

Learning from the Sen-Stiglitz-Fitoussi commission, HDI 2.0 ?

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Introduction

- **Indicators or measure do not change the world**
- **But information is critical to change the world**
- **Well founded information is essential**
 - Overall, it has allowed for better information of citizens
 - Comparisons between countries and social choices or organization of society.
- **Criticism of IDH could be conduct among two dimensions**
 - Within-perimeter index specification issues
 - Weights of variables
 - Substitution between variables implied by the construction
 - Scale and metric of variables (GDP is in log, life expectancy is in years)
 - Composition of flow (GDP) and stock (level of education)
 - A need to extend the HDI perimeter

Is GDP related to well being ?

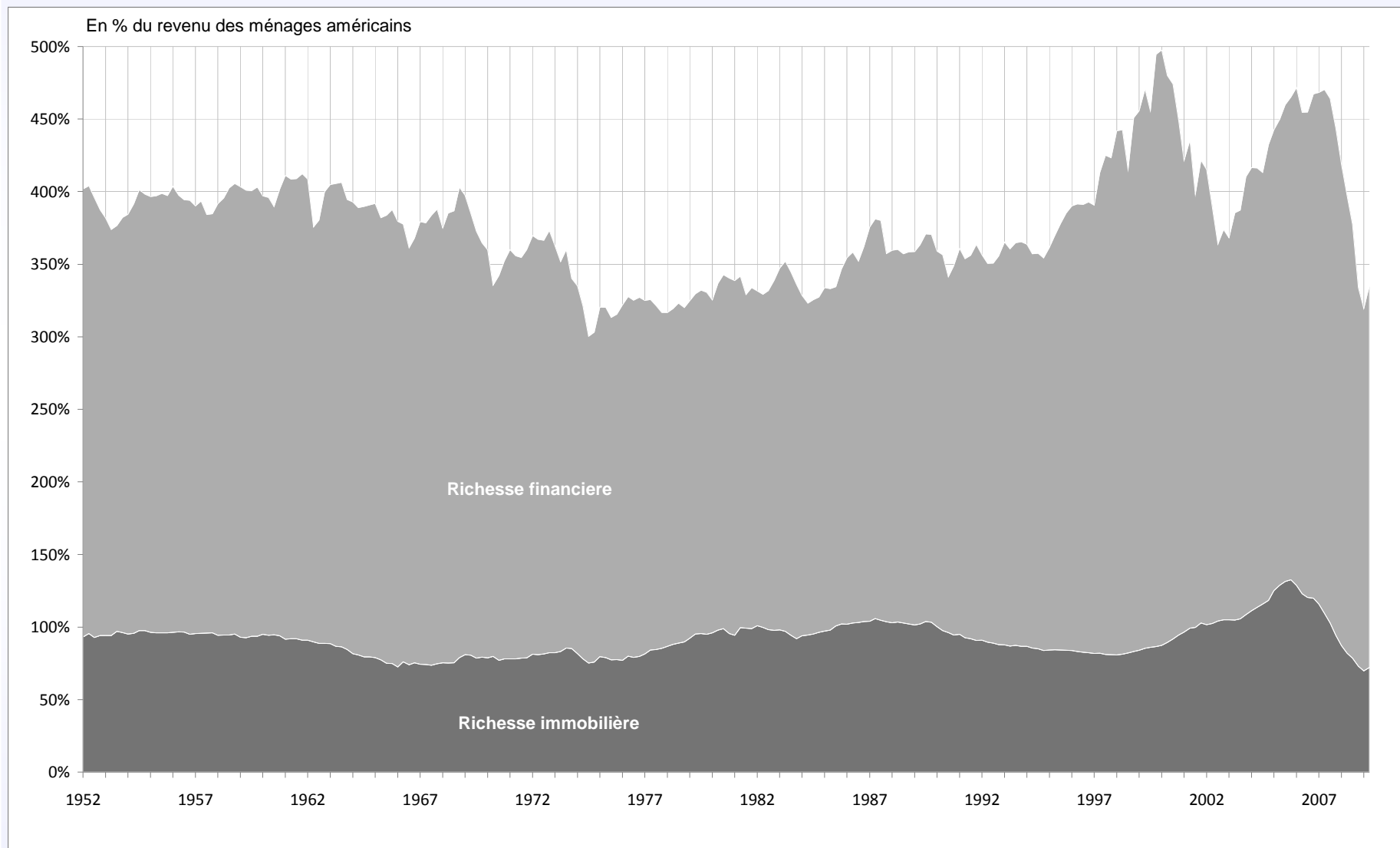
- **Under strong hypothesis, market equilibrium can be used as a measure of aggregate well being**
 - Free competition, full information, complete markets, no externalities, perfect property rights
 - Relative prices emerging from markets allows for aggregation of production, leading to a measure of economic activity

