

The Actuarial Profession
making financial sense of the future

Pensions, benefits and social security colloquium 2011
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Automatic Balancing Mechanism and Social Security

25-27 September 2011

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Points of departure

Why a public involvement?

- Poverty relief
- Myopic behavior
- Market failures

It is the outcome that is of interest

- See the whole system
- Adequacy dependent on many factors outside pensions
- In Sweden a long range of subsidizes and benefits in kind

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The new Swedish pensions system

Parts

- Minimum Guarantee
- Earnings related pension with two sub schemes
 - PAYG 16% of covered earnings
 - Individual Account 2,5 % of covered earnings

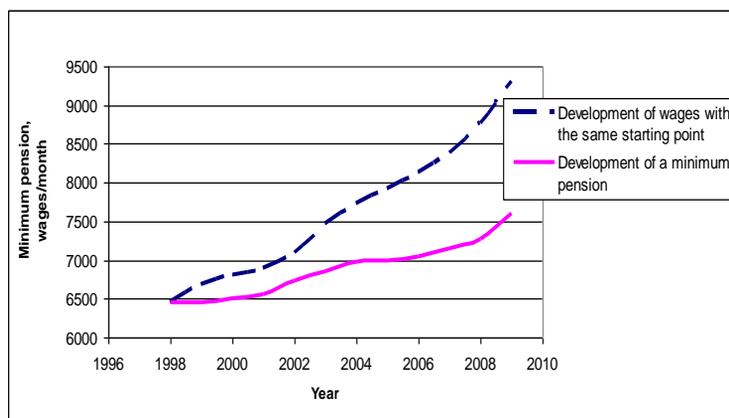
Extensive transitional arrangements

- Old pension system affects first years pension until 2019
- Final distribution between sub schemes for first years pension only 2040 (44)

Minimum guarantee is indexed to cost of living not to wages. Comparison of development 1998-2009

Minimum guarantee

- is meant to follow cost of living even in the long run.
- This is not fair and not very probable

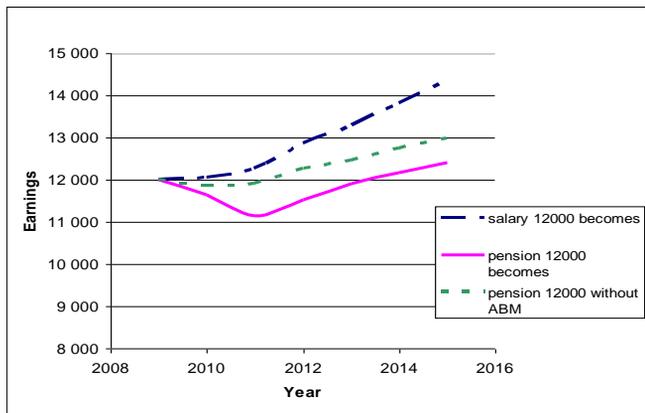


Development until 2015 of a salary and a pension, starting from 12,000 SEK a month each in 2009

Reasons for the development

- Pension follows wages, that is a good feature
- But with a deduction each year of 1,6%, that needs further analyses
- On top of that is an Automatic Balancing Mechanism (ABM): That is not fair

This diagram illustrates how indexation in the new PAYG scheme will function



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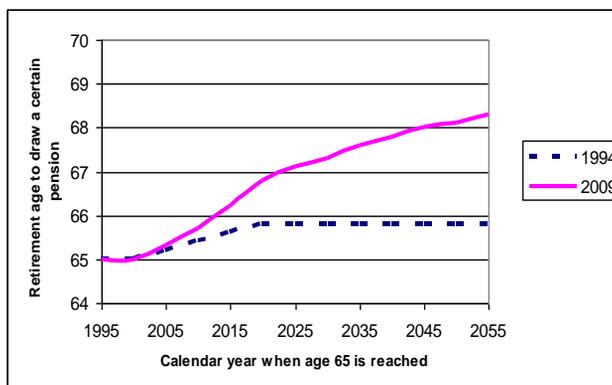
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Age of retirement at different years in the future, needed for a certain pension level, as forecast 1994 and 2009

Huge differences between 1994 and 2009

- No statutory pension age
- Not a word about the ABM
- What shall the individual plan for?
- And what about employment opportunities?

First years pension is based on contributions paid, age of retirement and remaining life expectancy



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To sum up: These are the rules for a pension system meant to “stand unchanged up until next Ice Age”

Minimum guarantee

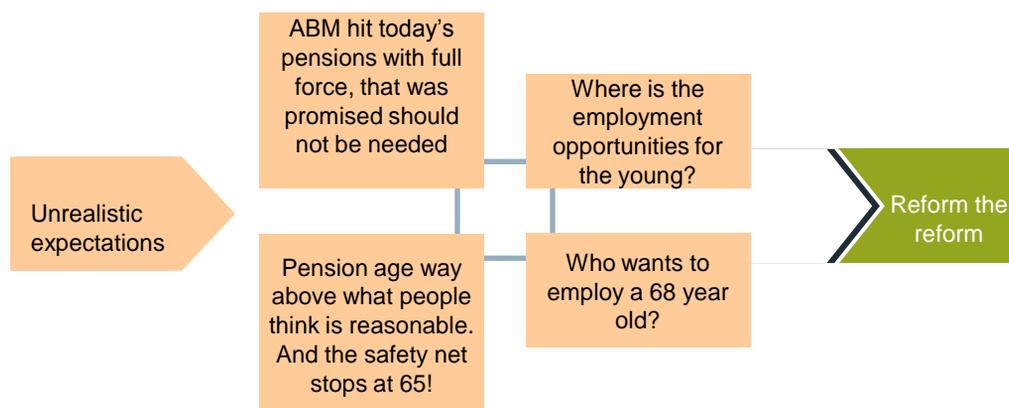
- Indexed to cost of living, hence successively reduced compared to wages
 - Pure political will (stubbornness?)

