

Healthcare Reorganization and the Future of European Growth

*Some lessons from an historical and
institutional analysis*

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*Fourth European Conference on Health Economics,
Organized by Collège des Économistes de la Santé,
Paris, 7-10 July 2002*

INTRODUCTION

Four key issues

- How to interpret the recurring debates about the need for reforms of the Healthcare systems?
- What analytical tools and theoretical models in order to study the impact of health on growth and welfare?
- Is there an optimal organization for healthcare? Would market mechanisms improve the situation?
- What should Europeans do in order to enhance growth by a reform of health and welfare systems?

Some caveats and precautions

- **The vision of a « generalist » and not at all a specialist of healthcare.**
- **Analyses at the macro economic level**
- **An institutionnalist and historical approach**
- **Extended to a comparison between developed countries**

Why so many discussions about
the reforms of the healthcare
systems?

- **A renewed interest of international organizations about the role of health (and education) in the process of development**

✓ *The World Bank annual report 1993
“Investing in Health”.*

✓ *The building of human development
indexes that give a strong emphasis upon
health indicators.*

✓ *The recognition of poverty traps due to the complementarity of health and education within and endogenous growth model*

⇒ Geoffard, Verdier [2000]

✓ *The Jeffrey Sachs report on “Macroeconomics and Health”, World Health Organization 2001*

⇒ The underdevelopment as a consequence of bad health

Table 1 - An association of low income with poor health

Table 1. LIFE EXPECTANCY AND MORTALITY RATES, BY COUNTRY DEVELOPMENT CATEGORY, (1995-2000)

Development Category	Population (1999 millions)	Annual Average Income (US dollars)	Life Expectancy at Birth (years)	Infant Mortality (deaths before age 1 per 1,000 live births)	Under Five Mortality (deaths before age 5 per 1,000 live births)
Least-Developed Countries	643	296	51	100	159
Other Low-Income Countries	1,777	538	59	80	120
Lower-Middle-Income Countries	2,094	1,200	70	35	39
Upper-Middle-Income Countries	573	4,900	71	26	35
High-Income Countries	891	25,730	78	6	6
Memo: sub-Saharan Africa	642	500	51	92	151

Source: Human Development Report 2001, Table 8, and CMH calculations using World Development Indicators of the World Bank, 2001.

⇒ At each level of per capita income, a better health is associated with a faster growth

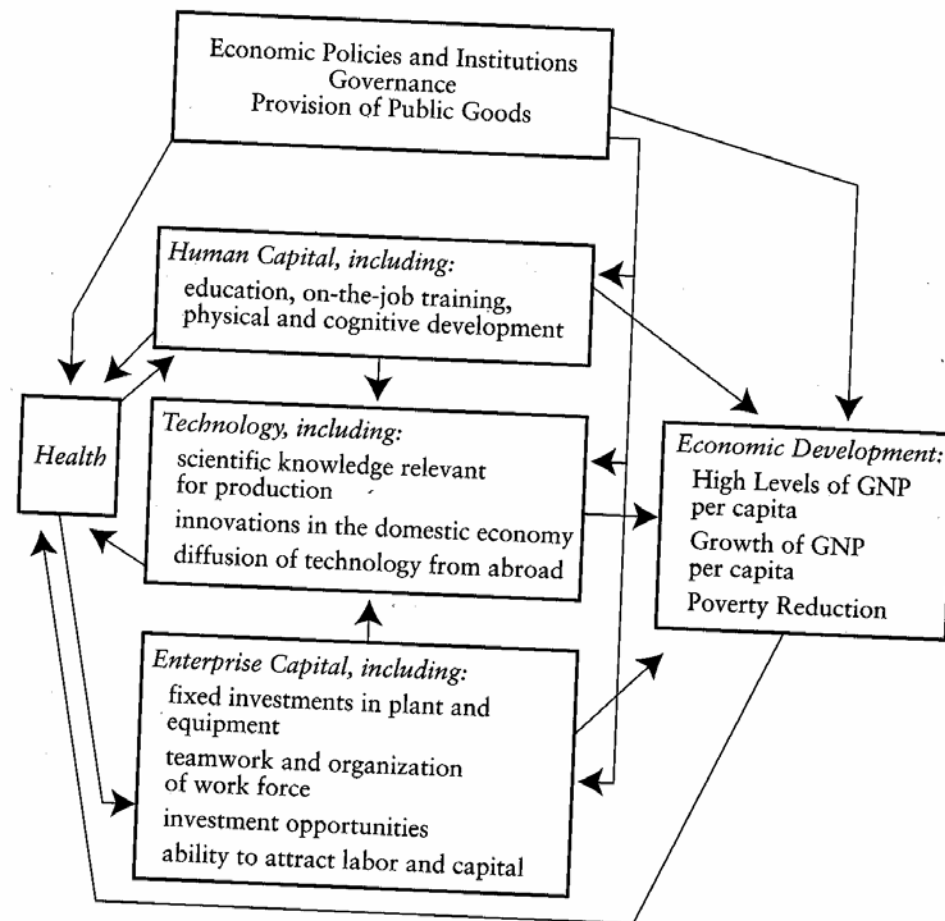
**Table 2 – Growth rate of per capita income,
1965-1994**
*according to income and infant mortality rate,
1965*

Initial Infant Mortality Rate, 1965	IMR ≤ 50	50 < IMR ≤ 100	100 < IMR ≤ 150	IMR > 150
Initial Income, 1965 (PPP-adjusted 1990 US dollars)				
GDP ≤ \$750	—	3.7	1.0	0.1
\$750 < GDP ≤ \$1,500	—	3.4	1.1	-0.7
\$1,500 < GDP ≤ \$3,000	5.9	1.8	1.1	2.5
\$3,000 < GDP ≤ \$6,000	2.8	1.7	0.3	—
GDP > \$6,000	1.9	-0.5	—	—

Note: The reported growth rate is the simple average of the GDP growth rates of all countries in the specific cell.

⇒ A caveat : health is both a cause and a consequence of development and may be complementary to education, innovation

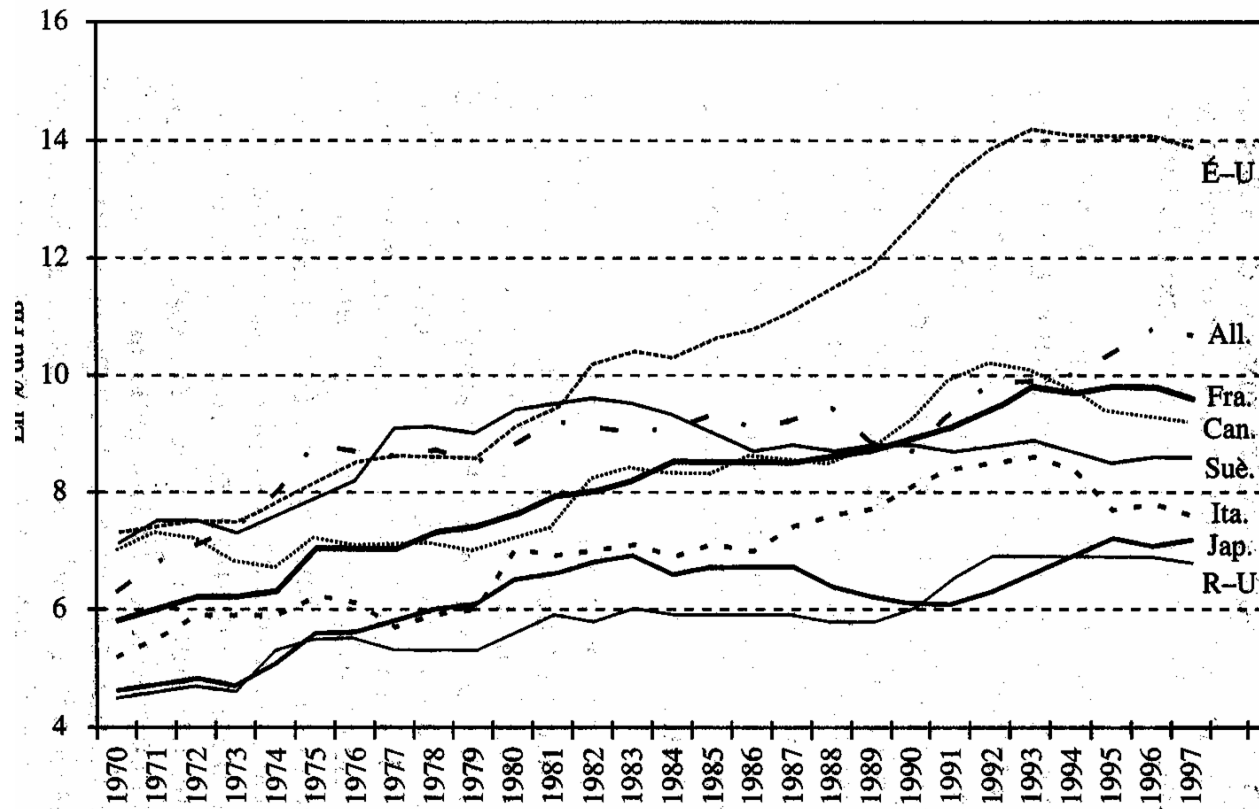
Figure 1 – Health is both an input and output of economic development



- A second reason : rising dissatisfaction with existing health care systems for rich countries

✓ *The increasing medical costs generate recurring financial disequilibria in welfare systems.*

