of the financial sector to promote saving.

*What policies can be
used to boost saving in
Poland?*

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How to increase national savings?

1

- Policies to support income and growth

2

- Policies to encourage households to save

3

- Policies to limit government dis-saving

4

- Policies to substitute for foreign savings

5

- Policies to develop the local-currency capital market

Policies to support income and growth

Increase employment and labor force participation.

- Invest in affordable quality childcare and preschool education.
- Continue to deregulate professions.
- Conduct a comprehensive review of tax and benefit system provisions that apply to families with children.

Support internal and intersectoral mobility.

- Reform the social security scheme by phasing out the special pension system for farmers.
- Enhance the functioning of the housing market .

Improve the education system.

- Improve the quality of higher education institutions.
- Promote lifelong learning.
- Enhance job-matching services.

What savings vehicles would be better for an aging population?

- Savings schemes can increase savings, but only if properly designed.
 - Tax incentives, matching contributions, and financial literacy are not effective in themselves.
- Existing schemes (IKE, IKZE) have not worked.
- A sensible mix of payout options is needed if instruments are to be attractive and useful.
 - Recommended are scheduled payments, annuitization and flexibility to handle precautionary motives.
- Schemes need to rely on the inertia of many participants.
 - Much of income distribution saves passively.
 - Model might be positive experiences in Germany (Reister pensions) and New Zealand (KiwiSaver).

What policies would encourage households to save?

- Revamp state support to the private retirement pension scheme.
Elements of Third Pillar proposal:

- ☐ Compulsory for employers to offer to new employees
- ☐ Available to other employees and those out of employment
- ☐ Automatic enrollment with possibility of opt-out
- ☐ Regular deduction from salary with a matched employer contribution and possibly a government bonus (taxed EET)
- ☐ Schemes and investments approved by a regulator (FSA)
- ☐ Varying risk/return mixes offered to participants
- ☐ Payout methods:
 - Scheduled payments
 - Flexibility possible for some contingencies
 - Deferred partial annuitization (say post-80)

What policies would limit government dis-saving?

Stick to fiscal goals without cutting investment:

- Establish regular comprehensive spending reviews.
- Continue improving the quality of government spending.
- Make current spending more cost-effective and efficient.

Do not delay introduction of measures to moderate the projected growth in publicly-financed age-related spending

- Complete the pension reform by removing pension privileges for certain occupations.
- Resist pressures to reverse the defined contribution pension reform.
- Contain upward pressure on public health spending, while maintaining accessible and quality care (i.e., by limiting coverage of the health system).

What policies could substitute for foreign savings?

Pursue macroeconomic policies to strengthen the balance of payments.

- Pursue stable and restrained demand management policies, both fiscal and monetary:
 - Attract foreign saving in the form of long-term direct and portfolio investment,
 - Keep the exchange rate floating (prior to euro adoption),
 - Ensure export competitiveness.

Implement new regulatory requirements (Basel III and CRD IV).

What measures could build up local capital markets?

- The relative importance of banks and capital markets is a general European issue.
- Act on earlier recommendations for capital market development.
 - (FSAP 2013 and EBRD 2011)
- Apply NSFR firmly.
 - Forces banks to issue longer-term bonds and encourage deposit-taking
- Reinvigorate the pension fund management business by action on second pillar (OFE) and third pillar.
 - Change benchmark and require minimum duration to discourage short-term and herding behaviors.
- Take action to facilitate bond issuance (e.g. covered bonds, corporate bonds, repo market rules, insolvency reform).

