Postponing Retirement

Vincenzo Galasso

(IGIER, Università Bocconi and CEPR)

Netspar – Bruegel Conference

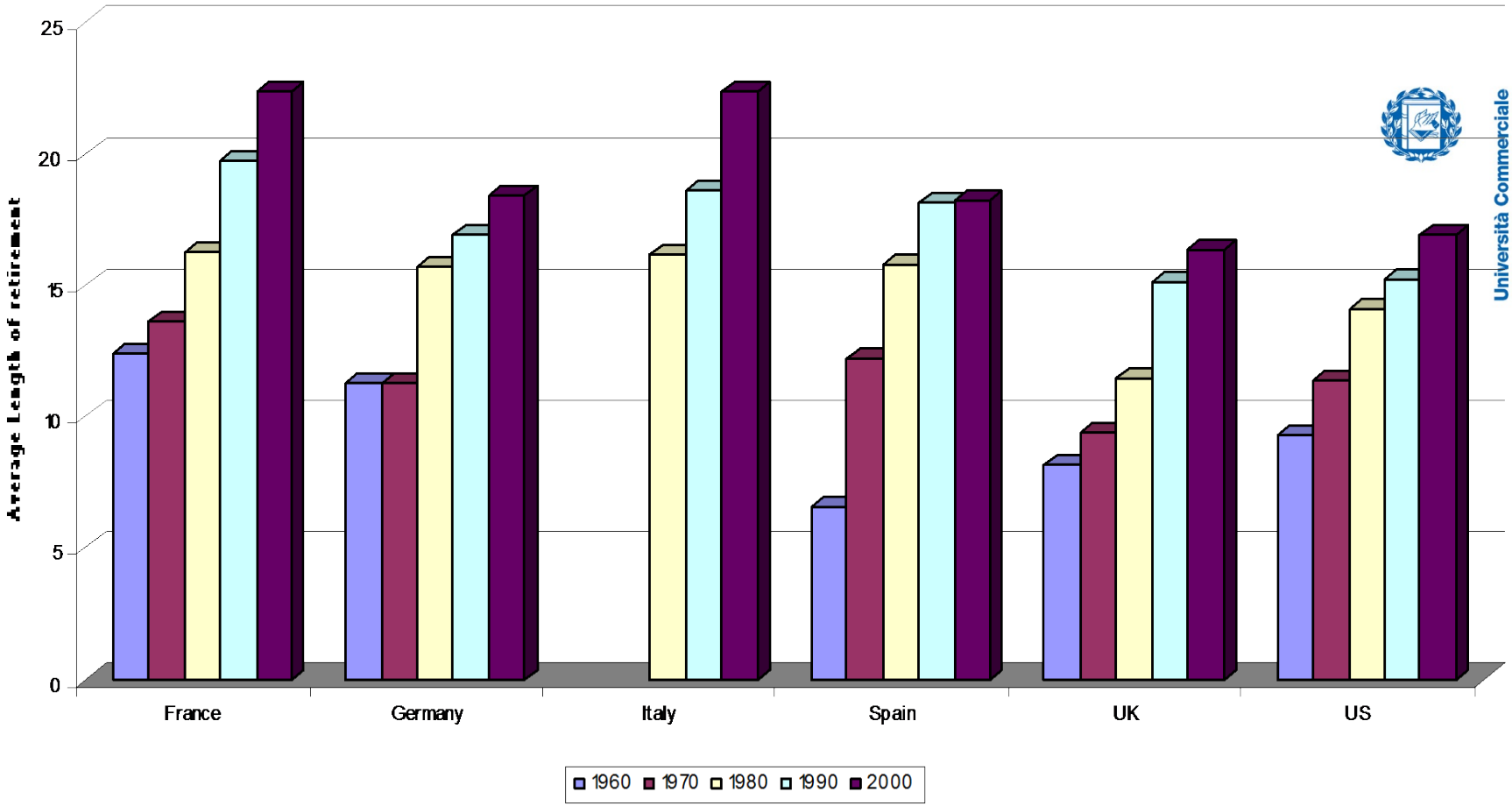
Brussels, December 6th, 2013

Why Should We Postpone Retirement?

- Why is Postponing Retirement such a common Policy advice?

1. We Retire increasingly earlier, although we live longer

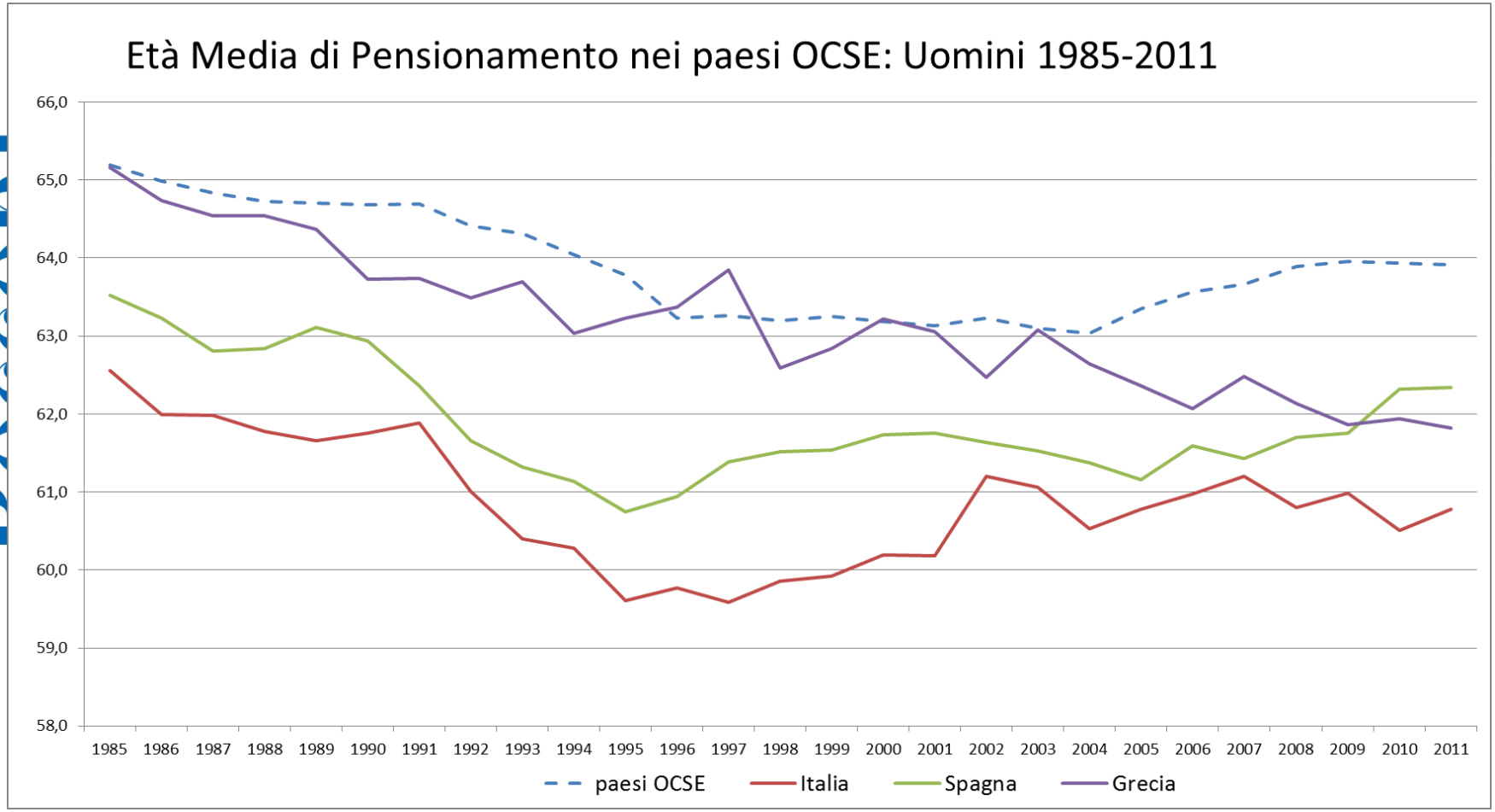
Higher Longevity & Longer Retirement



Bocconi

Università Commerciale Luigi Bocconi

Past & Current Trends in Retirement



Why Should We Postpone Retirement?