- **Under those hypothesis it is better to look at**
 - Net production, increased or decreased by wealth variation (Weitzman)
 - But estimation of depreciation has been judged inaccurate for many years
 - Wealth accounts are complex to build (existing for some countries now)
 - Net income of households, which is derived from production, taking in account what production needs to be accomplished (once again, adding wealth variation)

Is GDP related to well being ?

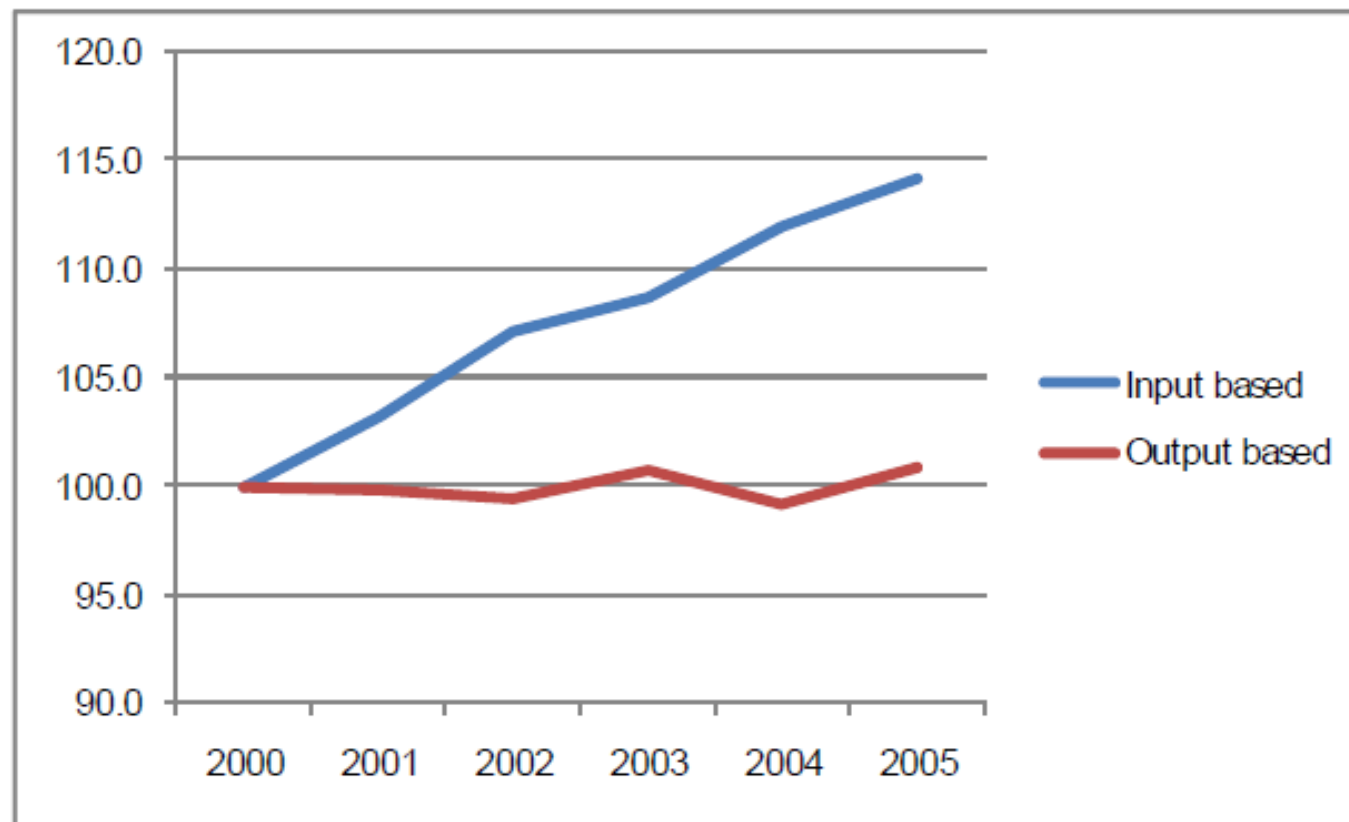
- **But the 5 strong hypothesis are not met in the real world**
 - Non-market production (1/3 of activity)
 - Accounted for since the 70's
 - Input price is favored, and it should be output (quality) based price
 - Social organization neutrality implies that a public pension scheme should be comparable to a private one
 - Should we impute the to households ?
 - What about home production ? Not accounted for, could be 100% of present GDP estimation
 - Markets are incomplete/information is not full
 - Prices of goods can be unreliable (do oil prices convey the right information about scarcity?)
 - Wealth variation is poorly measured by market prices (volatility)
 - Some prices may be misleading (price discrimination)
 - Property rights are not perfect: there are public goods
 - Depletion of environnement, natural ressources
 - Pricing ?

