All that glitters ain't gold.
A "beyond GDP" strategy for well-being

Francesco Sarracino
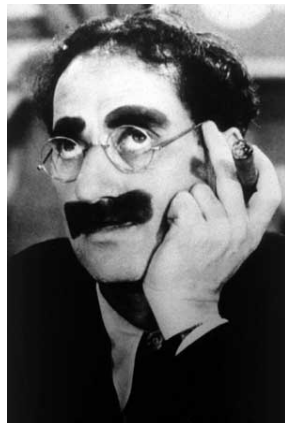
STATEC, Luxembourg
GESIS, Germany
LCSR, Russia

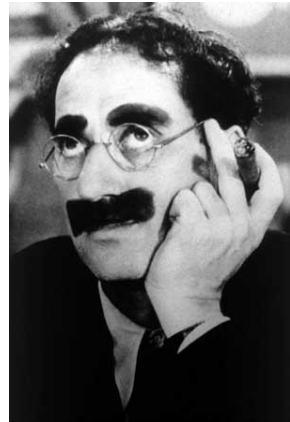15th of November 2013

Introduction

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"There are many things in
life more important than
money,

but they cost so much!"

Introduction

Subjective well-being:

SWB measures are:

- relatively easy to monitor:
    - surveys;
    - Experience Sampling Method;
    - Day Reconstruction Method;
    - key-words (diaries, twitter, facebook).

Subjective well-being:

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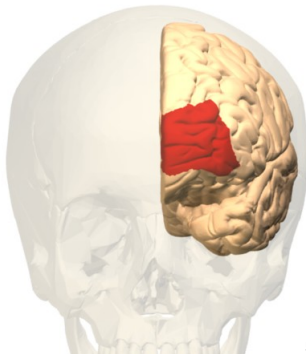- reliable and valid;

Summary:

SWB measures are:

- relatively easy to monitor:
  - surveys;
  - Experience Sampling Method;
  - Day Reconstruction Method;
  - key-words (diaries, twitter, facebook).
- reliable and valid;
- insightful:
  - unemployment and inflation;
  - role of GDP;
  - environmental conditions;
  - shadow prices;
  - institutional conditions;
  - · · ·

The relationship between income and well-being

Life satisfaction and GDP per person at PPP*

Circle size is proportional to population size
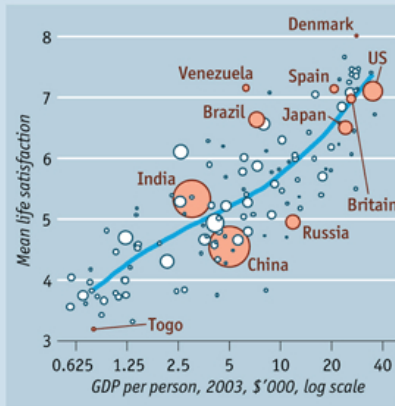
Sources: Penn World Table 6.2; Gallup World Poll, Angus Deaton

*Purchasing-power parity

the Easterlin paradox

Figure: Income and happiness in US 1946 - 1996.

Source: Layard (2003)

"It all looks so great. I can't wait to be disappointed."

Hedonic treadmill 2: social comparisons
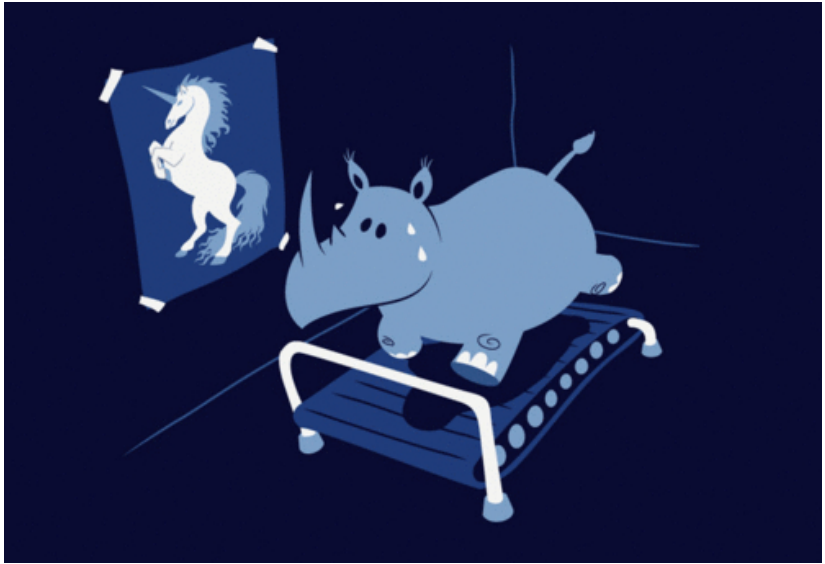
The paradox: a highly debated issue