- Why is Postponing Retirement such a common Policy advice?

1. We Retire increasingly earlier, although we live longer

2. A Policy Response to Aging & to the Problems of Financial Sustainability of PAYG Pension Systems

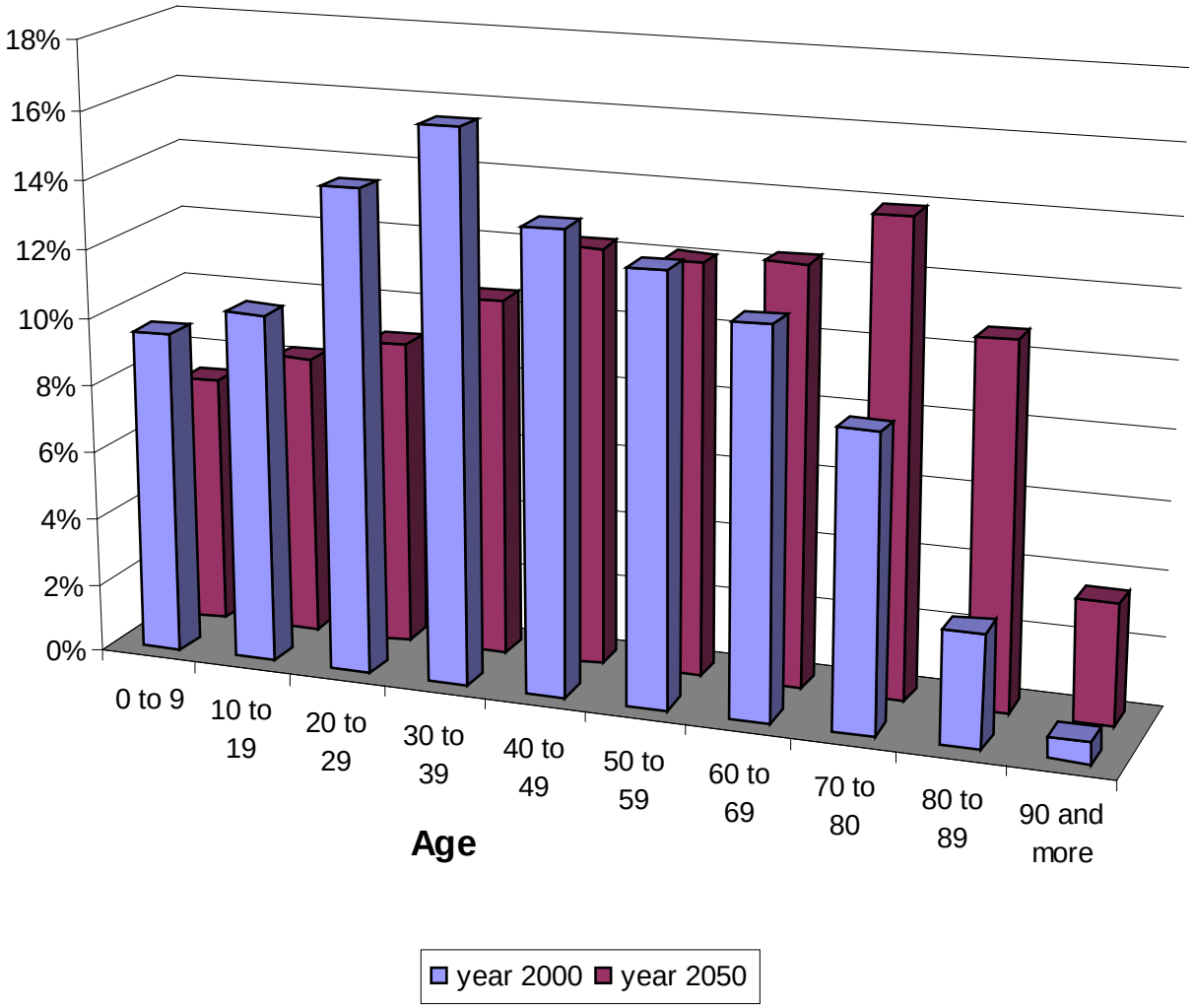
Aging Process

Age-Specific Contributions to the Increase of Record Life Expectancy among Women 1850 to 2009 in %

Age group	1850-1901	1901-1925	1925-1950	1950-1975	1975-1990	1990-2009
0	14	32	15	21	10	4
1-14	55	8	16	12	4	2
15-49	25	38	39	20	7	4
50-64	3	13	19	17	20	11
65-79	2	8	11	24	41	37
80+	0	1	8	6	17	41
Total	100	100	100	100	100	100

Data Source: Calculations based on Human Mortality Database by Roland Rau and James Vaupel (unpublished)