Financial wealth (light grey) and real estate prices (dark grey) volatility



Non-market activities: Input-Output divergence

- Health costs and health system outputs in Denmark



Source: Deveci, Heurlén and Sørensen (2008).

Beyond GDP

- **National accounting should be extended to:**
 - Systematic wealth accounts,
 - Non market produced or not capital goods such as environment or education should be included in wealth accounts
 - Depletion of natural resources should be accounted for
 - More to come on imputation
 - Net measures (and extended net measures) should be preferred
 - In some instances, some activities should be treated as intermediate consumptions
 - Justice/police or defense expenditure

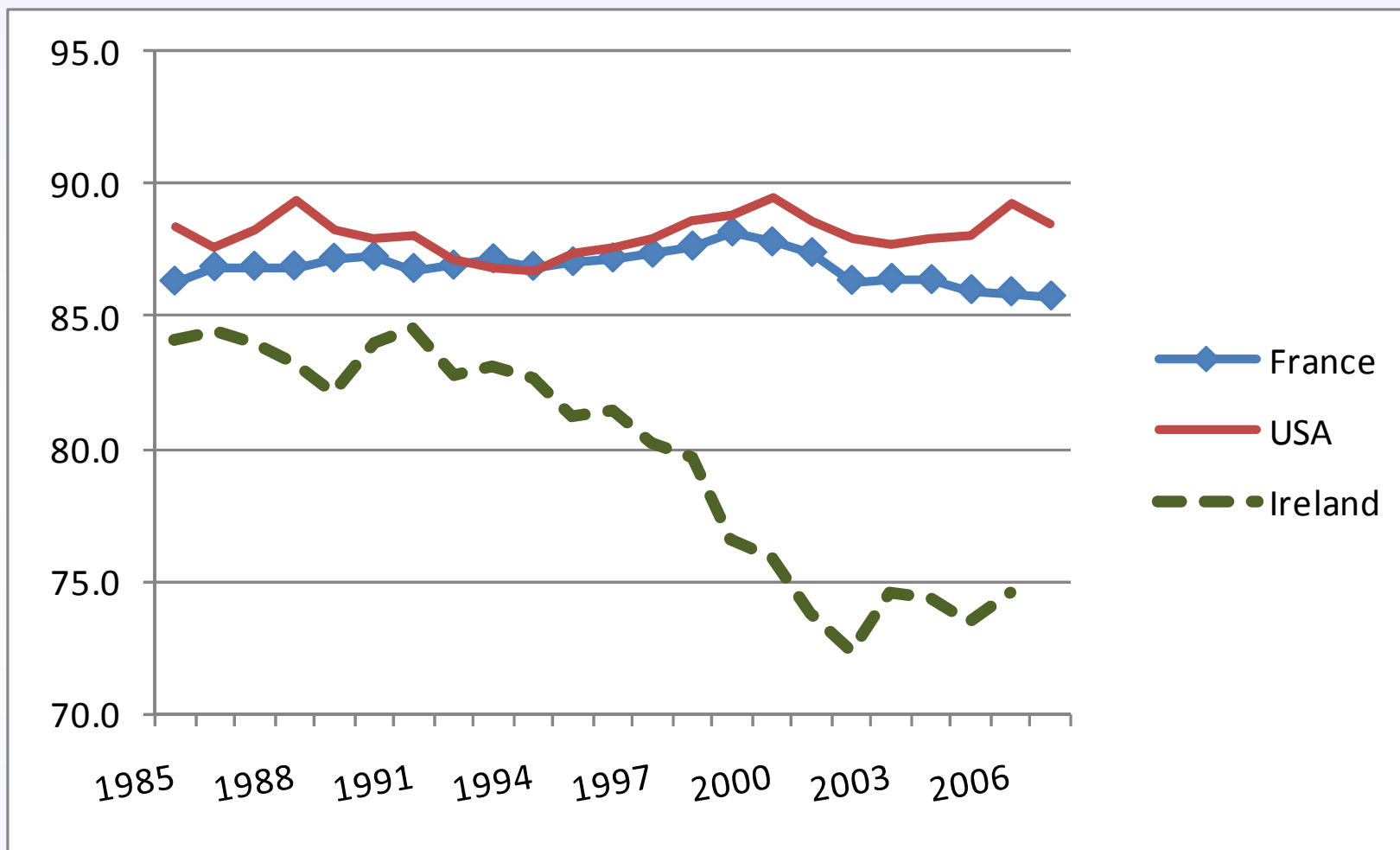
- **Some critics are hard to implement**
 - How to revisit market prices, when suspected of being misleading ?

Beyond GDP

- **Households perspective should be preferred**
 - Residents (national income as opposed to domestic product)
 - Net extended income of households
 - Net of depreciation of productive capital goods
 - Adjusted for wealth variation
 - Extended to depreciation of public capital goods
 - Adjusted for some publicly produced services
 - Minus the defensive ones
 - Adjusted for home production and leisure consumption