THANK YOU

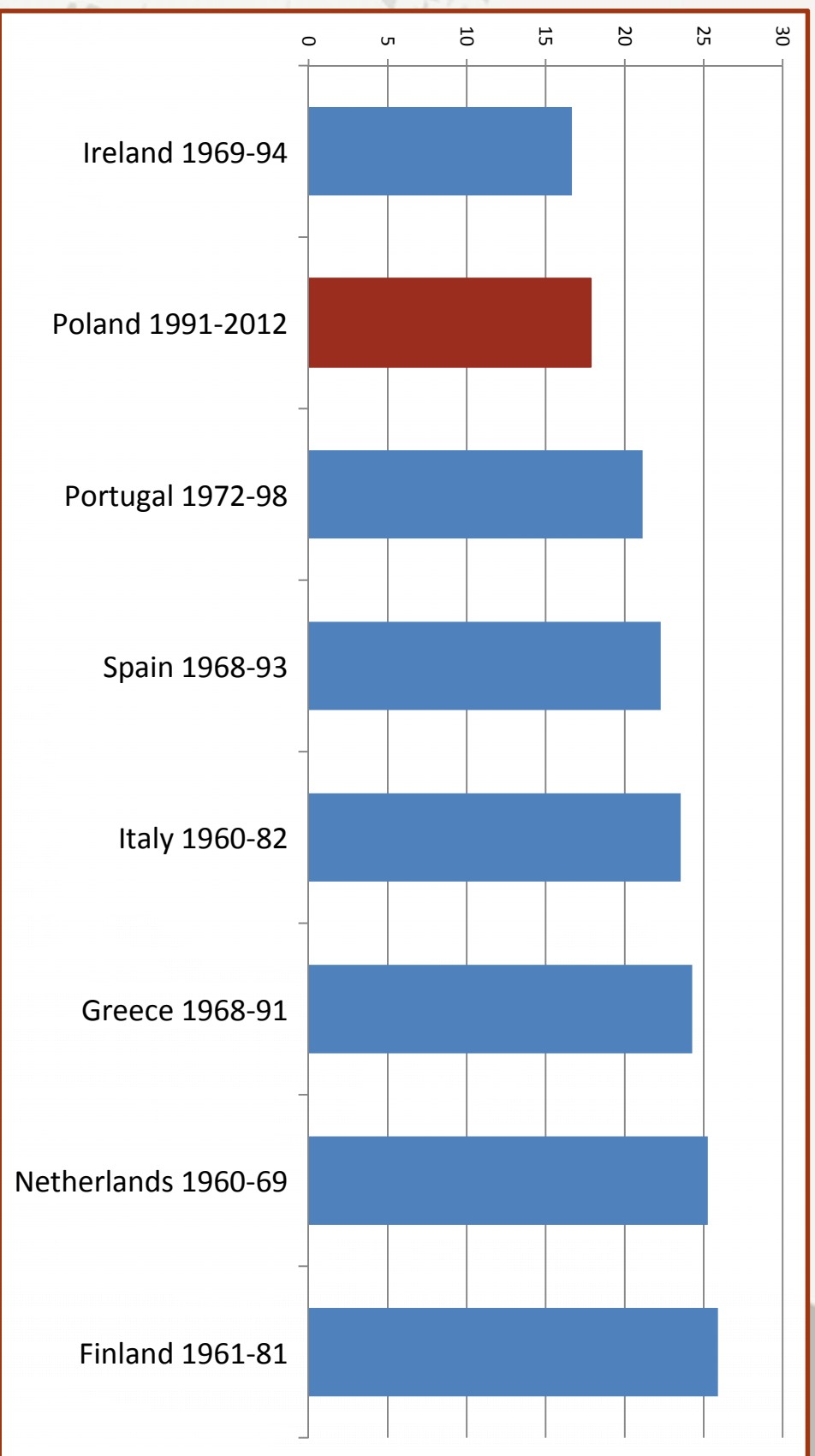
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Supporting slides

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Domestic saving has been relatively low

Saving rate, % of GDP



Model Linking Saving and Growth in Poland

- To illustrate the relationship between saving and economic growth in Poland a simple theoretical model is used to perform simulations (until 2030) under various scenarios.
- The model is neoclassical in the sense that the factors of production are subject to decreasing marginal returns.
- Recognizing that private saving is not directly a policy lever, it was assumed that the private sector saving rate responds endogenously to the variations in the public saving rate and in the other fundamental variables of the economy.
- The model was constructed and calibrated mapping available data for Poland into the structural parameters of the model.
 - The private saving regressions based on data for 28 OECD countries.

	Baseline	Alternative
TFP growth	Averaging over 2% during 2014-2030 (with a peak of 2.22% in 2016)	1.5%
NIIP relative to GDP	Constant at 2012 level (67% of GDP)	Gradual reduction to about 50% of GDP (towards the limit of 35% of GDP specified in MIP)*
Public Saving/GDP	Structural deficit to decrease from 3.9% of GDP in 2012 to 2.5% of GDP (in 2015-20) and later to widen again to 3% until the end of the simulation period	Considerable fiscal consolidation to meet MTO (structural deficit of 1% of GDP) in 2016 (following the European Council recommendations) **
Impact of aging on the saving rate	-0.047 (regression coefficient estimated for Poland)	-0.29 (regression coefficient estimated for already aging EU countries)