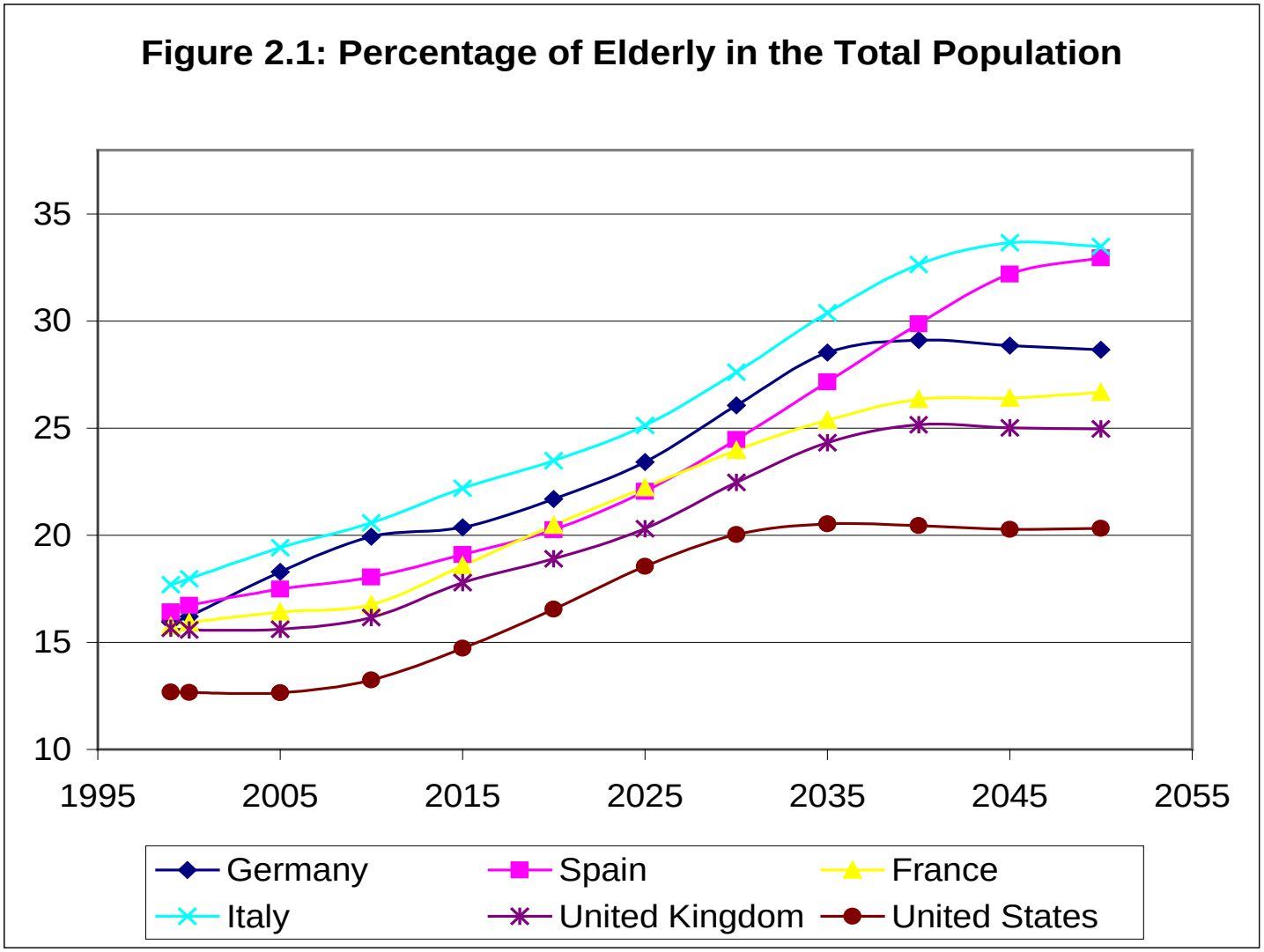
Aging Process in Italy



Bocconi

Università Commerciale Luigi Bocconi

Aging Process

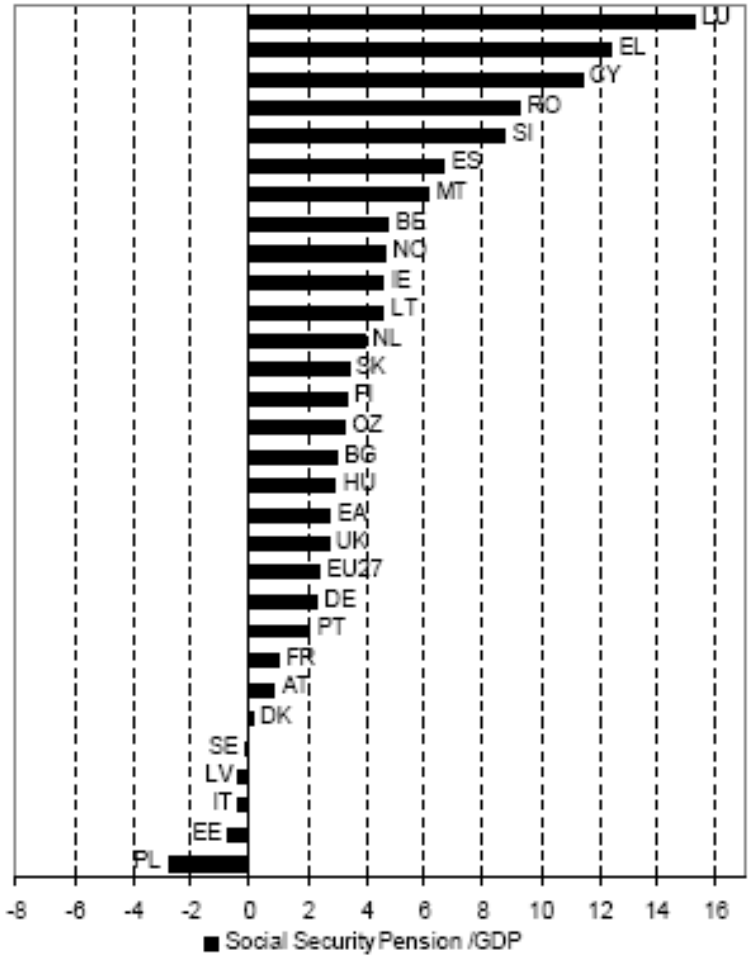


Bocconi

Università Commerciale Luigi Bocconi

Aging & Financial Sustainability

Graph 51 - Change in the Public Pension/GDP over 2007-60 (in percentage points)



Source: Commission services, EPC.

Bocconi

Università Commerciale Luigi Bocconi

Why Should We Postpone Retirement?

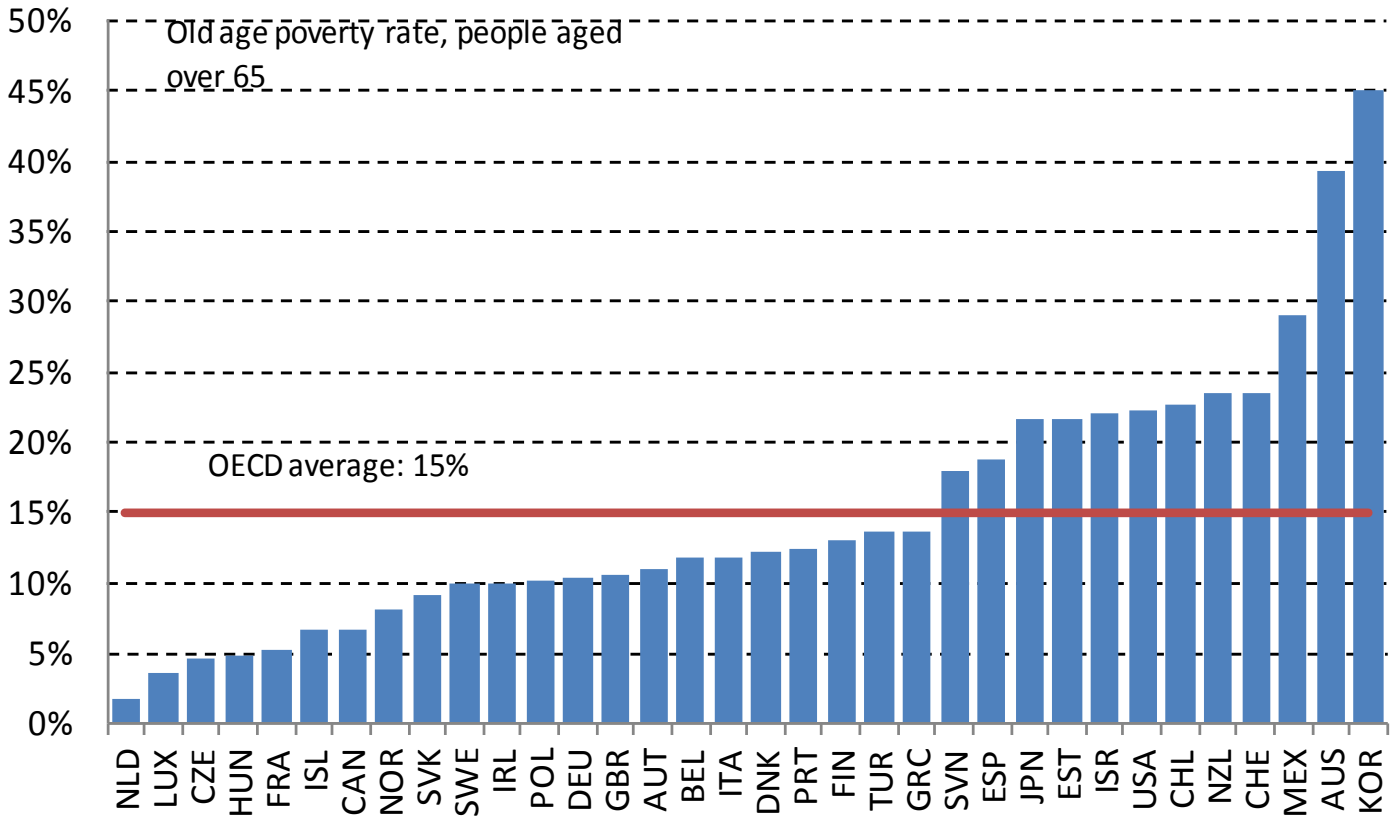
- Why is Postponing Retirement such a common Policy advice?