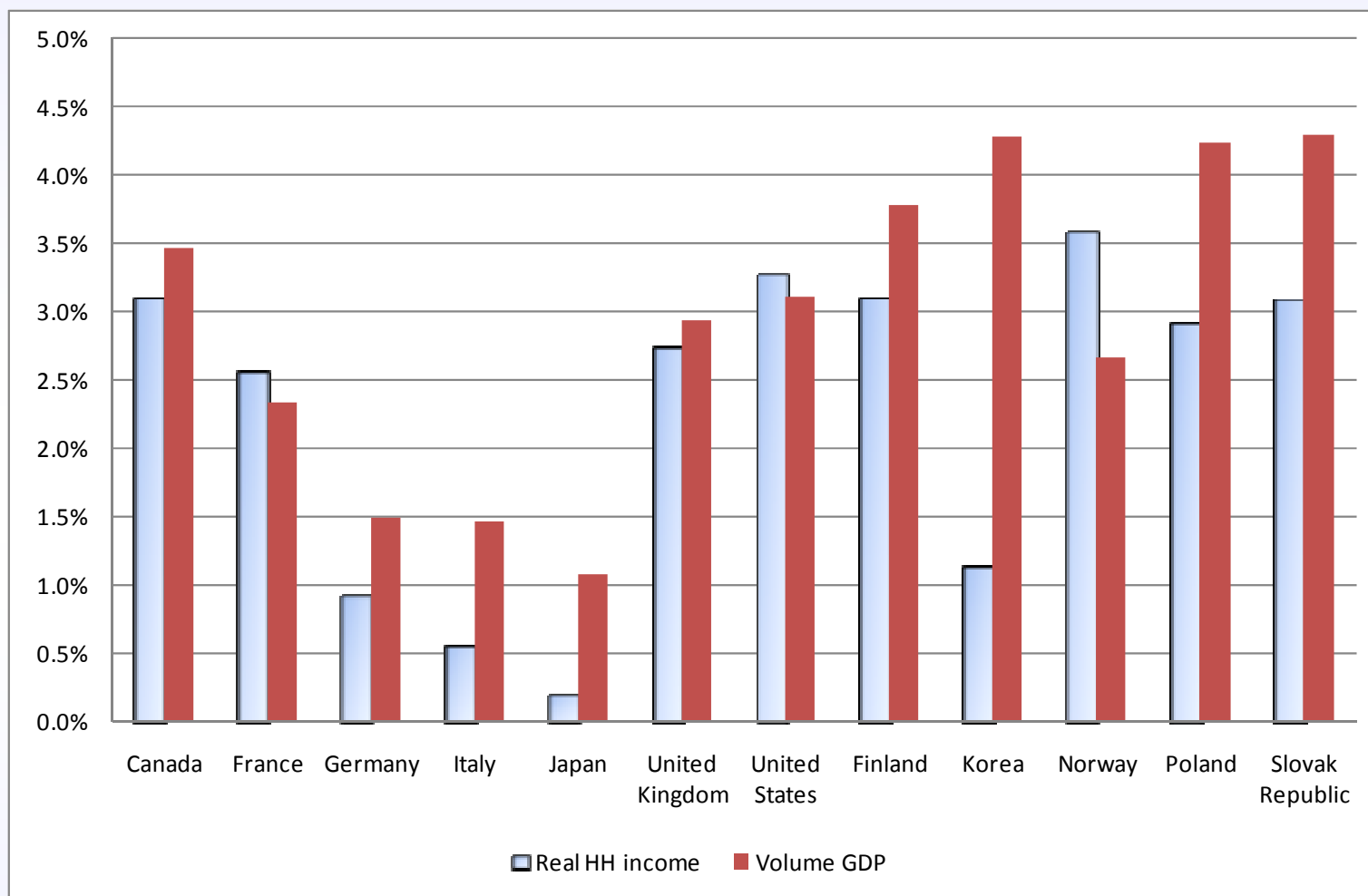
- Too much imputation can lead to lack of clarity and confidence in accounting (Deaton)

National income versus gross domestic product



Source: Stiglitz-Sen-Fitoussi commission report

From GDP to households



Source: Stiglitz-Sen-Fitoussi commission report

Adjustment makes a difference!

Household income

		France	United States	Finland
Real disposable income* per capita*	USD	19338	29448	14395
	USA=100	66	100	49
Real adjusted disposable income** per capita	USD	25378	32110	21771
	USA=100	79	100	68
Real GDP per capita (total economy)	USD	30519	41740	30460
	USA=100	73	100	73

*For private households and non-profit institutions serving households; net of depreciation; converted with PPPs for final consumption expenditure