PAYG 16% completely automated, contribution defined

- first year depends on
 - contributions over the individuals life time
 - age of retirement and life expectancy
- Yearly indexed
 - Pension rights to average wages
 - Pension in payment to average wages less 1,6%
 - Pension rights as well as yearly pensions subject to ABM

Individual Account 2,5%, conventional, contribution defined

Political unrest has emerged. Social Democrats request changes, as do unions and senior citizens



Now we turn to some technicalities concerning the PAYG scheme; **A framework for analyses**

Description	Characteristics	Examples	Label
PAYG schemes "with interesting new features"	Pension age dependent on demography, indexation dependant on wage growth etc. With or without explicit rules about when politicians shall intervene.	Germany, Canada, Japan, Finland, Norway etc	Automation of the first order
Stable contributions into the indefinite future	Automation of the first order plus contributions as basis for pension rights plus a pledge to unchanged contributions <i>Can not function with-out some additional feature</i>	Latvia, Italy, Poland, Sweden	NDC
A fully automated scheme	NDC plus an automatic balancing mechanism based on the financial balance itself	Sweden	Automation of the second order

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Automation of the second order: The Swedish ABM

Balance Number=

Contribution assets +Buffer fund /

Registered pension liabilities

Contribution asset= Turnover duration*today's contributions

- **Indexation reduced when Balance number is below unity**
- **Said to be more stable and trustworthy than "conventional actuarial analyses"**

Let's study if that seems probable!

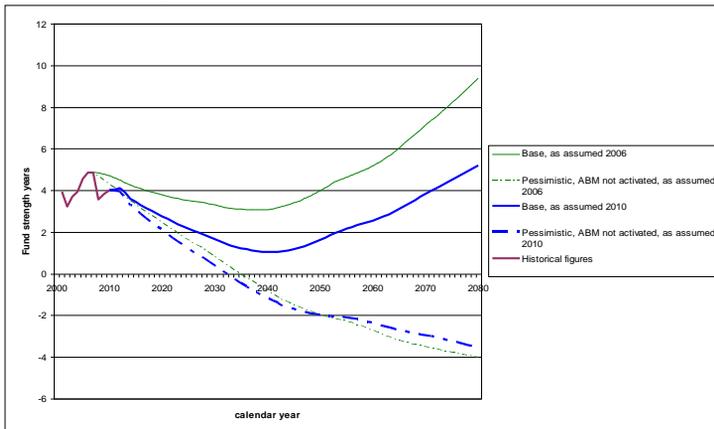
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Projections 2006 and 2010 concerning the buffer fund, measured as years pension expenditure it can cover

- It is a big buffer fund to begin with
- The strain on the buffer fund peaks around 2040
- Big differences between 2006 projections and those of 2010

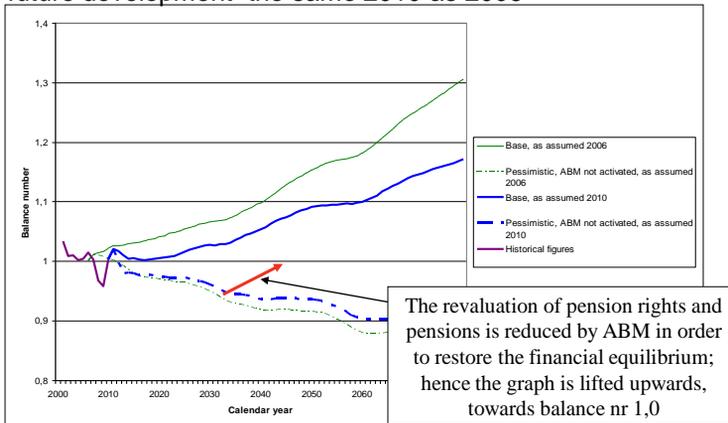
A base scenario and a pessimistic scenario. Assumptions for future development the same 2010 as 2006



Projections 2006 and 2010 concerning the Balance Number

- See the development 2000-2010. Not very stable!
- See the big differences between 2006 projections and those of 2010.
- A crisis 2008-2010 make a dramatic difference for future development
- These are the formulas that steer the function of ABM

A base scenario and a pessimistic scenario. Assumptions for future development the same 2010 as 2006



The revaluation of pension rights and pensions is reduced by ABM in order to restore the financial equilibrium; hence the graph is lifted upwards, towards balance nr 1,0

Conclusions about the new PAYG scheme under ABM

Stable?

- No, very dependant on the point of departure
- With Balance Number close to unity, even small deviations activates ABM
- A closer scrutiny reveals weaknesses in the development of basic factors underlying the Balance Number

Makes people take an individual responsibility?

- A system much too complicated...
- ...with politicians pretending that they have solved all problems for eternity...
- ...which ordinary citizens realize is simply a lie...
- ...is a system that does not support or stimulate individual pension planning

So, automation of the second order is not a good idea!

A way forward

- Abolish the automatic balancing mechanism in its current form
- Make yearly calculations using the formulas now underpinning the ABM
- Establish a five year period as a basis for a political review, were the balance between pension levels, contribution needs and pension ages for the whole pension system are discussed
- Charge the government with a responsibility to suggest to Parliament which changes, if any, needs to be done.
- Establish a renewed automatic formula of the Canadian or German type, that kicks in if the politicians fail to respond to financial needs, as established by calculations under such a renewed formula.
- Continue to inform individuals of forecasts of possible pension levels in the future, but with much clearer description than today about the uncertainties, both when it comes to external development and individual work pattern, as well as about which will be the future rules of the pension system