1. We Retire increasingly earlier, although we live longer

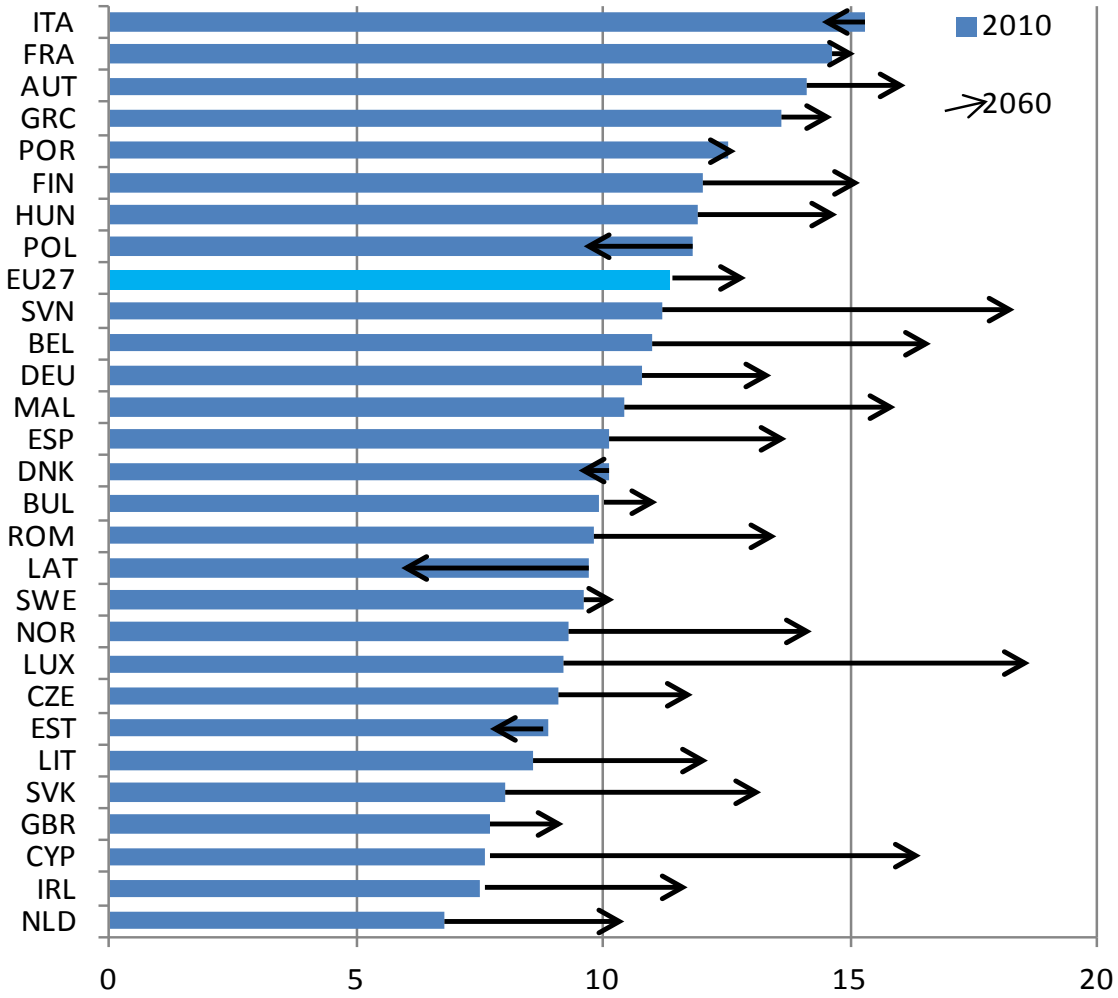
2. A Policy Response to Aging & to the Problems of Financial Sustainability of PAYG Pension Systems

3. A Policy Response to (Current &) Future Pension Adequacy

Current Pension Adequacy



Future Pension Adequacy?

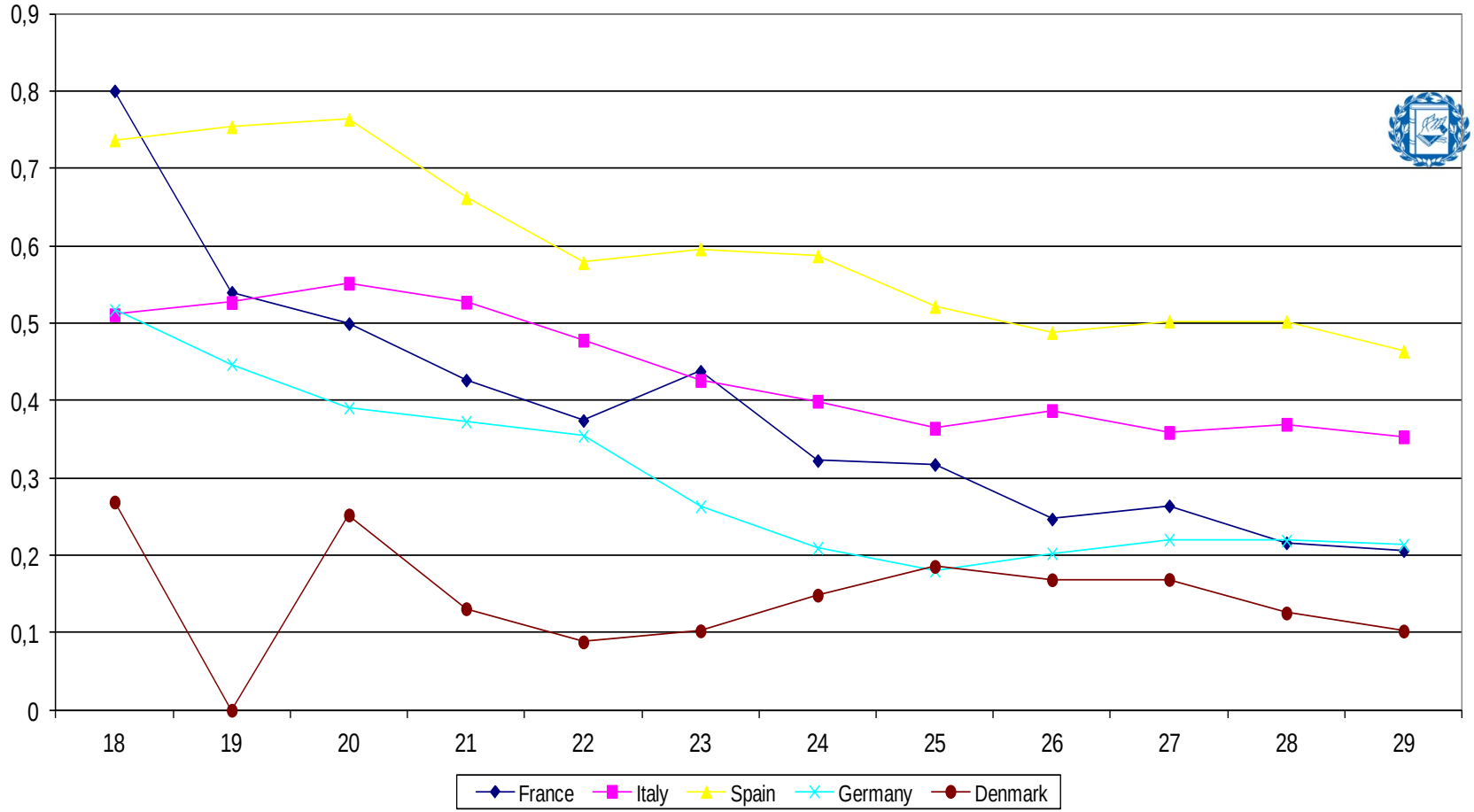


Bocconi

Università Commerciale Luigi Bocconi

Dual Labor Market: Temporary Workers by Age

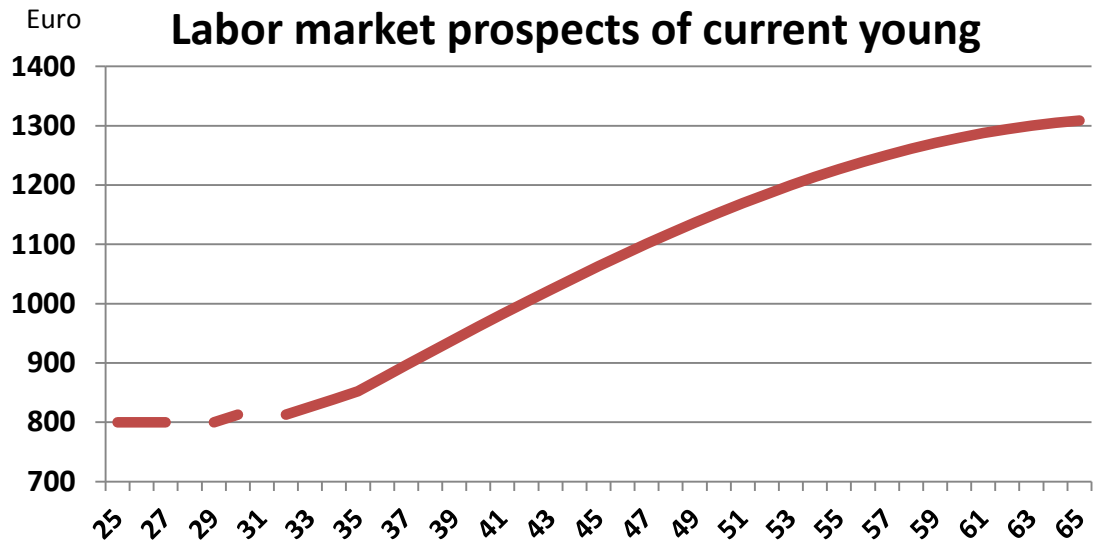
Figure 1: Share of temporary workers by age