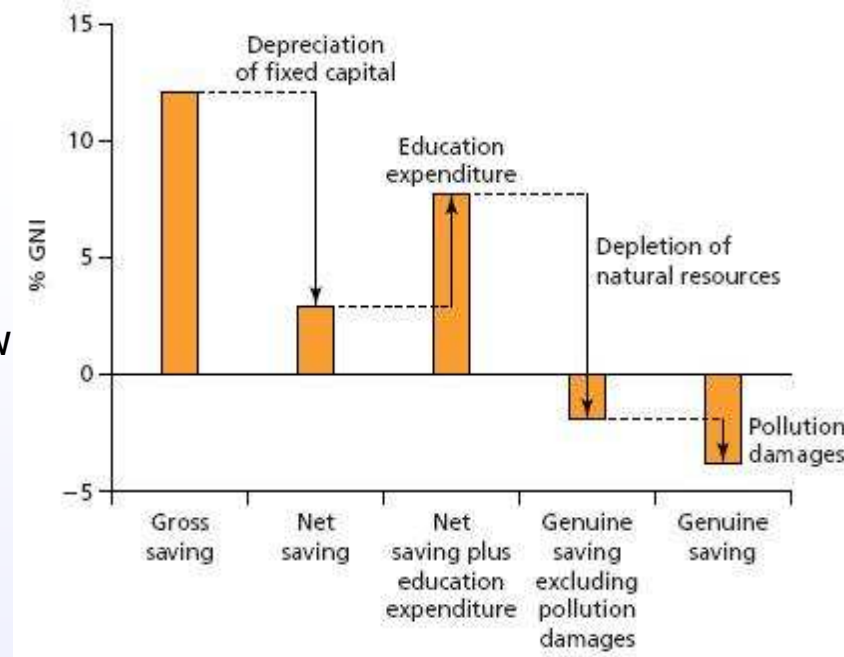
**Equals disposable income corrected for social transfers in kind and converted with PPPs for actual individual consumption

Source: *Stiglitz-Sen-Fitoussi commission report*

- Moreover, household surveys would allow to estimate more precisely other “benefits”, such as leisure, which can make a significant difference in growth estimates, or capabilities in general (access to cultural goods, political rights, general well-being, social connections, etc.).

Beyond HDI

- **More complex SNA are costly**
 - Developing countries need a more feasible approach
 - Still, some elements are important
- **broad household surveys will be extremely difficult to set up in the short run**
 - But home production, grey markets, informal markets are an essential part of developing countries economy
- **Going from gross production to net production is doable, and can change a lot**
 - Productive capital depreciation is important to assess the growth path
- **Adding human capital and natural Resources should add a lot of information**
 - Assessing for sustainability
 - genuine savings approach : pure flow
 - Stocks and flows accounting is more Flexible (substitution/complements)



Genuine savings needs some complements

■ Education generates depreciation

- People with education leaving the work force (retiring) or the population (dying, migrating)
- Migration is a major issue for developing countries
- Retiring is important for developed countries (gross French investment is 6% GDP, net is nearly 0)