1. SWB varies over time and it does not vary in the same way in every country (Stevenson and Wolfers, 2008; Inglehart, 2010; Sarracino, 2012)

2. trends of SWB are positively correlated with economic development (Stevenson and Wolfers, 2008; Sacks et al., 2010; Veenhoven and Vergunst, 2013)

Even if GDP matters, there are things that matter more!

SC plays a major role in determining people's well-being

In particular, the **quality of the relationships** among people has a predominant impact on their well-being.
Helliwell and Putnam (2004); Helliwell (2006); Bruni and Stanca (2008); Becchetti et al. (2008)

SC is "networks together with shared norms, values and understandings that facilitate co-operation within or among groups" OECD (2001)

The value of social relationships

$5.250 to compensate

$3.150 per year

$6.000 for a year of not meeting

Source: Powdthavee (2010).

$12.000

The value of social relationships

$5.250 to compensate

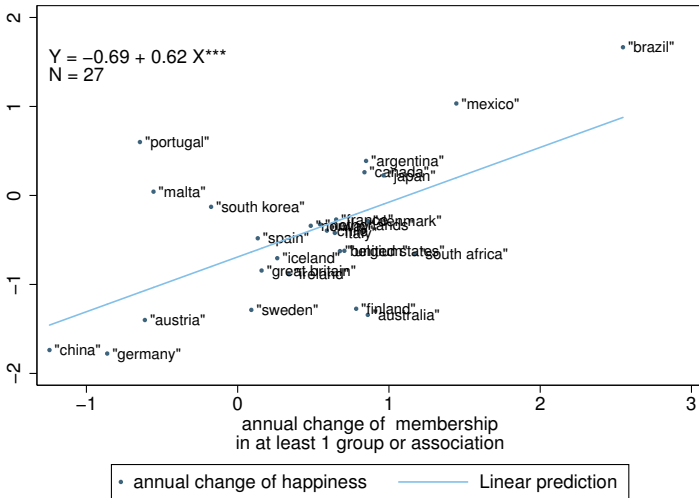$3.150 per year

$6.000 for a year of not meeting

$12.000

Source: Powdthavee (2010).

How are the trends of SC and SWB related?

Participation in groups and associations

Source: Bartolini and Sarracino (2011), WVS-EVS integrated data-set.

Participation in groups and associations
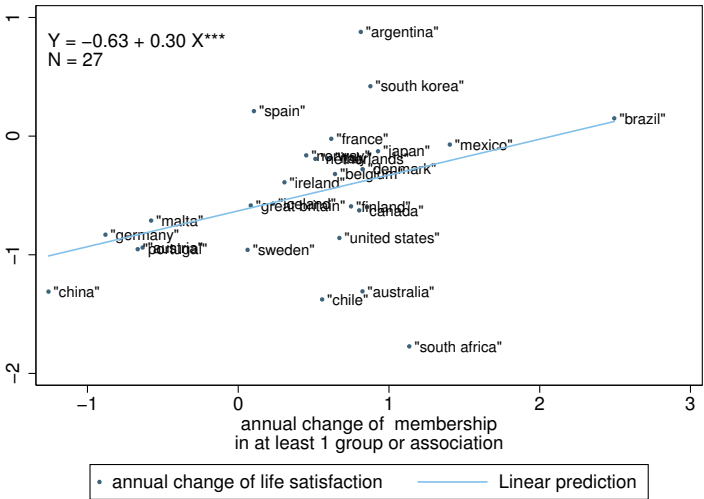
Source: Bartolini and Sarracino (2011), WVS-EVS integrated data-set.

Results:

- the trends of group membership are significantly and positively correlated with trends of subjective well-being;
- the results are robust to the inclusion of GDP growth rate;
- the result is confirmed if we adopt a different proxy (social trust) and different data-sets (ESS).

is this the result of pulling together different countries?

Declining trend in US Happiness: WHY?