Bocconi

Università Commerciale Luigi Bocconi

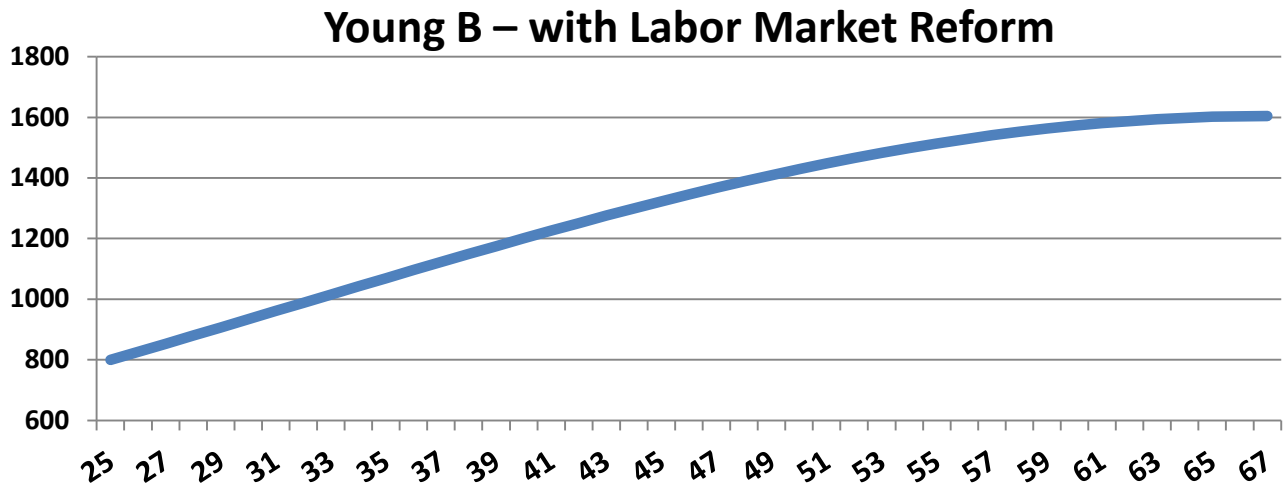
Italy: Future Pensions for Temporary Workers



25-28 y.o.: Temporary Job (Co.co.pro.)
29: Unemployed
29-31: Fixed Term Job
32: Unemployed
33-35: Fixed Term Job
35-65: Permanent Job

Growth Rate (*g*)	Retirement Age	Transformation Coefficients (2009)	Monthly Pension	Replacement Rate
1.5%	67	0.06136	1155	88%
	65	0.06136	1070	82%
	60	0.05163	731	57%
1.2%	67	0.06136	1090	83%
	65	0.06136	1012	77%
	60	0.05163	697	54%
1.0%	67	0.06136	1041	80%
	65	0.06136	976	75%
	60	0.05163	675	53%

Italy: Future Pensions for Temporary Workers



Growth Rate (*g*)	Retirement Age	Transformation Coefficients (2009)	Monthly Pension	Replacement Rate
1.5%	67	0.06136	1497	93%
	65	0.06136	1390	87%
	60	0.05163	957	61%
1.2%	67	0.06136	1409	88%
	65	0.06136	1312	82%
	60	0.05163	910	58%
1.0%	67	0.06136	1353	84%
	65	0.06136	1263	79%
	60	0.05163	881	56%

Italy: Future Pensions for Temporary Workers

Labor Market Impact on Future Pensions

			Young A		Young B		
Growth Rate (*g*)	Retirement Age	Transformation Coefficients (2009)	Monthly Pension	Replacement Rate	Monthly Pension	Replacement Rate	B/A
1.5%	67	0.06136	1155	88%	1497	93%	1.30
	65	0.06136	1070	82%	1390	87%	1.30
	60	0.05163	731	57%	957	61%	1.31
1.2%	67	0.06136	1090	83%	1409	88%	1.29
	65	0.06136	1012	77%	1312	82%	1.30
	60	0.05163	697	54%	910	58%	1.31
1.0%	67	0.06136	1041	80%	1353	84%	1.29
	65	0.06136	976	75%	1263	79%	1.29
	60	0.05163	675	53%	881	56%	1.31

What may Push for Postponing Retirement?

1. Adequacy of Future Pension Benefits – particularly due to current labor market situation

2. Political Push of Aging on Postponing Retirement.

   How to deal with the effect of Aging on Financial Sustainability of Pensions?

Political Economy of Pension Reforms

- Conventional Wisdom: Aging – by changing the ratio between Workers and Retirees – may undermine the financial sustainability of PAYG systems

- Problem: Systems will have to be Reformed. Possible measures – higher contribution rates, lower pension benefits, postponing retirement, partial funding – differ in how the costs of the reform are distributed across generations.

- The political process will have to reconcile the opposite interests of subsequent generations.

Politico-Economic Effects of Aging

Aging induces (at least) two crucial effects:

<u>Economic</u>: An increase in the Dependency Ratio reduces the average long run return of the system
→ Since pensions represent a saving device, Portfolio Rebalancing: agents *reduce* the size of pension system.

<u>Political</u>: Aging Increases the Political Weight of the Elderly
→ Generates "political pressure" to *increase* the generosity of the system

Politico-Economic Effects of Aging

The existing Politico-Economic literature suggests that the

1. Political aspect dominates: Aging induces the contribution rates to increase everywhere although (generosity) replacement rates may decrease.

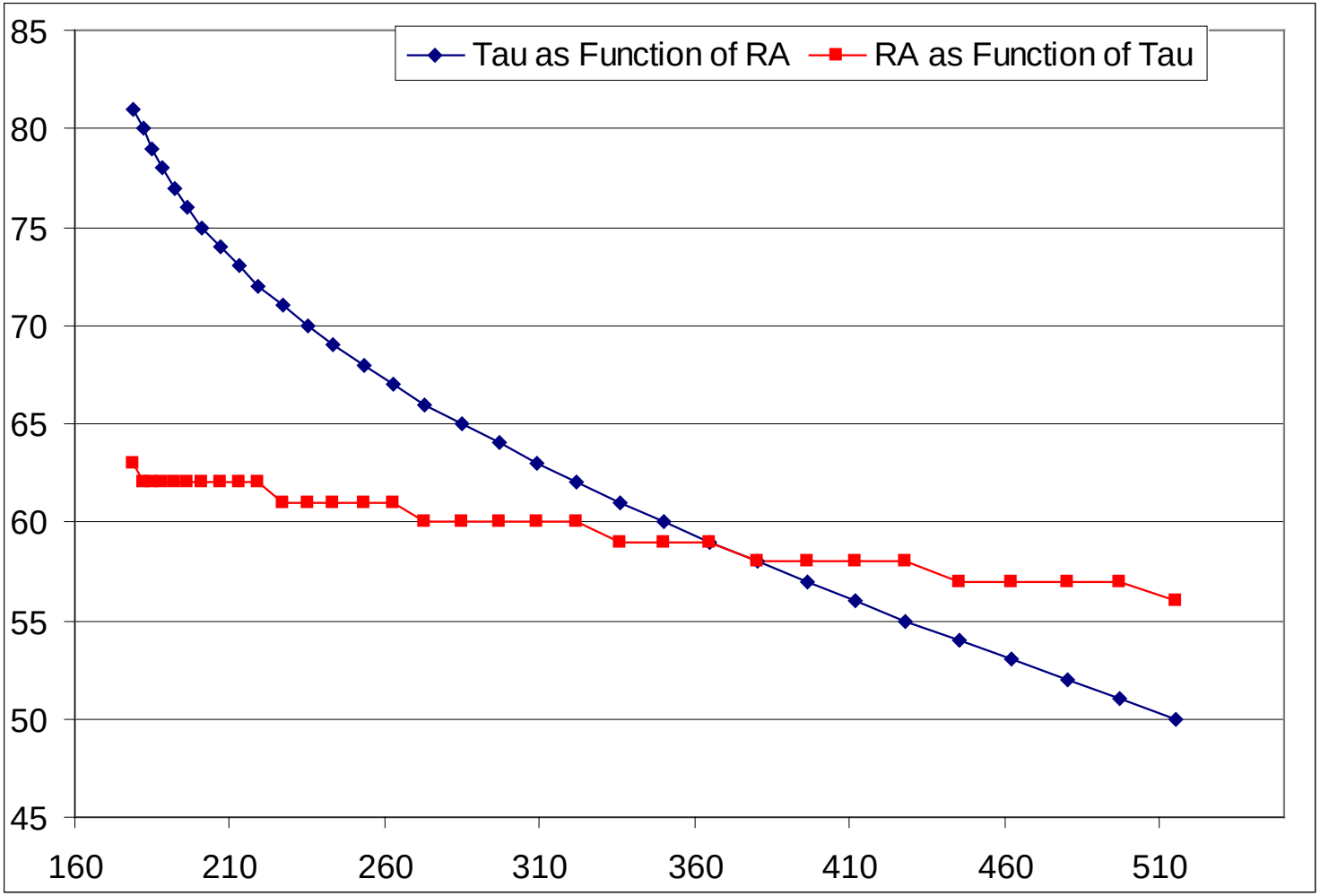
2. Policy Implications: Higher actual retirement ages are very effective in limiting the increase of the size while increasing the generosity of the system