Figure 2 – The increasing share of health expenditures / GDP

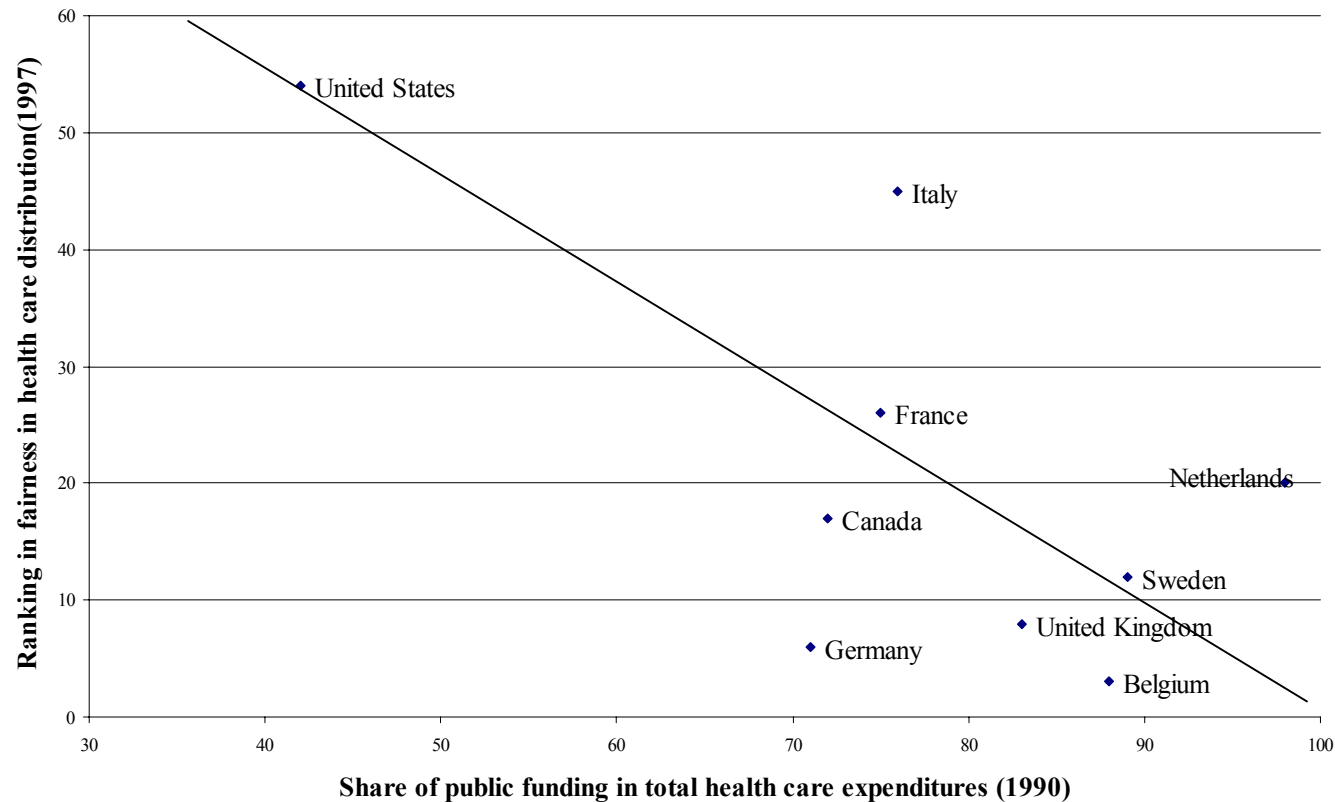


Source : OCDE-CREDES (1999)

- ✓ *When healthcare spending is limited by institutional design, a growing dissatisfaction about quality and flexibility (the British case)*
- ✓ *The explosion of healthcare expenditures might be associated with wide inequality in terms of health (the American configuration)*

Figure 3 - The relationship between public financing and ranking of fairness in health care distribution

(9 Countries)



Source : Computed from Henriët D., Rochet J.-Ch. (1999: 117,119) and World Health Organization (2000: 152-155)

✓ *Each health system is facing difficult trade offs*

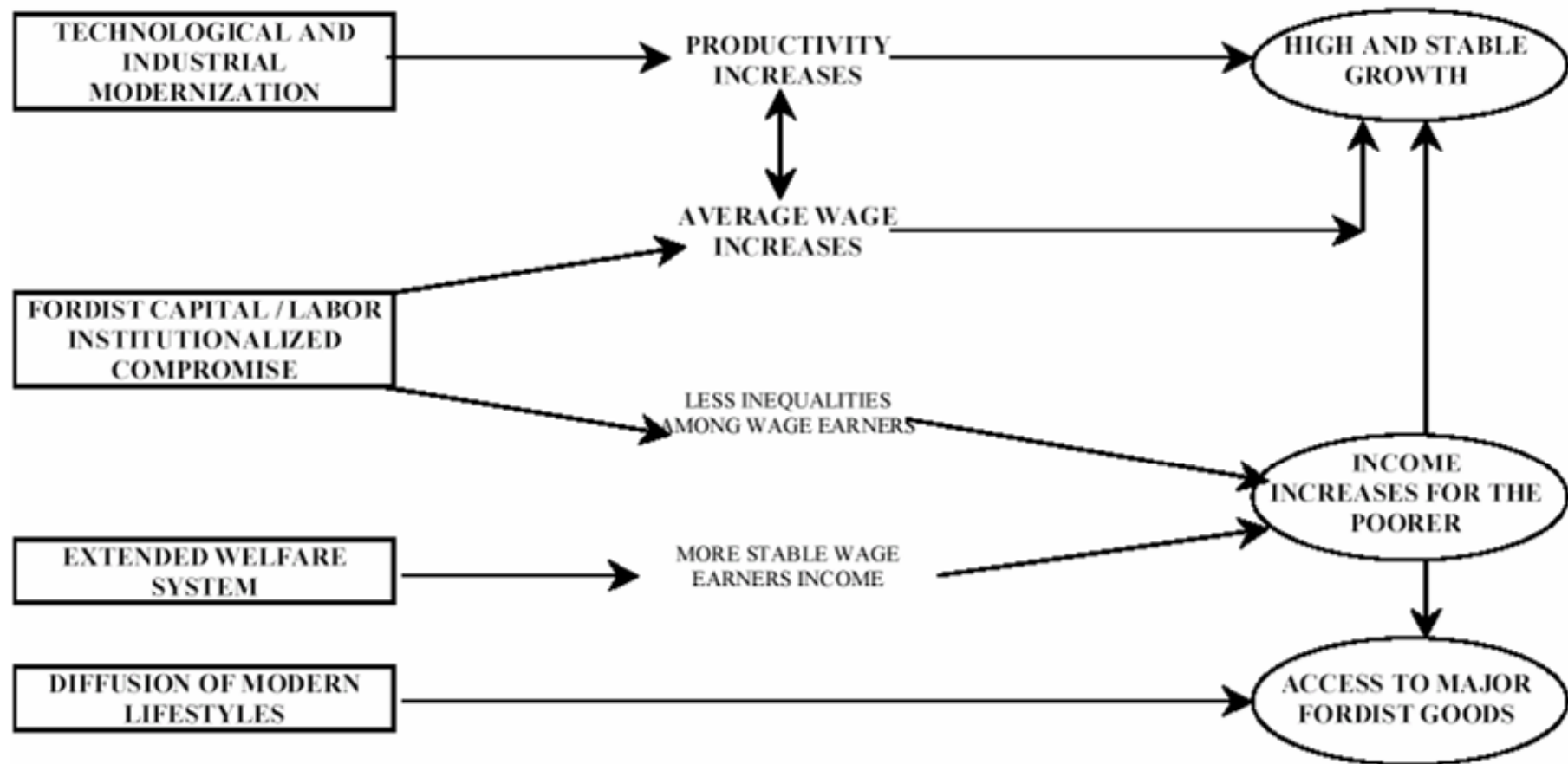
- What criteria for assessing the reform of healthcare :
 - ✓ *Not only a matter of short run mismatch but the issue concerns long term evolutions*
 - ✓ *At least two criteria: efficiency and equity.*
 - ✓ *Static efficiency is not sufficient, dynamic efficiency and the impact on growth have to be assessed*

The demise of the post-war
growth regime calls for
novel approaches of health
and macroeconomics

- **Reinterpreting the golden age of Fordism :**

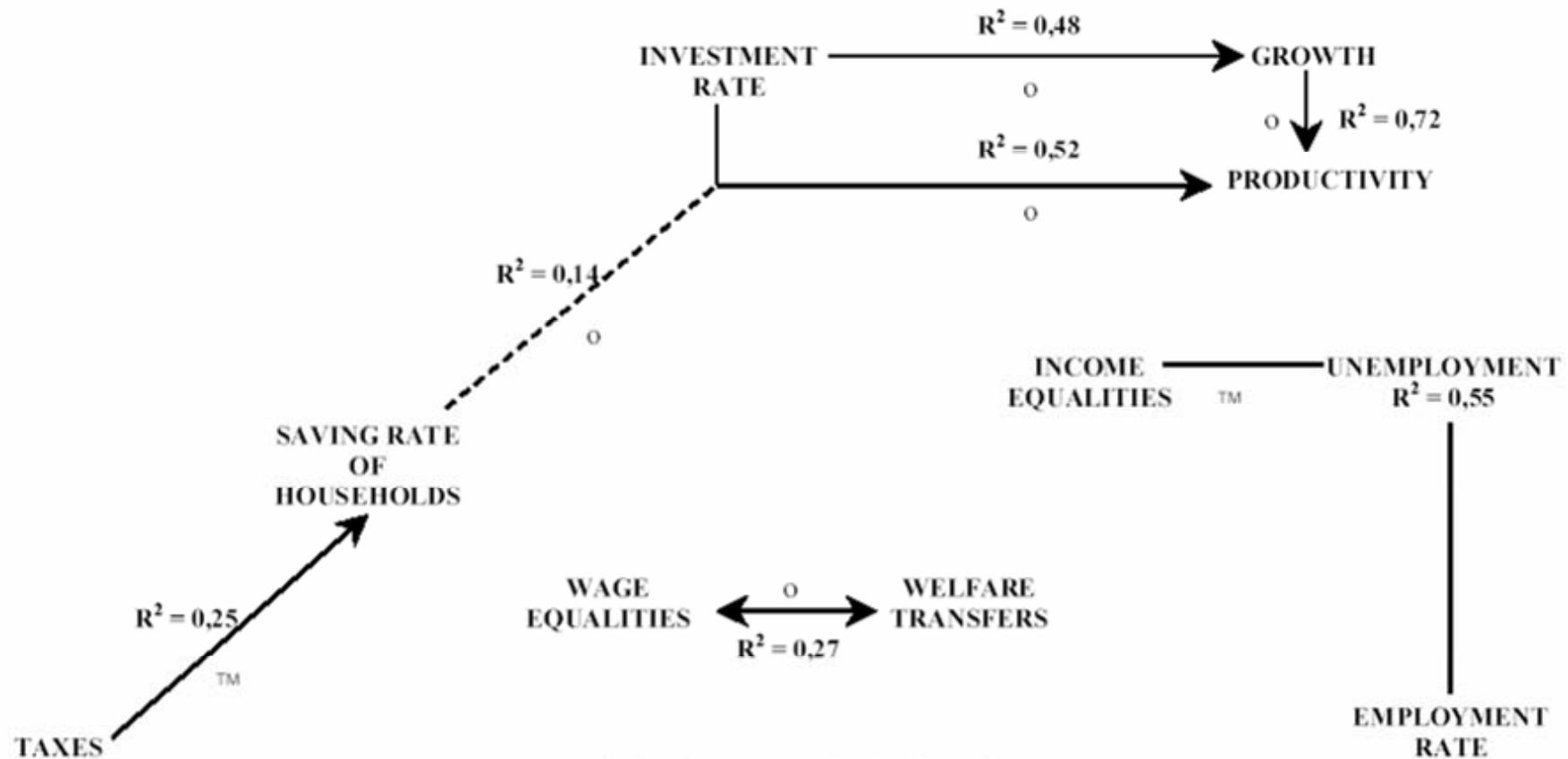
- ✓ *The engine of growth was the interaction between technological innovation and a specific wage labor nexus*
- ✓ *The dynamism of productivity increases allowed generous welfare entitlements and benefits, including for healthcare.*

Figure 4 – The welfare system and the emergence of the Fordist growth regime in France



✓ *Thus, the share of welfare transfers has not any negative impact upon growth.*

