The logical sustainability of the pension system.

The Italian and Swedish cases

Massimo Angrisani

ICPSS 2013

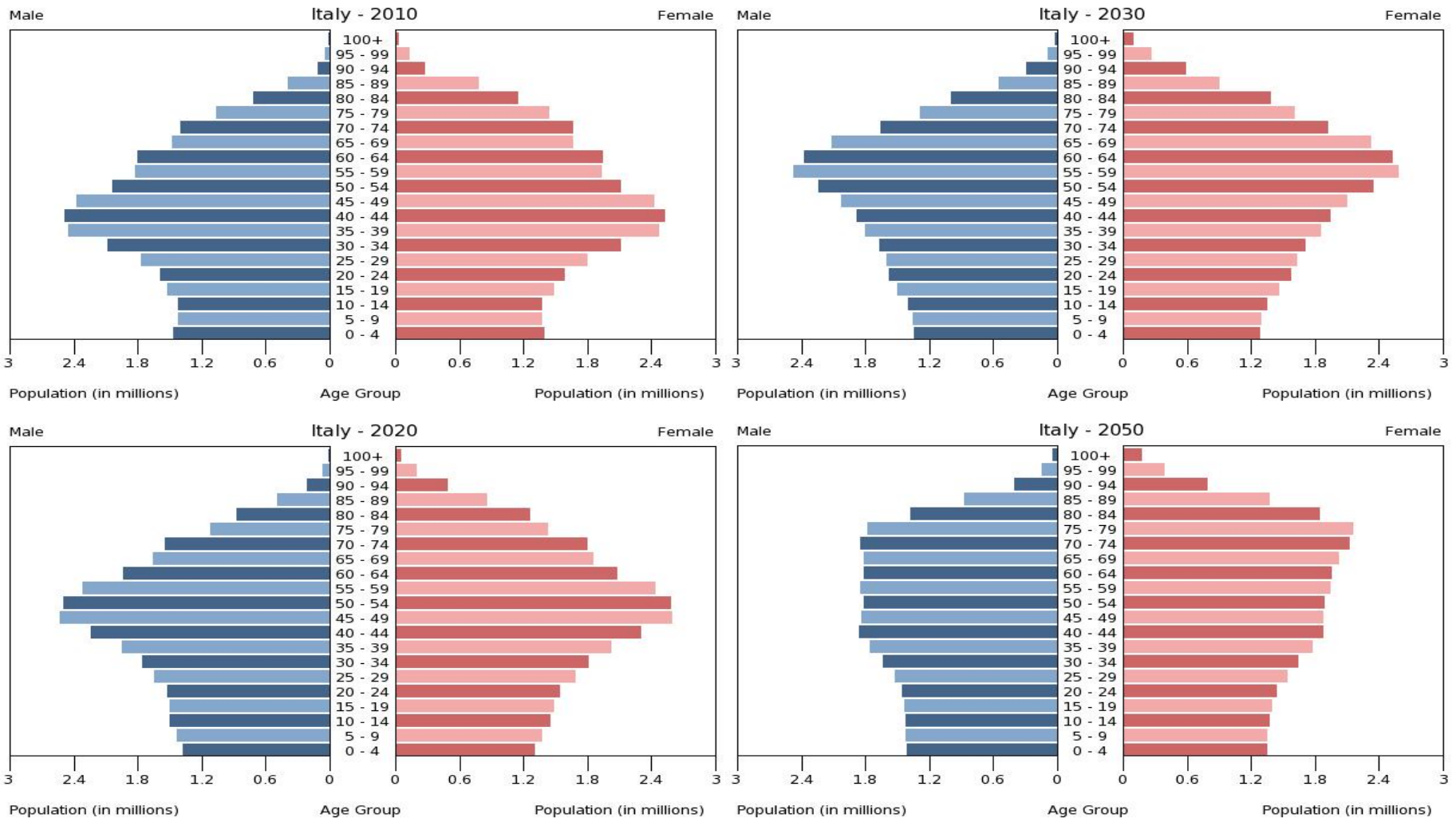*International Conference on Pension Systems Sustainability*

Rome, February 21st 2013

Outline

➢Demographic Structures

➢The model of partially funded pension systems

➢The logical sustainability for partially funded pension systems

  ▪ *Model description*

  ▪ *The Model under the assumption:*

    – *constant contribution rate*

    – *system in a stabilization phase*

      ▪ *The Model for systems which have to drain a "demogaphic wave"*

➢The logical sustainability model and the Italian case

➢The Swedish case

Italy

Sweden

How to manage the sustainability

of the relative pension systems?