Household saving rate: time series regressions for Poland

	1Q1999-4Q2012	1Q1999-4Q2004	1Q2004-4Q2012
	(1)	(2)	(3)
Constant	-0.136 (-0.2)	0.061 (3.7)	0.146 (4.7)
Household saving rate (-1)	0.465 (3.5)	0.485 (4.8)	0.33 (2.6)
Household saving rate (-2)	0.066 (0.4)	0.065 (0.6)	0.059 (0.4)
Household saving rate (-3)	-0.08 (-0.5)	-0.076 (-0.6)	-0.085 (-0.6)
Household saving rate (-4)	-0.199 (-1.3)	-0.142 (-1.3)	-0.203 (-1.7)
Dependency ratio	0.175 (0.3)		
Log of terms of trade	0.008 (0.1)		
Log of real interest rate	0.512 (3.1)	0.44 (4.6)	-0.424 (-1.7)
Log of consumer price growth	0.119 (1.5)	0.161 (3.2)	-0.208 (-1.3)
Unemployment rate	-0.103 (-0.6)		
GDP volatility	-0.001 (-0.2)		
Log of real HSH disposable income	0.018 (0.3)		
Log of real private HSH income growth	0.129 (1.9)	0.157 (3.3)	0.13 (2.4)
Log of labor productivity growth	0.076 (0.5)		
M2 to HSH disposable income	-0.036 (-1)	-0.01 (-1.8)	-0.022 (-2.7)
Credit to private sector to HSH disposable income (DI)	0.004 (0.1)		
Household financial net worth to HSH DI	-0.003 (-0.4)		
Government savings to HSH DI	-0.255 (-1.8)	-0.277 (-5)	-0.249 (-4.6)
Nonfinancial corporate savings to HSH DI	-0.117 (-0.8)	-0.132 (-1.6)	-0.202 (-2.2)
Adjustment in pension funds to HSH DI	0.026 (0.3)		
Method	ols	ols	ols
Number of observations	52	52	36
Adjusted R-squared	0.960814	0.967425	0.911762

Re-weighting methodology

- The method of re-weighting used by us follows Gomulka (1992) and Creedy (2004) and relies on adjustment of household population weights
- The re-weighting exercise was carried out in two stages to account for changes in the age structure and in the population composition with respect to the level of education:
 - weights adjusted to correct for age distribution only;
 - weights adjusted to correct for age distribution and cohort-specific education attainment, which also reflects earnings potential (scenario 2).
- In this case each age group in the population projections was divided into three education-specific subgroups and the re-weighting is done to match this extended set of criteria. Education levels for currently observed cohorts were taken from the data, while for younger cohorts (for whom we still did not know the education levels) we assumed education proportions of the youngest cohort in the 2010 data set
- For the interpretation of the results, it is important to note that the re-weighting exercise, by assuming unchanged levels of incomes, keeps also the relative value of incomes by education groups unchanged, i.e. assumes that the relative returns to education will remain unchanged despite the changing composition of education groups. This assumption is important as in the exercise education is essentially a proxy for income levels.



Generational Accounts methodology

- Generational accounting—a concept originally developed by Laurence J. Kotlikoff, Alan J. Auerbach, and Jagadeesh Gokhale—answers the hypothetical **question: if policy remained as it is for current generations for the rest of their lives, how much would they pay in net taxes and how much would future generations pay?** A basic assumption is that there is no default and no free lunch: all net liabilities transferred forward must be paid for eventually
- Generational accounts indicate the net present value amount that current and future generations are projected to pay to the government throughout their lives. The accounts can be used to assess the fiscal burden current generations are placing on future generations.
- Generational accounts can also be used to calculate the policy changes required for achieving a generationally balanced and therefore sustainable fiscal policy—one that implies equal lifetime net tax rates on today's newborns and future generations. For further discussion, the reader is referred to Auerbach, Gokhale and Kotlikoff (1991) or Auerbach and Kotlikoff (1999).



Higher private savings can promote a more stable financial system

- Foreign savings are important for growth
 - But most stable form is FDI
 - Excessive use creates balance of payments vulnerabilities
 - Inflows through banking system created vulnerabilities (sudden shocks, FX exposure) in region and Poland
- Basel III and CRD IV emphasize net stable funding ratio (NSFR)
 - More bank funding through domestic deposits and capital market sources
- Reduced vulnerability only to extent savings invested in bank deposits or capital market instruments