Figure 5 – before 1973: The transfers associated to welfare do not hinder national growth



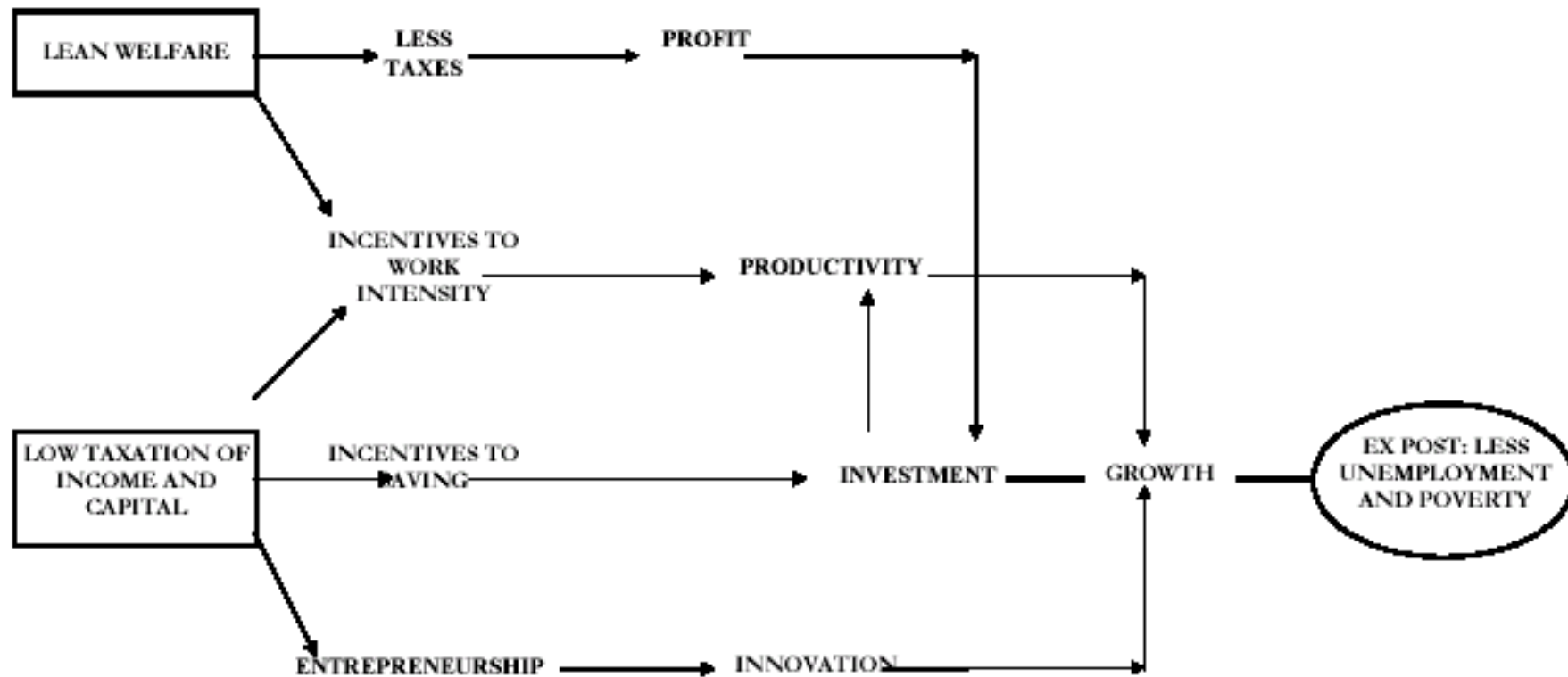
Period : 1968-1973 – 17 OECD Countries

Source : Boyer R. (1991) Justice Sociale et performance économique, *Couverture Orange CEPREMAP*, n° 9135.

- Have healthcare costs and more generally welfare expenditures become an hindrance of growth in the era of ICT and globalization?

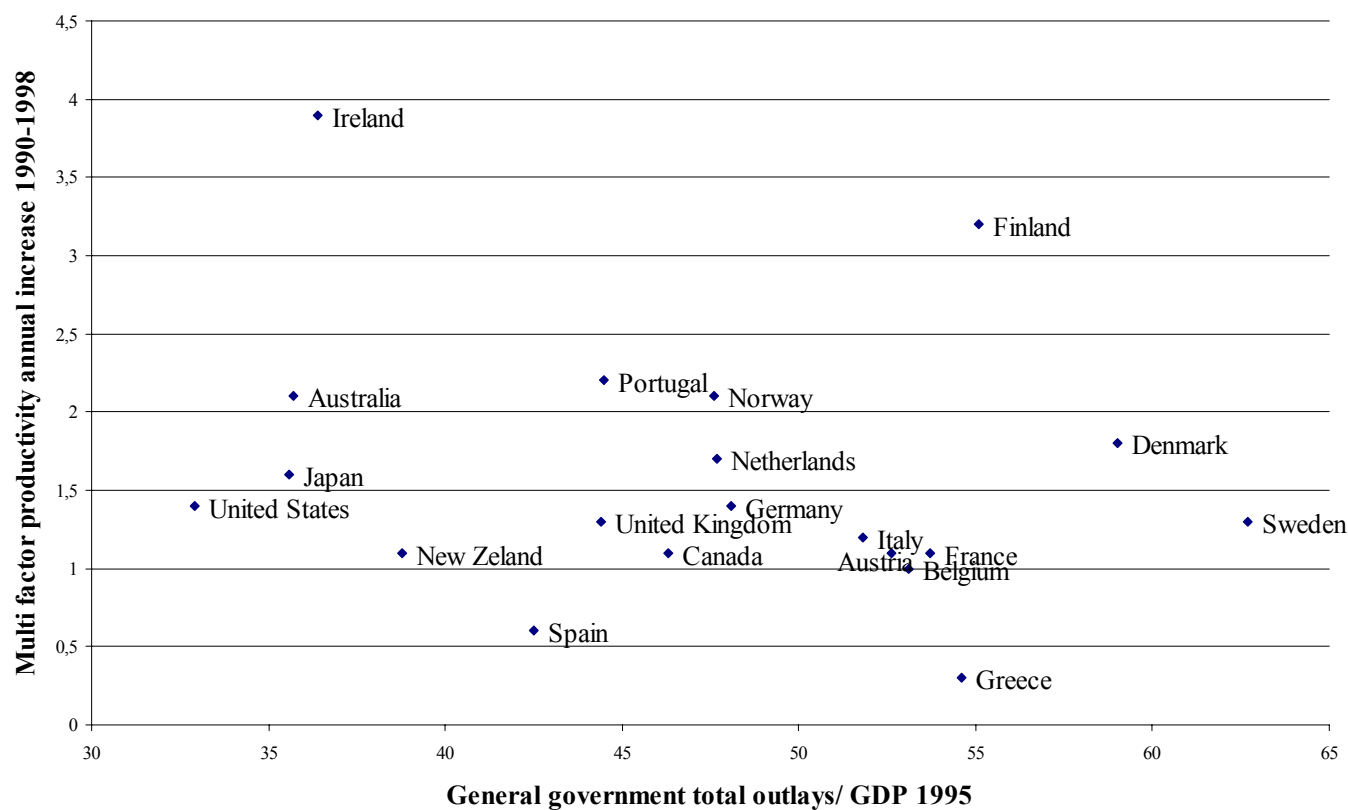
✓ *The contemporary conventional wisdom : taxes and welfare contribution are adversary to innovation flexibility and growth.*

Figure 6 – Lean welfare and low taxes as requisite for growth, employment creation and fight against poverty : the contemporary shift



✓ *The empirical evidence is not so overwhelming : within a cross section, no clear negative correlation between total factor productivity and general government spending*

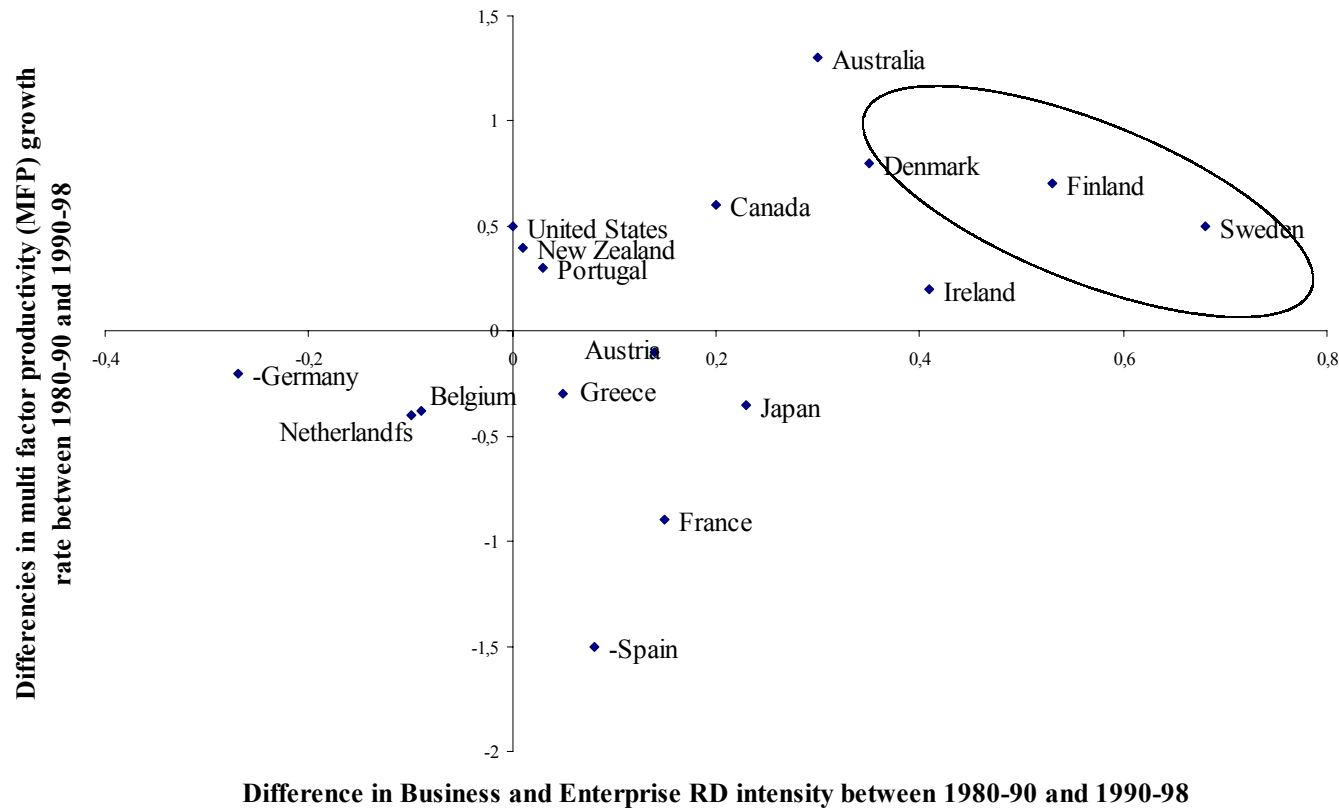
Figure 7 - The relationship between total public transfers (1995) and multi factor productivity increases (1990-1998)