The trend of US happiness is predicted by **3 forces that drive the trend in opposite directions**:

- absolute income growth;

- social comparisons;

- social capital: relational goods and trust in institutions.

Source: Bartolini et al. (2013), US General social survey, 1975 - 2004.

Declining trend in German Happiness: WHY?

The variation in German SWB is explained by the same forces acting in the US.
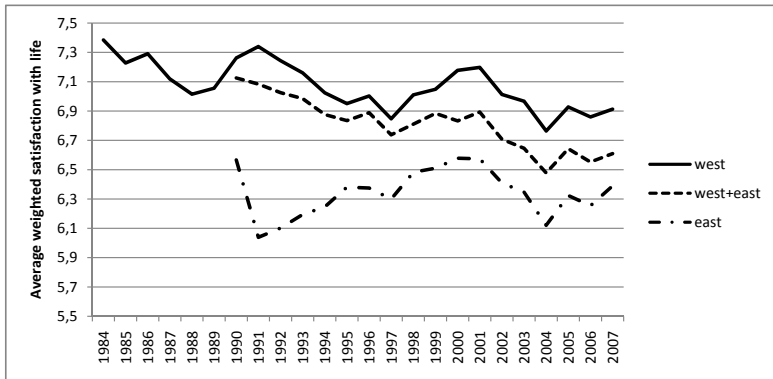
Trends of average weighted satisfaction with life for the three sub-samples: westerners (1984 – 2007); easterners (1990 – 2007) and the two sub-samples together (1990 – 2007). Averages have been computed using cross-sectional sampling weights (GSOEP source variable: w1110507).

Source: Bartolini et al. (2012), German SOEP data

Predictors of the decline in German well-being

The predicted negative impact of:

- social comparisons;
- adaptation.

offset the predicted positive impact of the increase in income.
The positive trends of social capital moderate the well-being loss.

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How general are the results?

All that we know:

- income matters for well-being;
- social comparisons and adaptation reduce well-being;
- social capital matters for well-being.

...may be driven by more developed countries, where basic needs have been met and people are free to care for other aspects, such as social relationships.

What do we know about developing countries?

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Evidence from China

Image: naturalgasasia.com

The gains from economic growth

- % of people living with less than 1.25 US$ per day

1981	2008
84%	13%

- % of rural population with access to improved water source

1990	2010
56%	85%

- number of internet accounts:

1997	2006
0.62 Mil.	123 Mil.

- number of TV set accounts:

1978	1997	2006
1 Mil.	232 Mil.	350 Mil.

- yearly growth of household final consumption expenditure between 1990 - 2011 = 58.83% (US = 8.16%)

World Bank national accounts data and http://www.chinatoday.com/.

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Source: http://www.bbc.co.uk/news/world-asia-china-20069627.

Life satisfaction and GDP across time in China*.

*GDP per capita (2000 US$), World Development Indicators, The World Bank.

Explaining the decreasing SWB in China:

- Brockmann et al. (2009) find a "frustrated achievers" mechanism;
- Easterlin et al. (2012) focus on inequalities and on the drop of social safety nets;

My aim

Explaining the decreasing SWB in China:

- Brockmann et al. (2009) find a "frustrated achievers" mechanism;

- Easterlin et al. (2012) focus on inequalities and on the drop of social safety nets;

Can SC contribute to explain the trends of (un)happiness in China?

▶ is China following the same pattern of the US?

The gap between 1990 and 2007
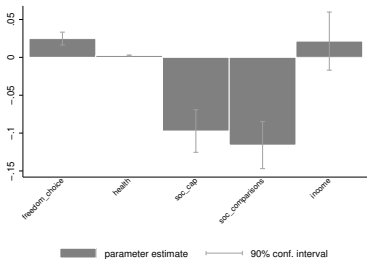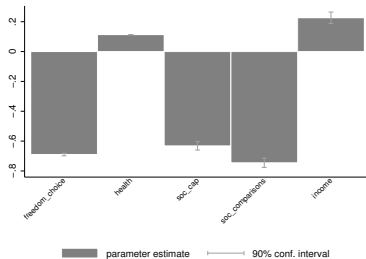
(a) Endowments = 65%   (b) Preferences = 35%

Source: Sarracino, forthcoming, WVS data.