Will voters be willing to support an increase in the effective retirement age?

How do individuals choose (vote)?

- Choosing (voting on) pension contributions for a given retirement age depends on age.
  - Higher Retirement Age Induces Lower Pension Contributions
- Choosing (voting on) retirement age for a given pension contribution rate depends on (i) Individual labor-leisure trade-off via retirement; (ii) Impact of retirement age on pension benefits via dependency ratio.
  - Higher contributions (and pensions) create a substitution (lowering RA) and an income effect (increasing RA)

Issue-by-Issue Bidimensional Voting



Bocconi

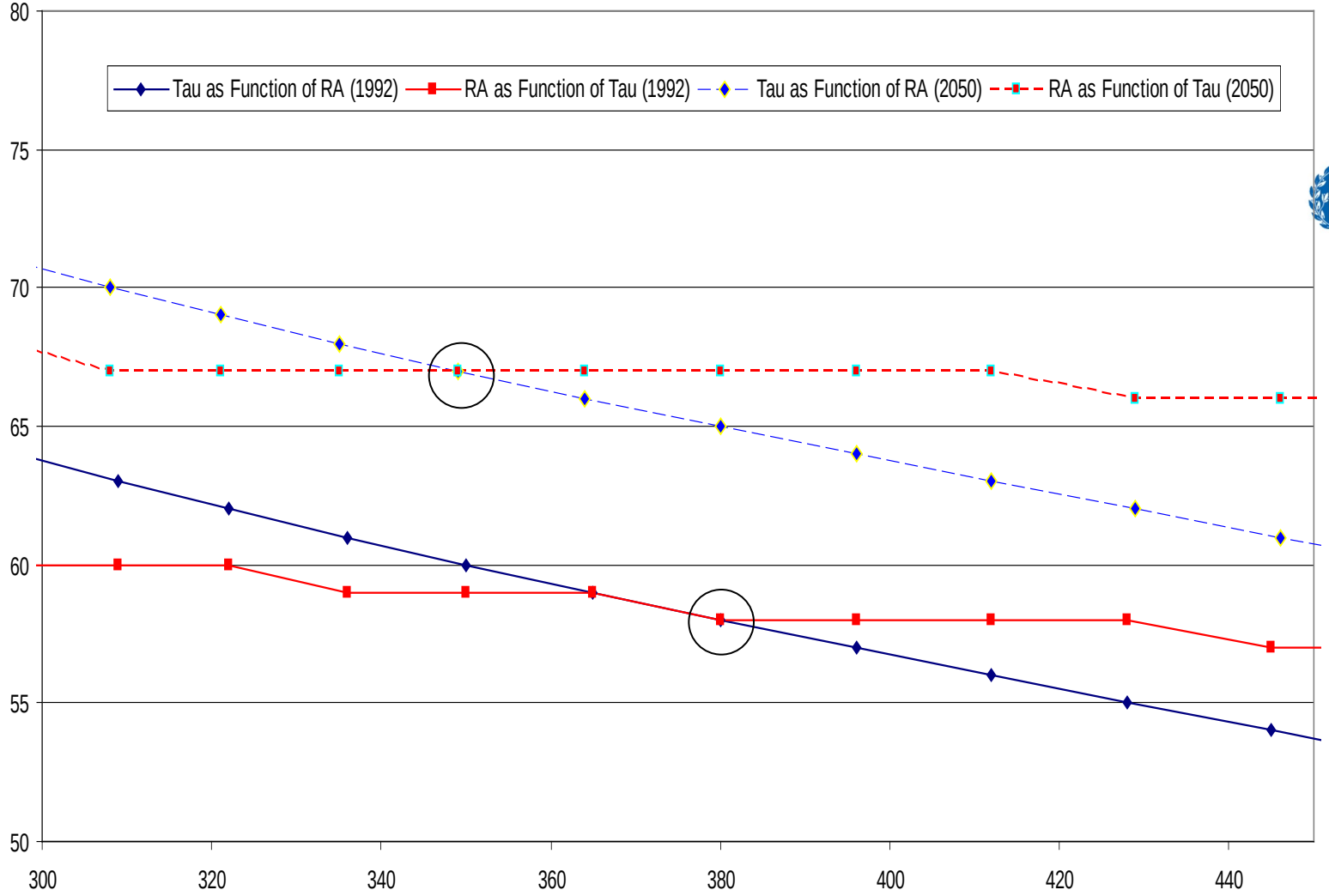
Università Commerciale Luigi Bocconi

How does Aging affect individuals vote?

- Voting on pension contributions, given retirement age:
  - Economic Effect (lower IRR): lower contributions
  - Political Effect (older median voter): higher contributions
  - Overall result is ambiguous

- Voting on retirement age, given pension contribution
  - Negative Income effect: aging reduces returns from social security. Retirement Age increases
  - Negative Substitution effect: for a given contribution rate, aging reduces pension benefit. Retirement Age increases
  - Overall result: <u>Retirement Age increases</u>

Issue-by-Issue Bidimensional Voting



Bocconi

Università Commerciale Luigi Bocconi

Bidimensional Voting Simulation Results

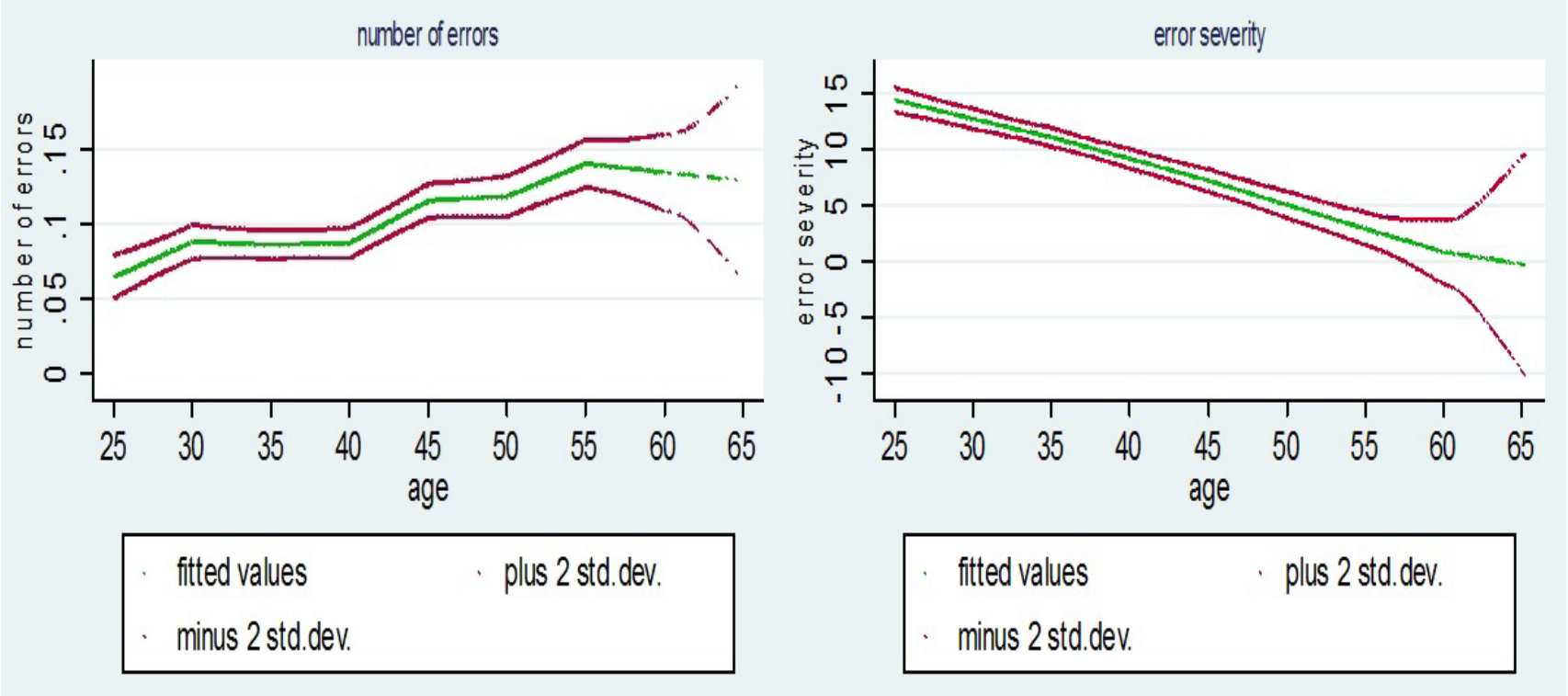
		Age of the median voter over contribution rate	Effective retirement age	Social security contribution rate
Italy	1992	44	58	38.0%
	2050	56	67	34.9%
UK	2000	45	63	14.5%
	2050	53	70	27.1%
US	2000	47	63	9.7%
	2050	53	68	13.5%
	2050	53	69	11.9%