Source: Computed from OECD *Economic outlook*, December 1999, Statistical Appendix

✓ *Even in the era of ICT, an extended welfare state is not necessary an obstacle to the adoption of the new productive paradigm*

Figure 8 – Changes in MFP growth and change in business R&D intensity



Source: Bassanini A., Scarpetta S., Visco I. (2000: 27)

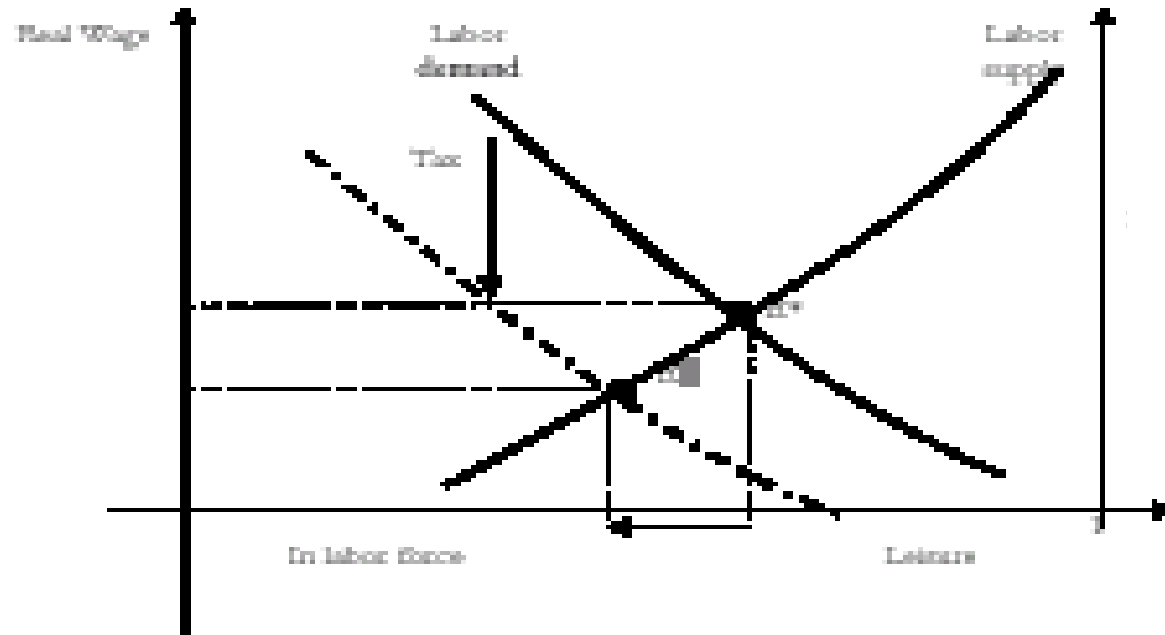
✓ *The organization of welfare systems
matter : Denmark, Finland, Sweden*

- A new vision of the welfare systems :
they provide growth opportunities as
well as they need the financing of the
costs.

✓ *A first move : from higher labor costs
detrimental to labor demand ...*

Figure 9A – The financing of healthcare by a tax on wage reduces employment and real wage ...

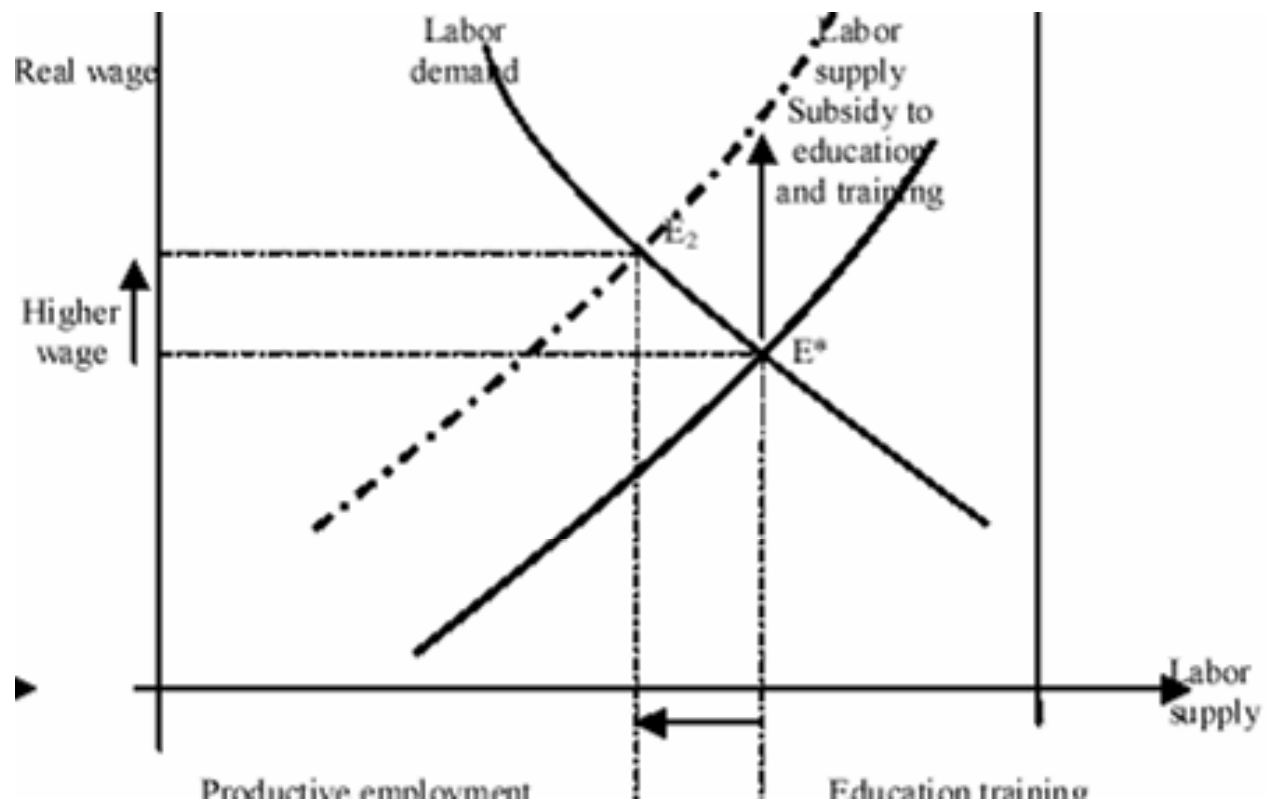
A DISTURBANCE INTO PERFECT COMPETITIVE EQUILIBRIUM



Accordingly to the first welfare theorem financing by a tax on firms reduces both real wage and employment...

✓ *...To a better quality of employment that induces a higher wage and productivity*

Figure 9B – A more healthy (and educated) labor force gets a higher real wage and productivity...



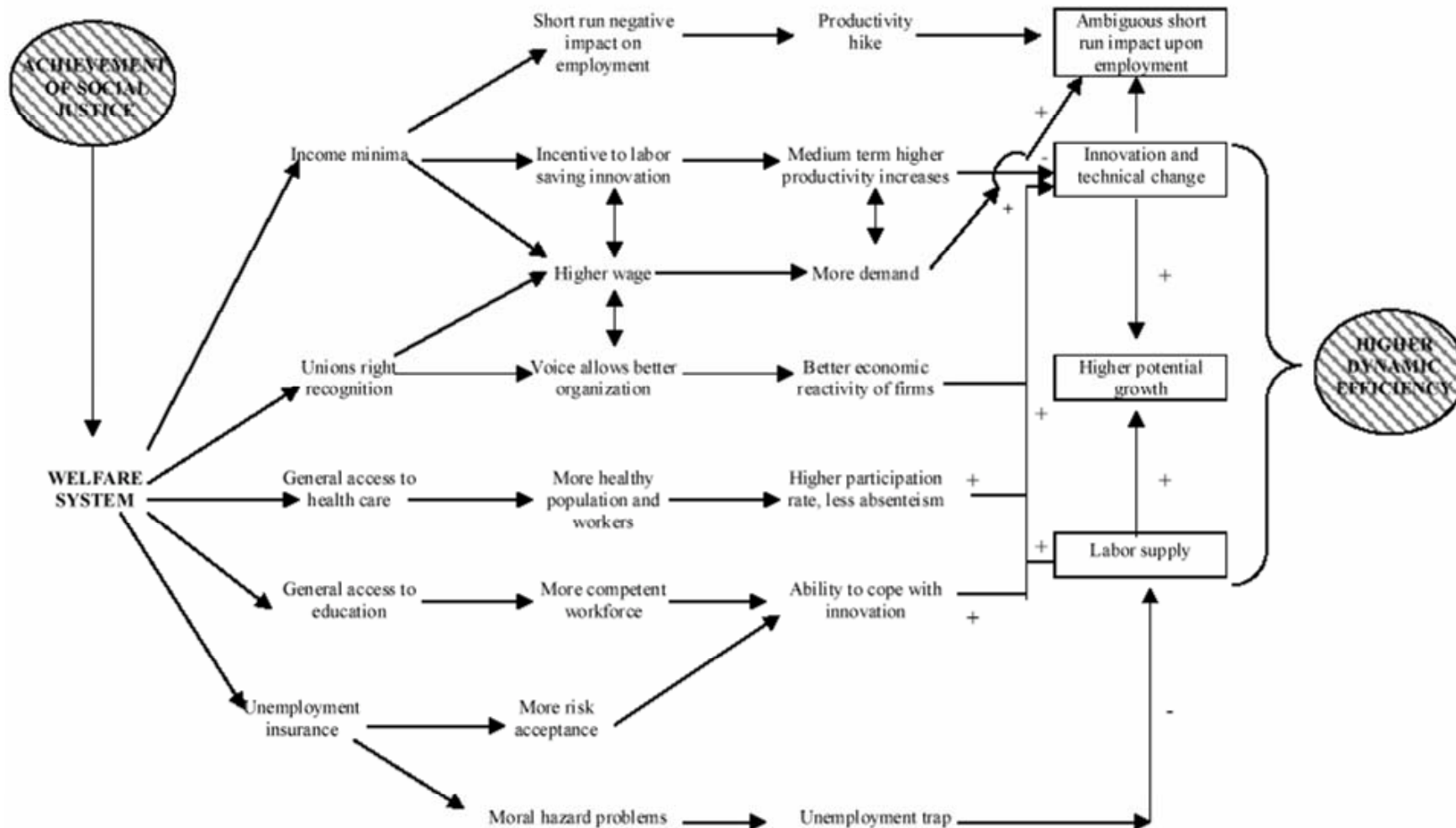
✓ *In the long run, this better quality of human capital may trigger more innovation and total factor productivity:*

⇒ A brand of endogenous growth theory: from Lucas 1988's model to Piatecki and Ulmann (1995) – Van Zon and Muysken (1997) – Geoffard and Verdier (2000)