■ What are the price of each component

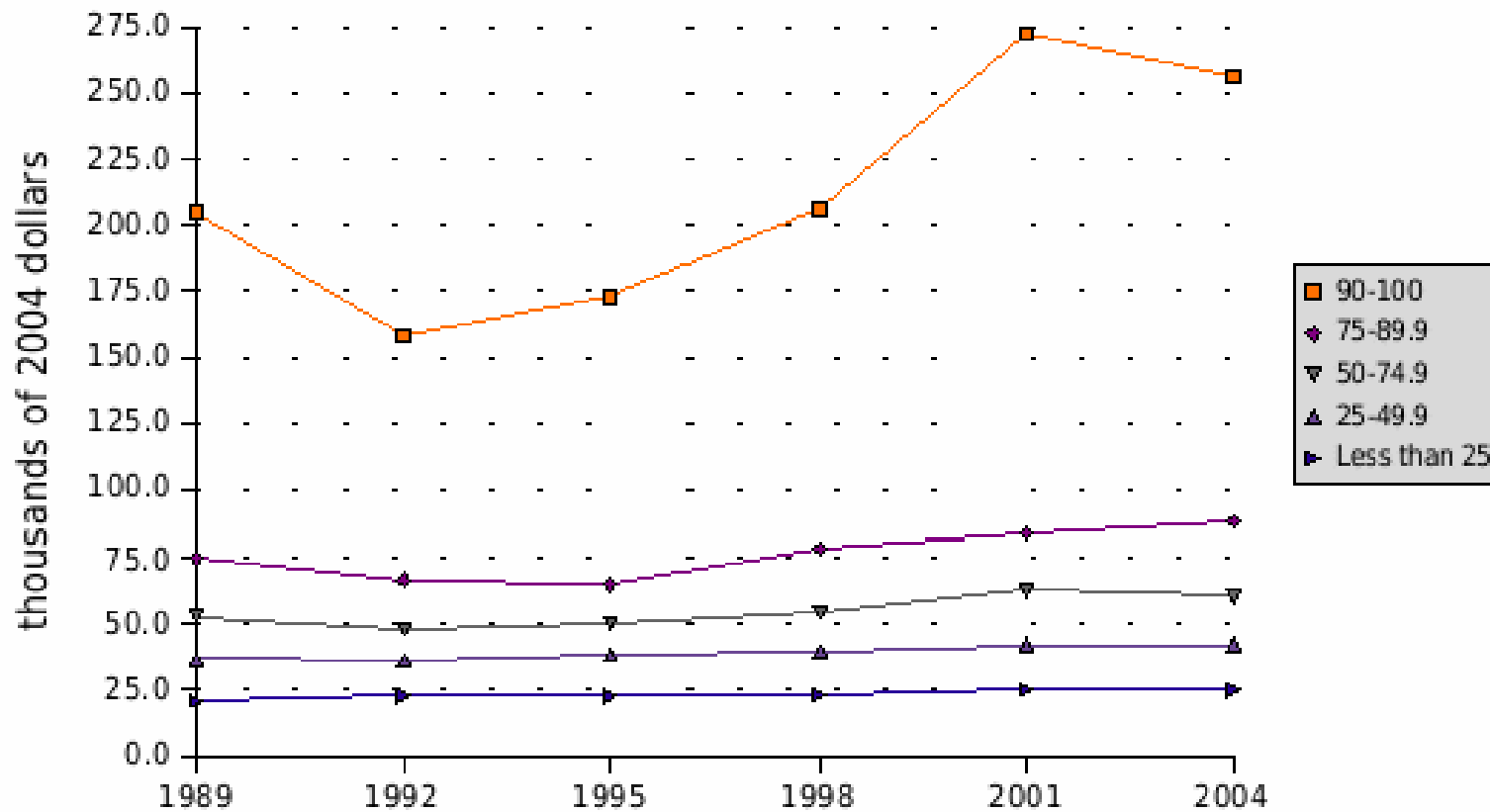
- Market prices ? Input prices ? Social prices ?
- Substitutability is also about prices

■ To whom do you impute environment degradation or depletion ?

- Is it the producer (current solution) or should it be the final consumer (import and export of CO2 emission imputed through goods of services)
- Natural resources : are you judging sustainability of consumption path or reduction in (collective) national wealth
 - Do you affect depletion of oil to producer: selling it today means less income in the future
 - Do you affect depletion to final consumer: consuming today means less consumption tomorrow

Inequality

before-tax family income by percentiles of net worth (mean)