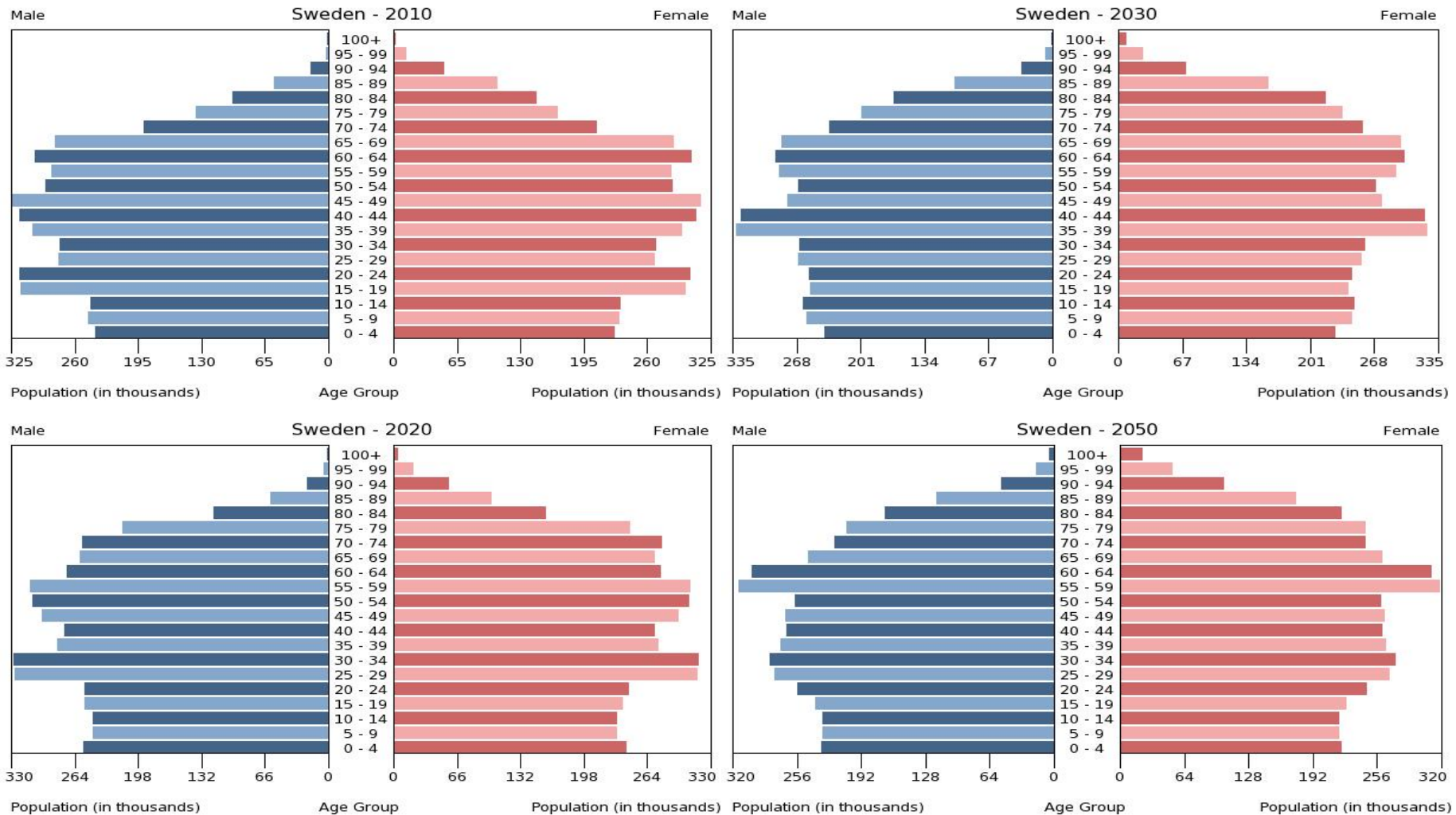**The model of partially funded pension systems**

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The Model Functions

For each t in T, we have that:

$\alpha(t)$ is the contribution rate, with $\alpha(t) \geq 0$

$C(t) \geq 0$ and $W(t)$ are the instantaneous flow of contributions and the instantaneous flow of wages, respectively, with $C(t) \geq 0$, $W(t) > 0$, and

$$C(t) = \alpha(t)W(t)$$

$P(t)$ is the instantaneous flow of the pension expenditure, with $P(t) > 0$

$F(t)$ is the pension system fund

$r(t)$ is the instantaneous rate of return on fund

$L^T(t)$ is the total pension liability, with $L^T(t) > 0$

$r_L(t)$ is the instantaneous rate of return on the total pension liability.

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