⇒ An historical example: the complete transformation of the Swedish model (1932-1989)

- **The healthcare system as a component of global welfare systems including education and training**
 - ✓ *Possible complementarities between health and education*
 - ✓ *Difficult to diagnose and test empirically...*
 - ✓ *...But reinforcing the likelihood of an endogenous growth model*

Figure 10 – How health and education expenditure may enhance dynamic efficiency

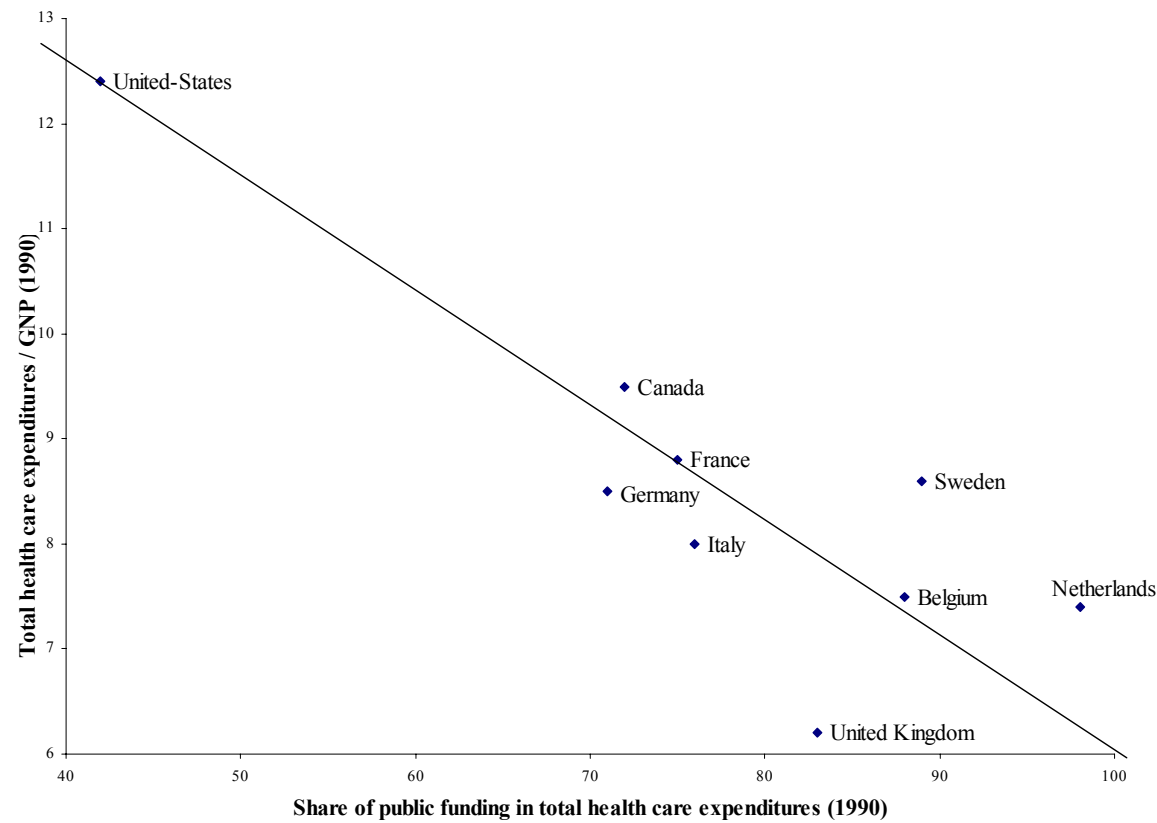


The difficult search for an efficient organization of the healthcare system

- The contemporary wisdom has to be revisited:
 - ✓ *The firm is the key actor of modern economies...
...thus the cost burden of welfare should be removed and borne only by individuals*
 - ✓ *Explicit or quasi market mechanisms are required in order to curb down the cost of healthcare*

- **The teaching of some international comparisons: public funding is not that bad!**
- ✓ *National healthcare systems better than market led configurations in curbing down the costs?*

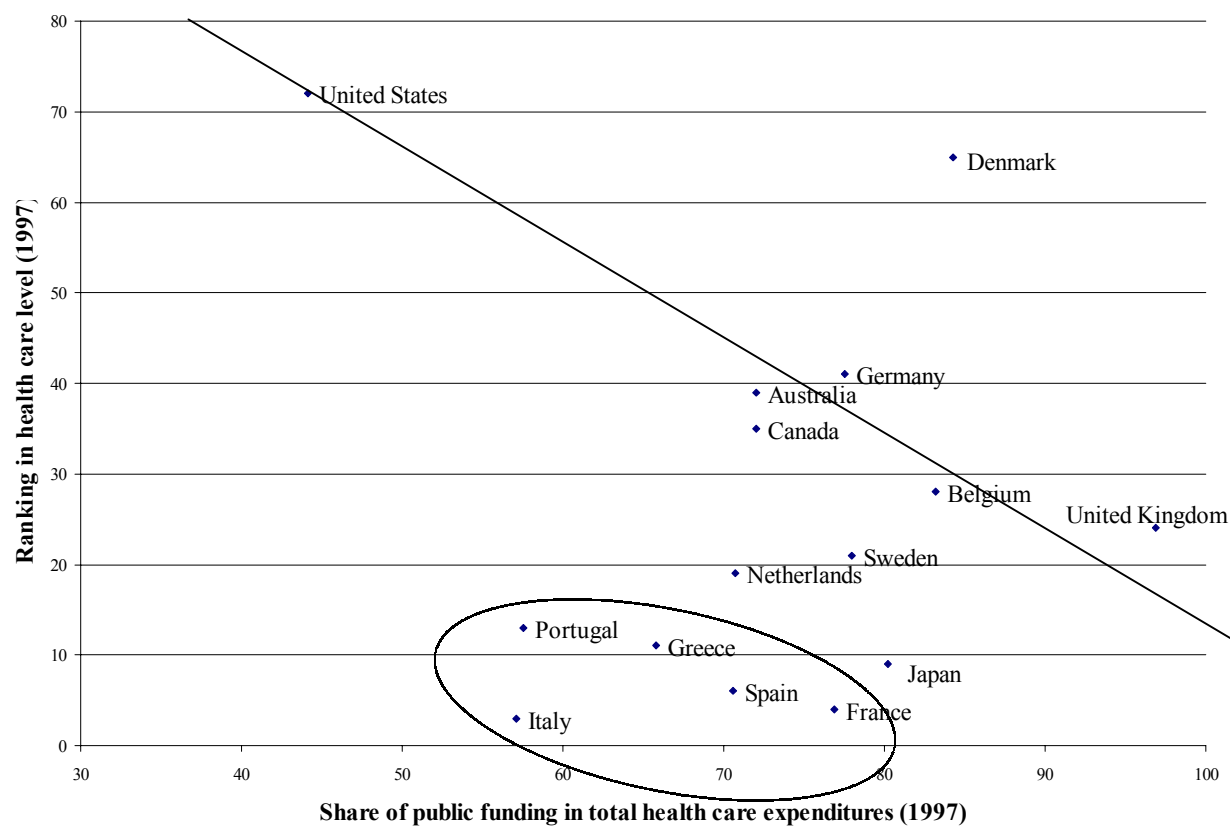
Figure 11 – Public financing and share of health expenditures / GNP



Source : CREDES. Extracted from Henriët D., Rochet J.-Ch. (1999 :117)

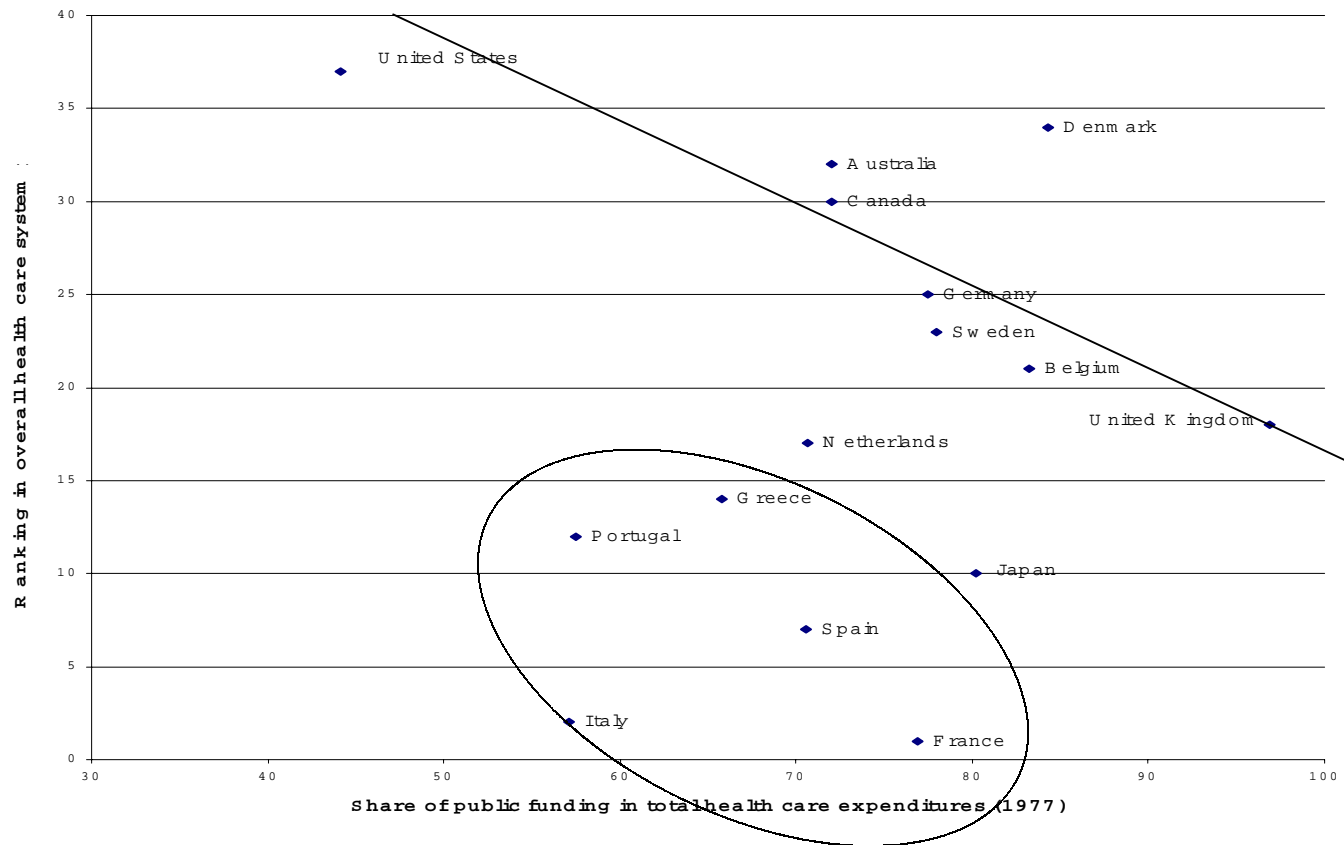
✓ *The importance of public financing is not detrimental to the average health level.*