- When voting over RA and SS contribution rates, the political economic equilibrium is associated with lower contribution and higher RA.
- WHY? With aging and large social security systems individuals will be "poorer" and will need to work longer years.

What Could Go Wrong with Postponing Retirement?

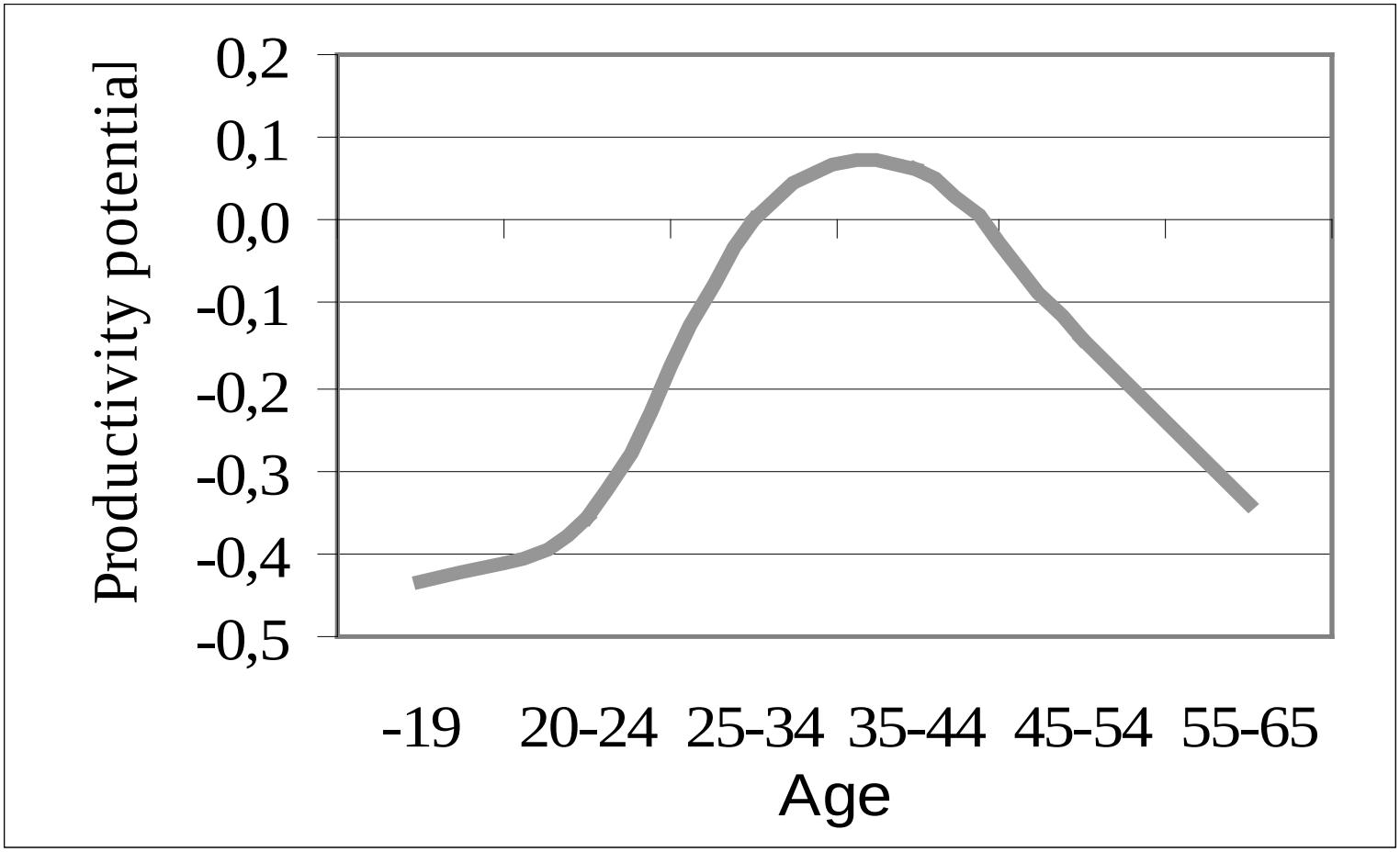
1. Would Keep Elderly Workers in the Labor Force Reduce Economic Productivity?

Aging & Economic Productivity



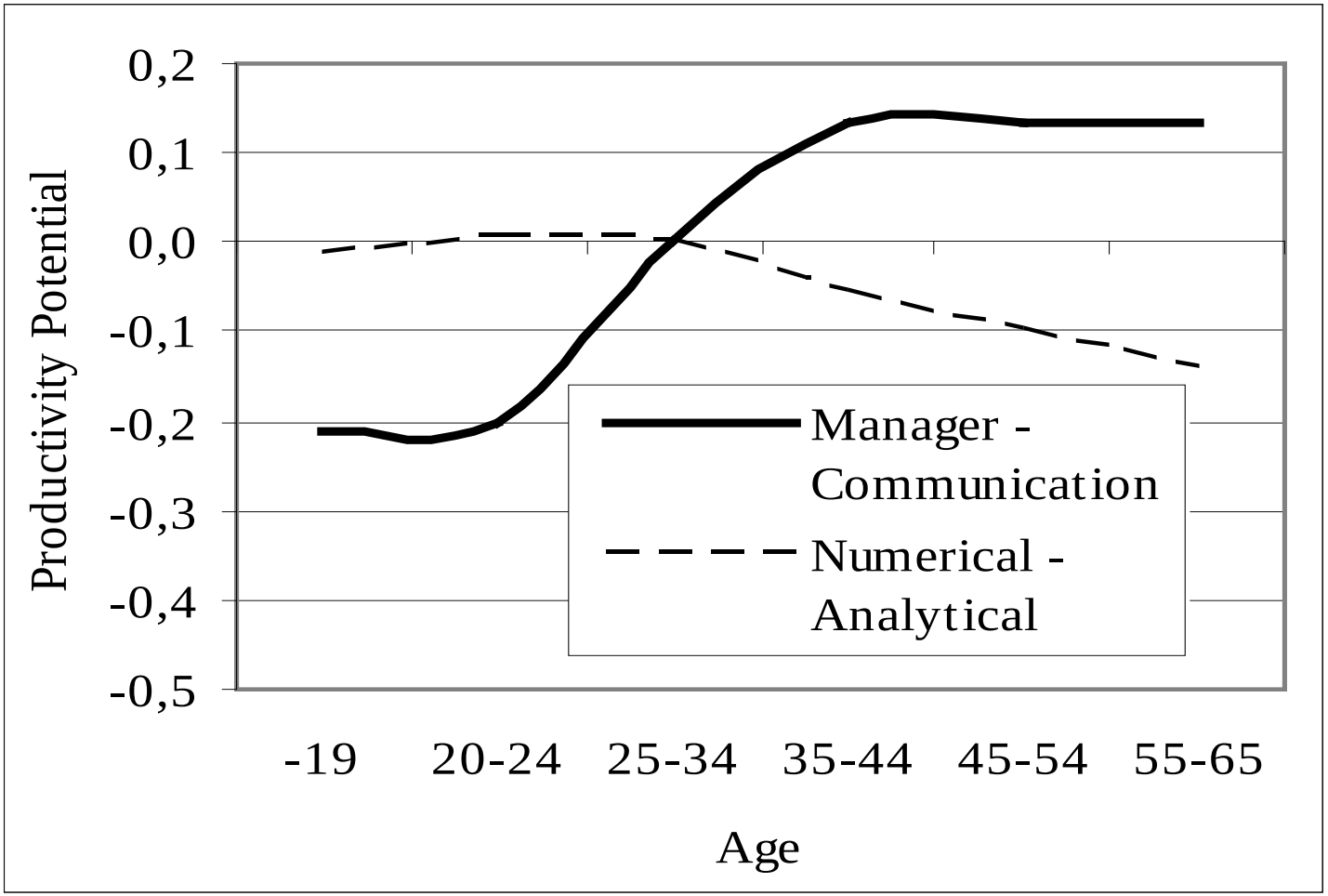
Axel Börsch-Supan and Matthias Weiss, (2011) on productivity by age for team workers in a Mercedes Benz production plan in south Germany.