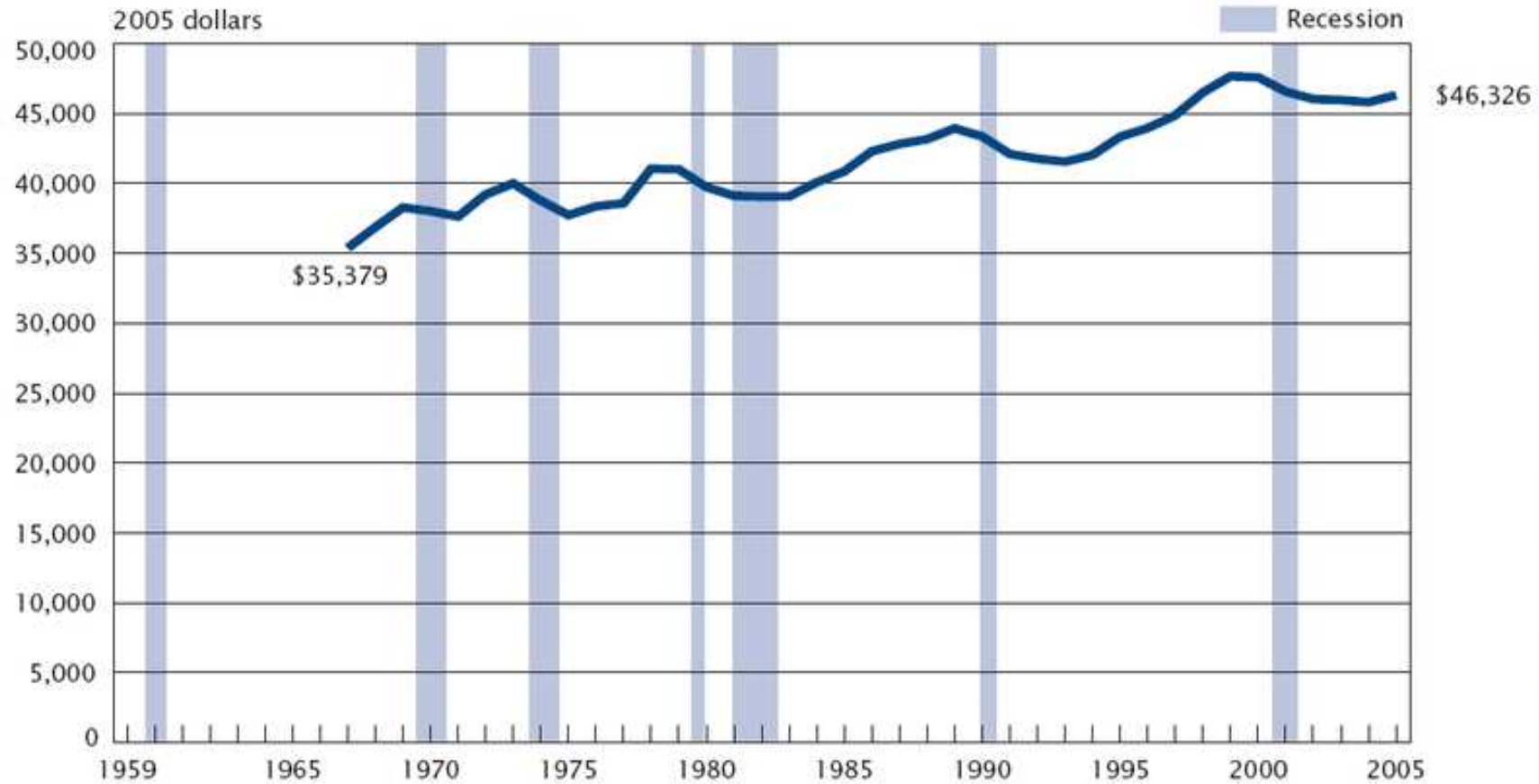


■ **Most interesting is the average situation**

- Average income plus very high income individuals lead to misleading information
- Today the richest 1/1000 get 10% of household (unadjusted) income (from 2% in 1985)
- By itself, it implies an increase of average income of 10% (0.5% per year), with no change for others !

Median income give a very different picture

Real Median Household Income: 1967 to 2005



Conclusion

■ **Extending the HDI**

- adding annual investments in human capital measurement
- Measuring environment (and its depreciation) is feasible and suitable in the short run
- Adding an ecological footprint variable would complement *Genuine savings* (and deal with substitution implied by pricing)
- Imputation of degradation and depletion to producer/consumer/owner is important

■ **Not mixing stocks and flows**

- Having a separate ranking exhibiting annual changes in the production of all forms of capital would create different (and stronger) incentives for governments
- There is excessive inertia with “stock variables”.

■ **The measurement of inequalities is necessary**

■ **In the long run**

- Neutrality of accounting toward social organization
- Pricing of non market goods and services
- Home production
- Well-being and capabilities through household surveys would be a major step forward