Figure 12 – The relationship between public financing and health level ranking (15 countries)



✓ *The overall performance of healthcare systems is not related to the importance of private funding*

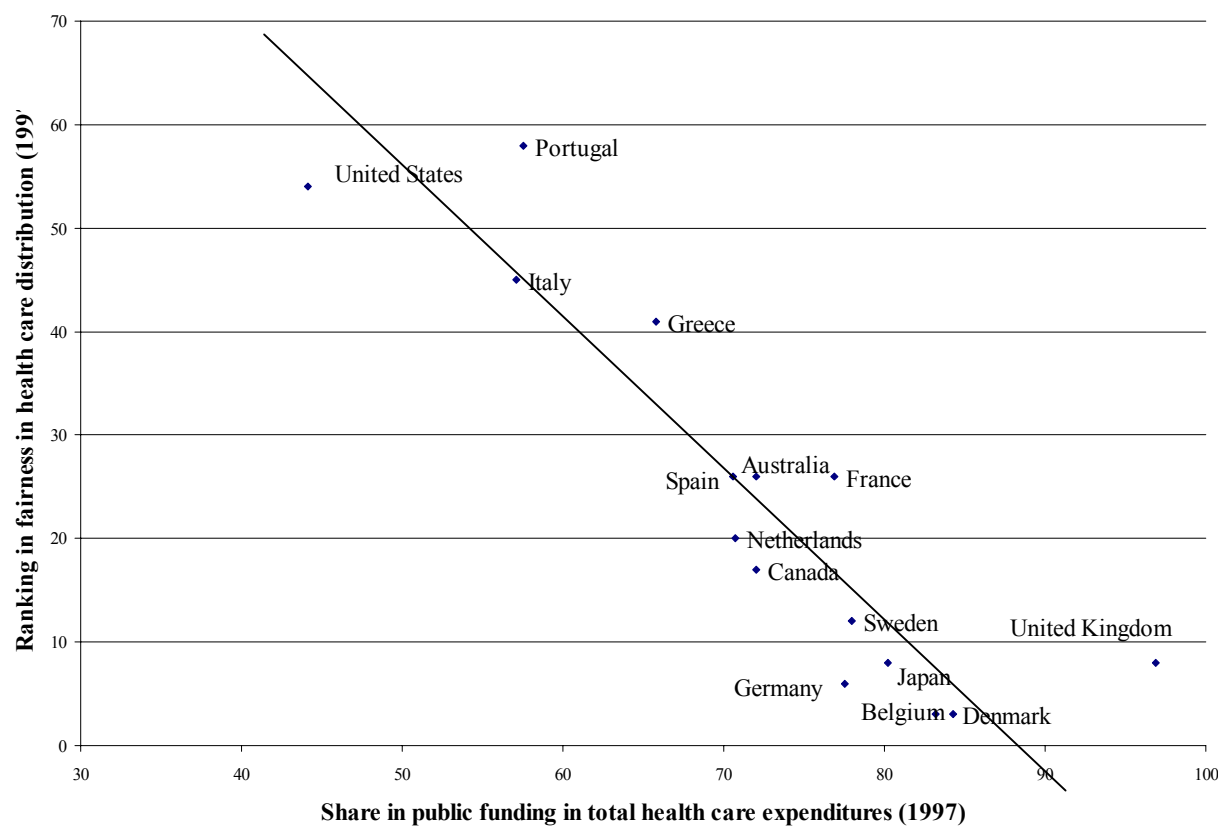
Figure 13 – The relationship between financing and overall health care system performance ranking (15 Countries)



Source : Computed from World Health Organization (2000 :152-155)

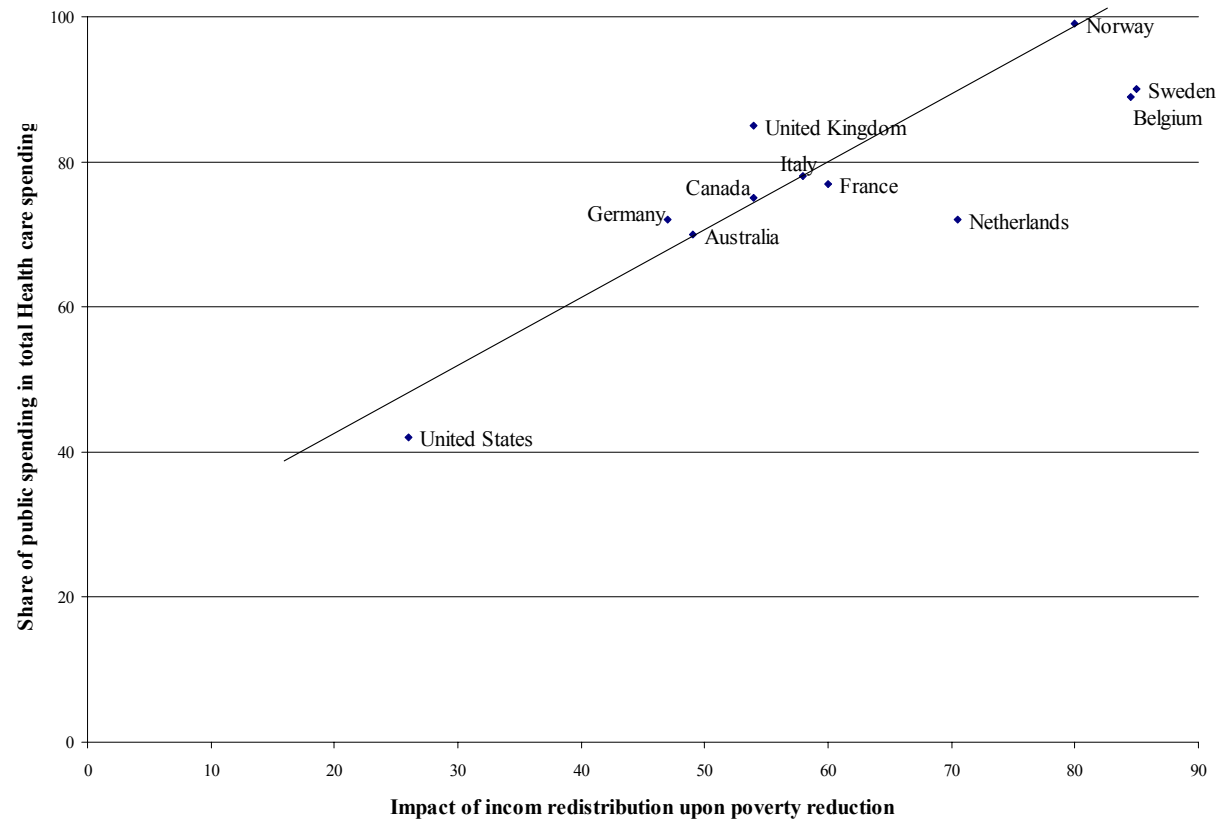
✓ *Public financing is able to promote fairness
in the distribution of healthcare*

Figure 14 – The relationship between public financing and fairness in health care distribution ranking (15 Countries)



✓ *Public financing of healthcare is associated with more efficient redistribution benefiting to the poorer.*

Figure 15 – A strong association between poverty reduction by public transfers and public financing of health care



Source : OCDE. Extracted from Henriët D., Rochet J.-Ch. (1999 :119)

- THIS IS A CONFIRMATION OF THE CONCLUSIONS OF THE THEORY.

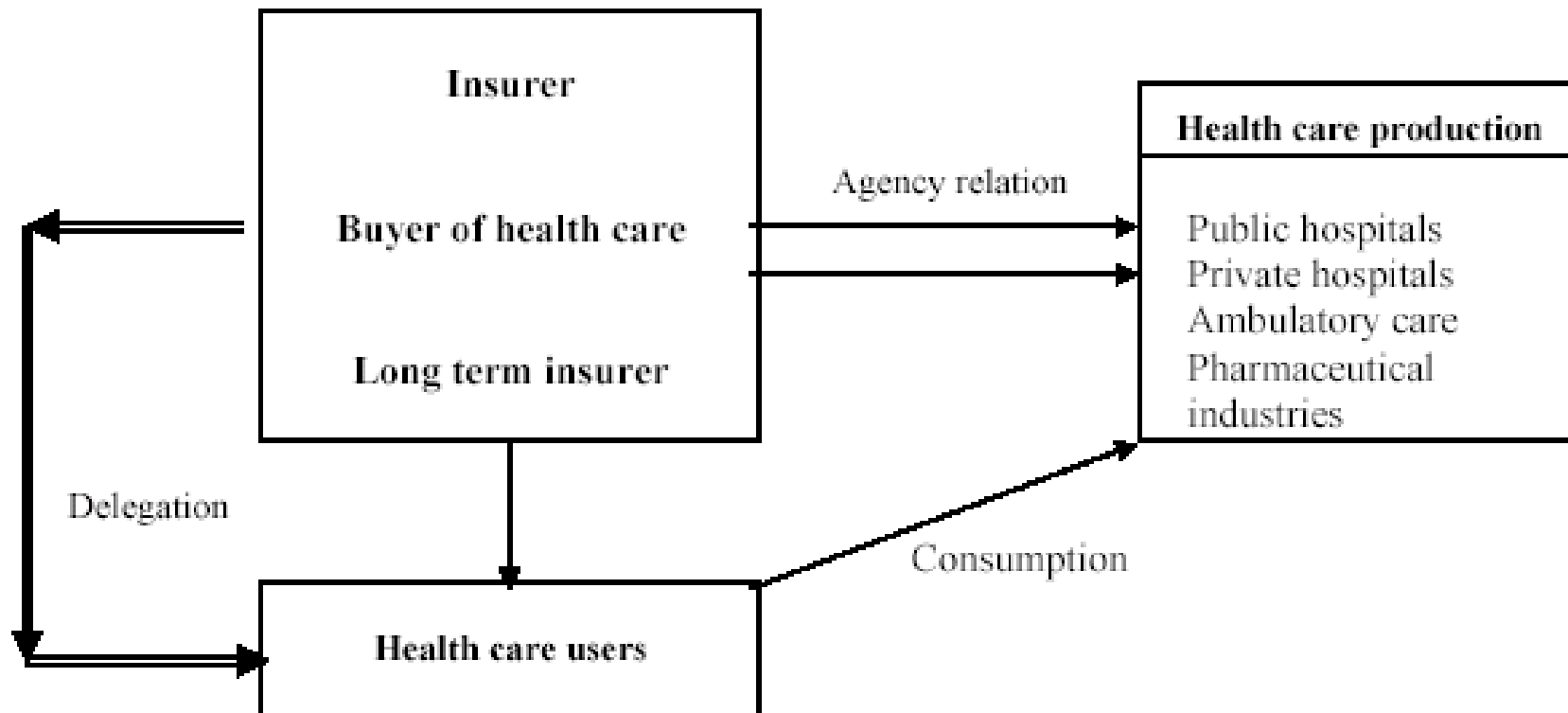
Health is a quite specific good that cannot be managed according to pure market mechanisms

- ✓ Significant externalities and public good aspect
- ✓ Health as a core component of ability and human rights
- ✓ Paternalistic constraints can benefit to individual well being.
- ✓ Private insurance and market mechanisms do not deliver social optimum.