Aging & Economic Productivity



Source: Ilmakunnas, van Ours, Skirbekk and Weiss, “Ageing and Productivity”, 2010, Oxford University Press

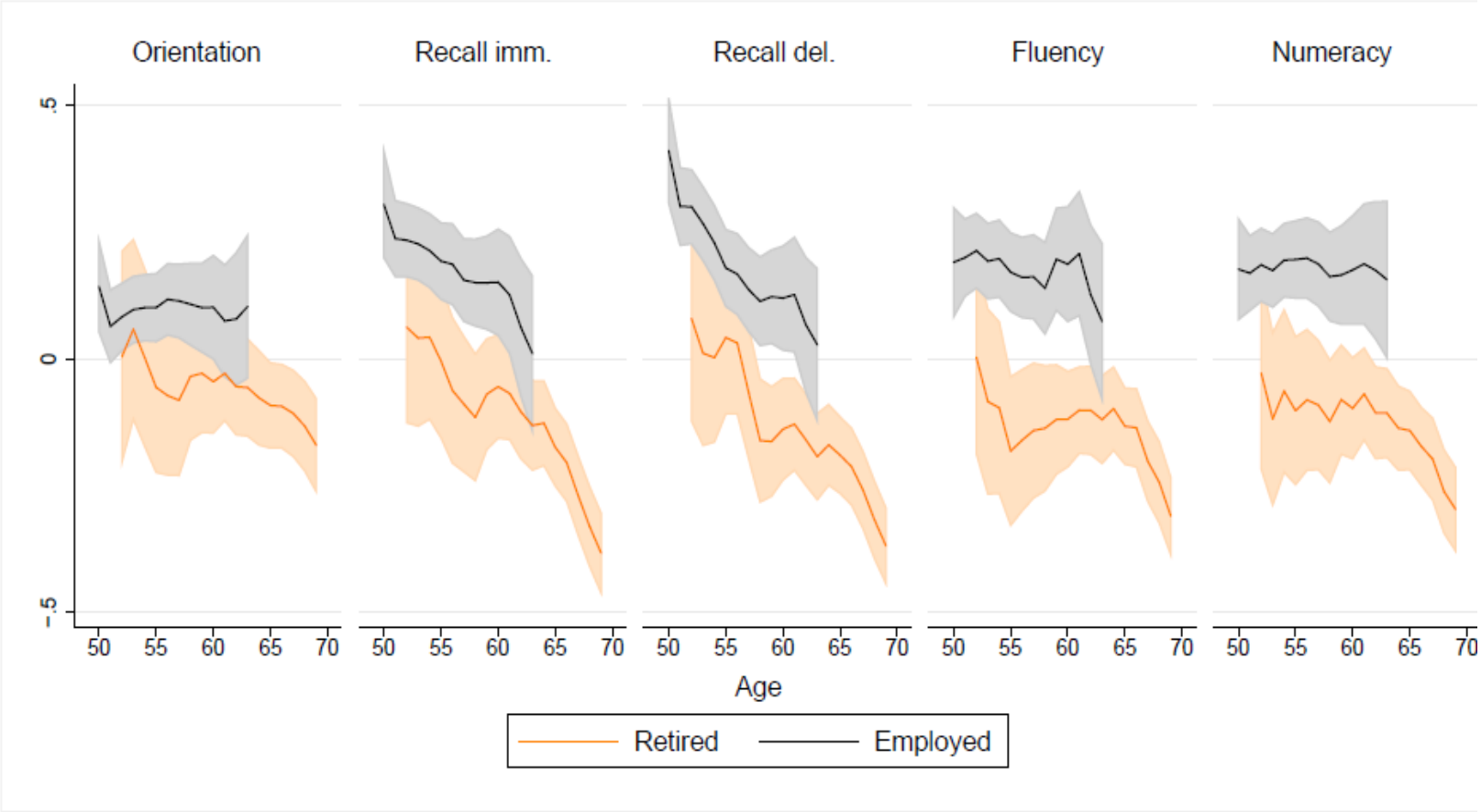
Aging & Economic Productivity



Source: Ilmakunnas, van Ours, Skirbekk and Weiss, “Ageing and Productivity”, 2010, Oxford University Press

Aging & Economic Productivity

Figure 4: Age-profiles of average test scores by employment status.



Source: F. Mazzonna and F. Peracchi, 2012. Dati SHARE.

Should We Postpone Retirement?

Yes, because:

1. Increased (and Increasing) Longevity
2. Later Retirement Mitigates the Financial Sustainability problems of PAYG Pension Systems
3. No Evidence that Elderly Workers have Large Drops in Economic Productivity
4. No Lump of Labor: No Negative effect on the Employment of the Young

Why & when will Retirement be Postponed?

- Why? To Achieve Pension Adequacy
  - Both Individual (Economic) & Aggregate (Political) decisions driven by "Negative Income Effects".
  - Future Elderly "too poor" too retire early

- When? It will depend on
  - Initial retirement conditions
  - How long it will take to reduce pension benefits (reform transition)
  - Current labor market conditions.

Why & when will Retirement be Postponed?

Reference

Boeri T., and V. Galasso (2013) "Is Social Security Secure with NDC?" in R, Holzmann, E. Palmer and D. Robalino (eds.) Nonfinancial Defined Contribution Pension Schemes in a Changing Pension World, 2013, The World Bank

Börsch-Supan, A. and M. Weiss, (2011), "Productivity and age: Evidence from work teams at the assembly line," MEA discussion paper series 07148, Munich Center for the Economics of Aging (MEA).

Conde Ruiz, J.I, V.Galasso, and P. Profeta (2013) "The role of income effects in early retirement", Journal of Public Economic Theory 15(3): 477-505.

Coronado J.L. and M. Perozek, (2003), "Wealth Effects and the Consumption of Leisure: Retirement Decisions during the Stock Market Boom of the 1900s", Board of Governors of the Federam Reserve System, Finance and Economics Discussion Series, 2003-20.

European Union (2013), Combining the entry of young people in the labour market with the retention of older workers

Galasso, V. (2006), *The Political Future of Social Security in Aging Societies*, The MIT Press.

Galasso, V. (2008), Postponing retirement: the political push of aging, Journal of Public Economics, 92, pp. 2157-2169

Ilmakunnas, van Ours, Skirbekk and Weiss, "Ageing and Productivity", 2010, Oxford University Press

Mazzonna, F. and F. Peracchi,(2012) "Ageing, cognitive abilities and retirement," *European Economic Review*, 56(4), 691-710.