- **A viable and efficient welfare system should exhibit an adequate mix of various institutional arrangements.**

✓ *The alternatives to pure market mechanisms call for a complex architecture, not easily managed*

Figure 16 – The nested relations between health care users, insurers and healthcare producers



Source: Adapted from Henriët D., Rochet J.-Ch. (1999: 22)

- ✓ *Consequently, European systems display a significant diversity in terms of supply of care and financing.*

**Table 4 – The relative importance of
privatization and market mechanisms in
Welfare States: A fourth dimension.**

Countries	Belgium	Denmark	Germany	France	Italy	Netherlan ds	Portugal	Spain	Sweden	United Kingdom
Nature of the system										
•National Health Care System		X			X		X	X	X	X
•Reimbursement System	X			X						
•Contractual System			X			X				
Leading financing source	Social Security	Tax	Social Security	Social Security	Social Security + Tax	Social Security + Private regime	Tax	Tax	Tax + Social Security	Tax

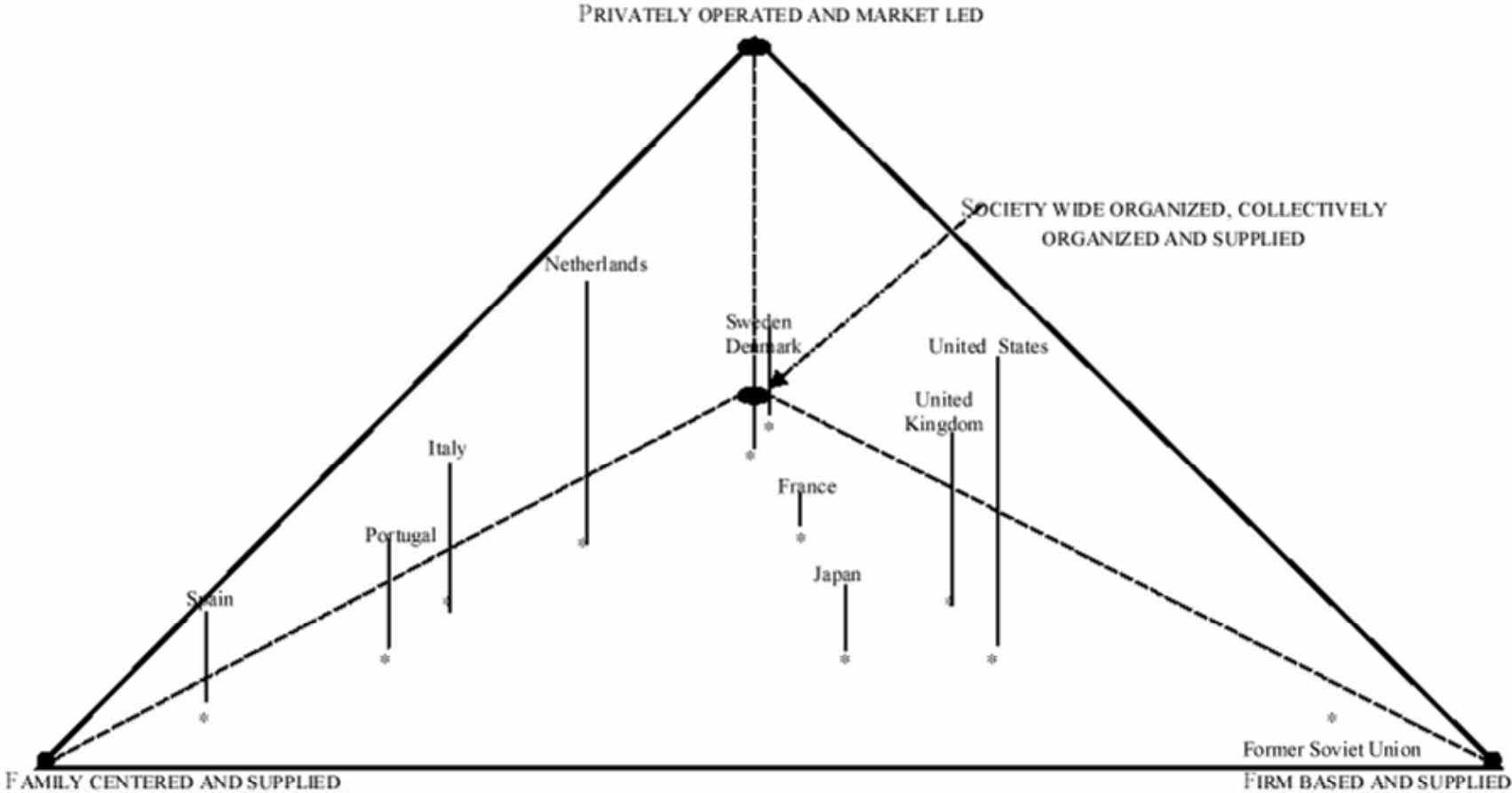
- ✓ *Another taxonomy for welfare systems:
various level and degrees of solidarity (the
family, the firm, the society)*

Figure 17 – A simplified presentation of the three logic and organizing principles of welfare States: the structure of financing



✓ *The degree of privatization and reliance to the markets is far from being the key discriminating factors*

Figure 18 – The relative importance of privatization and market mechanisms in Welfare States: A fourth dimension



- The difficult task of policy makers: design a system where the deficiency of one allocation mechanism is corrected by the strength of another mechanism

Converting the European welfare systems from a liability into a growth engine

- **The importance of assessing the relative impact of the factors affecting healthcare costs**

- ✓ *Richer individuals ask for more well being and healthcare.*
- ✓ *Price elasticity does exist but may have adverse effect upon the equal access to healthcare.*
- ✓ *The nature of collective coverage matters*
- ✓ *An underestimated factor: the intensity and endogeneity of medical technical change*

Table 5 – The factors governing long term expenditures in healthcare: France 1970-1995

	Growth rate	Share in total
Observed evolution of health care expenditure	122	100
Explained by:		
•Income effect	51	41
•Relative price effect	29	23
•Level of collective coverage	8	6
•Medical technical change	32	26
•Residual	3	3

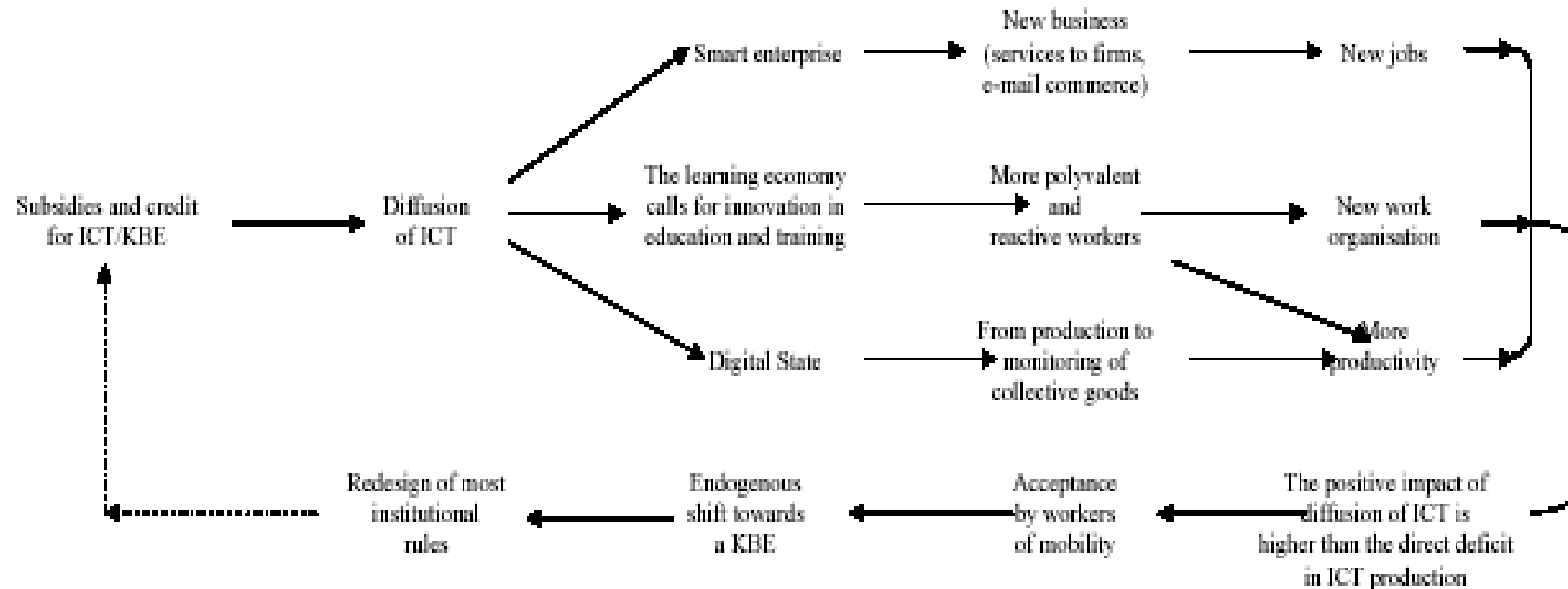
Source: L'Horty, Quinet, Rupprecht (1997) in Rupprecht F. (1999: 157)

- **A major uncertainty: the impact of ageing.**
- ✓ *A mechanical impact smaller than expected.*
- ✓ *The institutional design for old age healthcare is crucial.*
- ✓ *What will be the impact of ageing upon medical technical change.*

- **One chance for Europe: converting welfare into the source of a novel growth regime.**

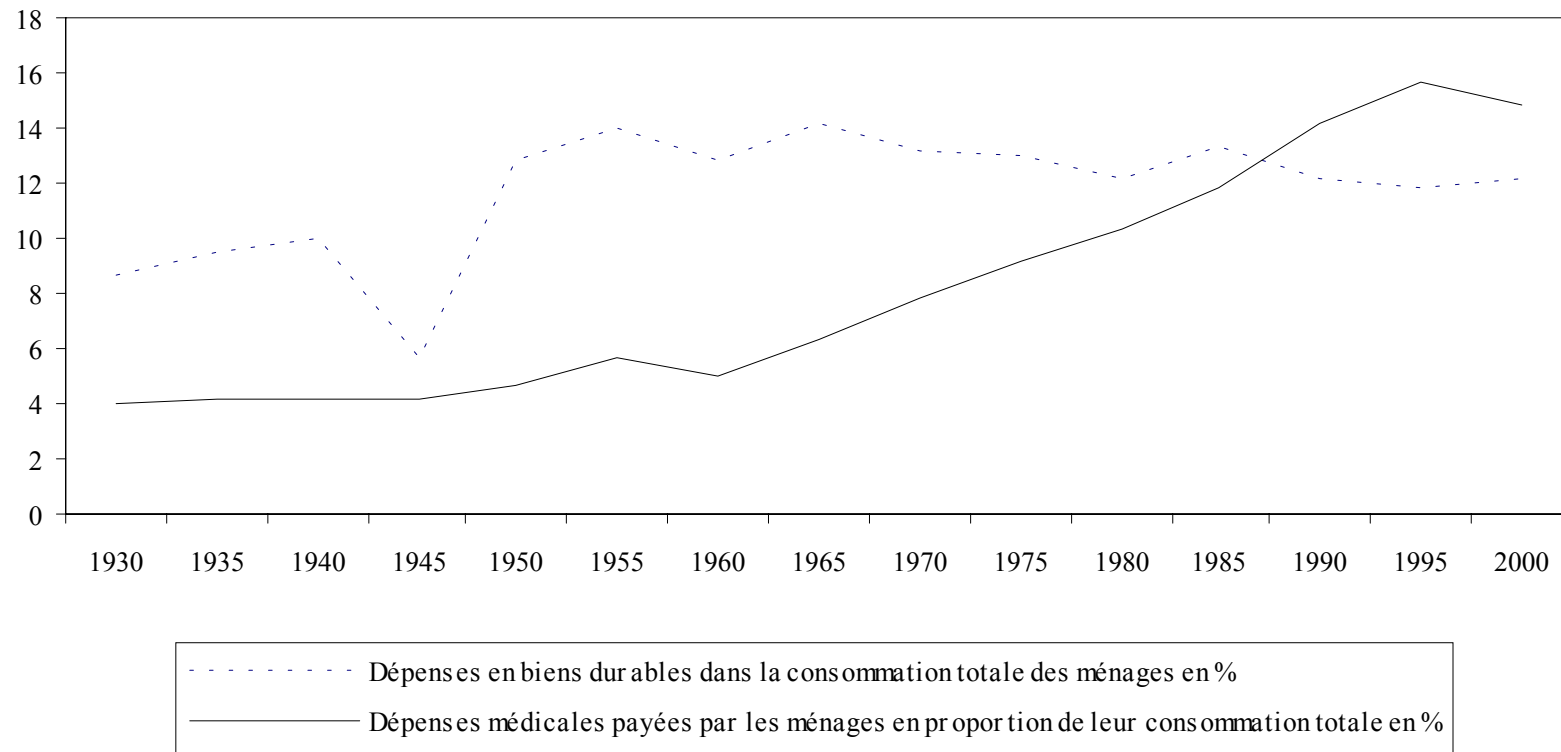
✓ *The internet bubble is over: the lag of Europe in terms of ICT is not that large*

Figure 19 – Convert the information and communication technologies (ICT) into the basis for a Knowledge Based Economy (KBE)



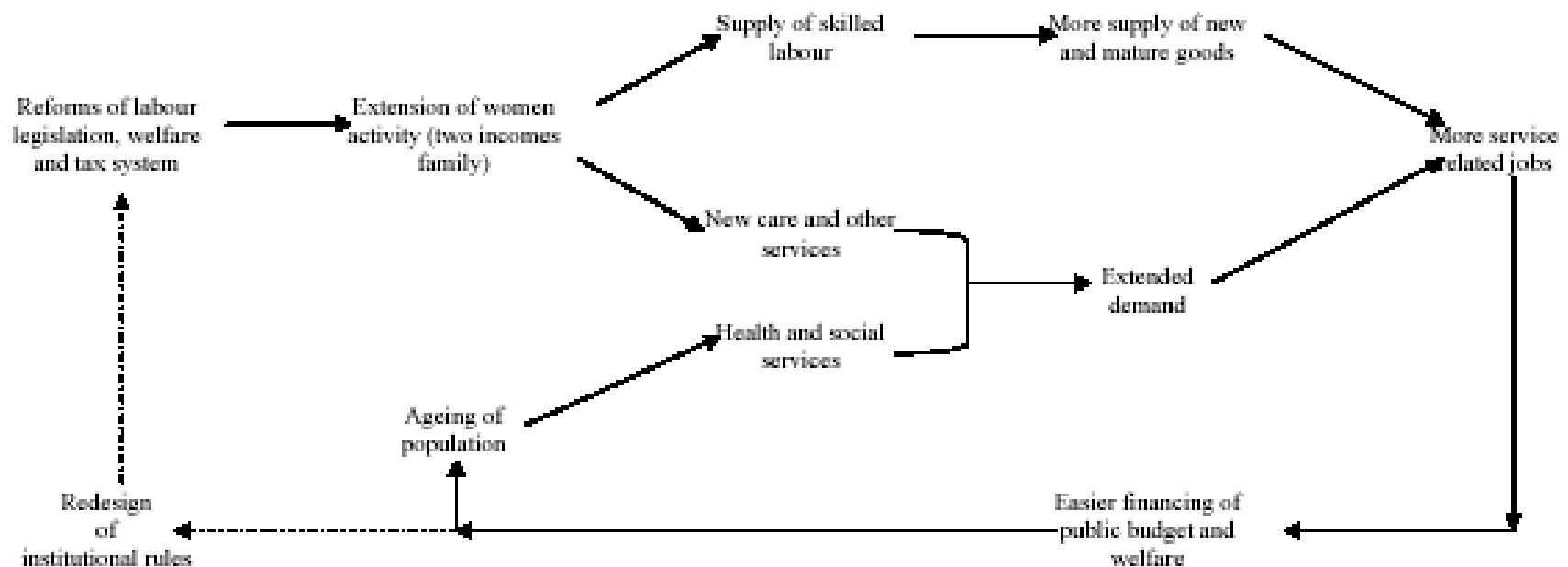
✓ *Even in the US, the healthcare expenditures tend to overcome the consumption of durable goods*

Figure 20 – Healthcare expenditures versus durable good consumption (share in total consumption) US 1930-2000



✓ *Reforming the European welfare State in order to foster gender equality and respond to the ageing to the population: toward a genuine growth regime?*

Figure 21 – An European strategy : Gender equality and responses to ageing as the source of a new service led growth

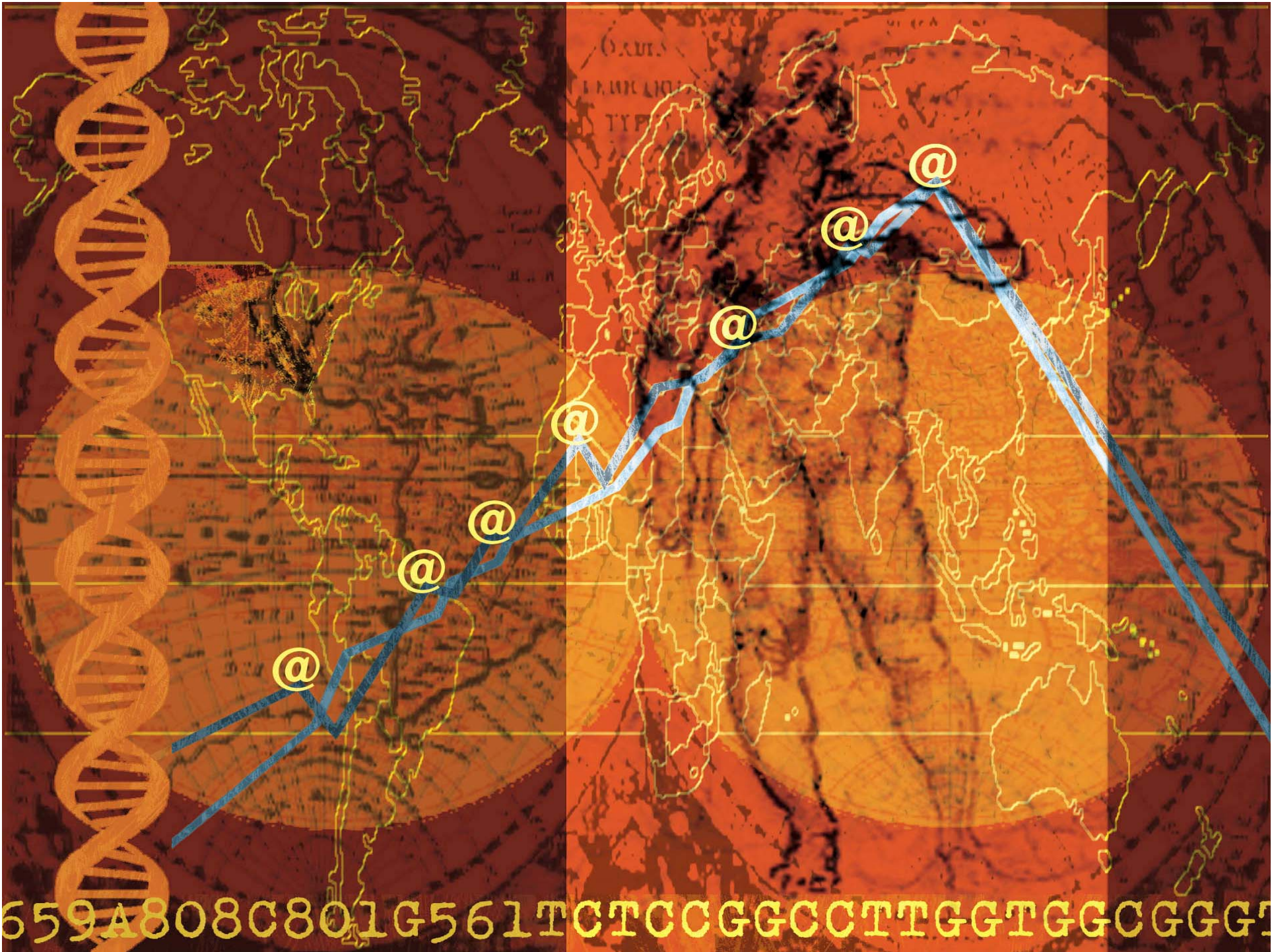


- ✓ *The need for strengthening the medical research potential of Europe, in response to the emerging social needs.*
- ✓ *The diversity of welfare system reforms: an opportunity for a clever and institutional benchmarking*

Conclusion

- ❖ **From static models of the short run impact of healthcare costs to the long run analysis of the externalities between health and growth.**
- ❖ **The reappraisal of quasi-market mechanisms call for an eclectic approach to the architecture to the healthcare systems.**
- ❖ **Do not forget that medical capital change is affected by the economic and the institutional configuration.**

- ❖ **The chance of Europe: reforming health care and welfare systems in order to convert them into an engine of growth, preserving social cohesion.**
- ❖ **A research agenda: the third stage of economic theory**
 - ✓ *Analyzing the production of commodities by commodities*
 - ✓ *Promoting the production of ideas by ideas*
 - ✓ *Preparing an anthropogenetic growth model: the production of mankind by man*



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If you are interested please consult:

“The French Welfare State” **WP Cepremap** n° 2000-07.and
the book “*la croissance début de siècle*”, Albin Michel,
Paris 2002.