The same applies to India
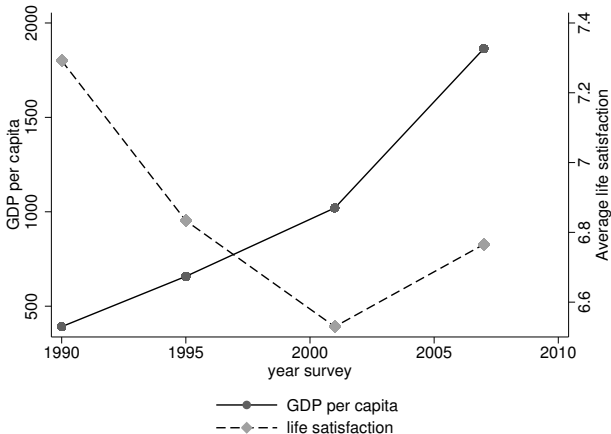

Life satisfaction and GDP across time in India*.
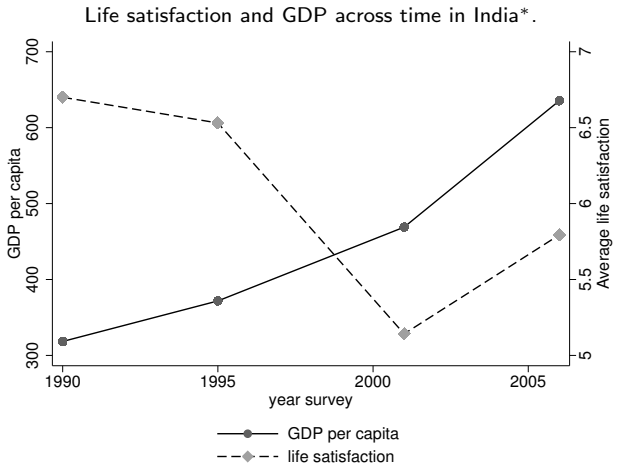
*GDP per capita (2000 US$), World Development Indicators, The
World Bank.

Summarizing

- the trend of Chinese and Indian well-being is shaped mainly by 2 forces:
    1. increased importance of social comparisons/"frustrated achievers";
    2. the erosion of social capital.
- economic growth did not improve the human lot;

Summarizing

- the trend of Chinese and Indian well-being is shaped mainly by 2 forces:
    1. increased importance of social comparisons/"frustrated achievers";
    2. the erosion of social capital.
- economic growth did not improve the human lot;

China, India and the US:

The economic growth characterizing China and India after 1990 mirrored the same patterns of the US: social comparisons and the erosion of SC are at the origin of the decline of SWB.

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Economic growth and bad being

Is there a relationship?

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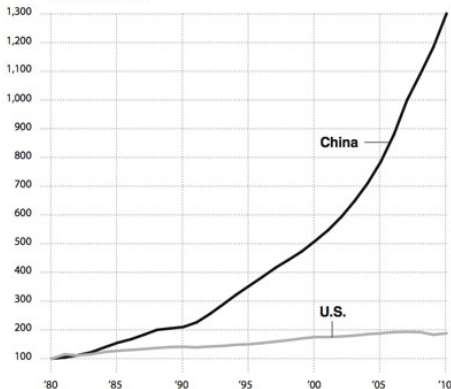
The Negative Endogenous Growth (NEG)
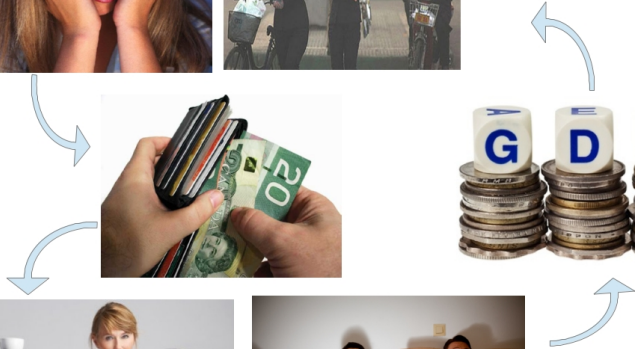
Economic growth is fed by its own erosive power

Social poverty vs. economic prosperity?

Is social poverty the price to pay for economic prosperity?

Are people destined to wealthier, but unhappier lives?

The answer is...

Social poverty vs. economic prosperity?

Is social poverty the price to pay for economic prosperity?

Are people destined to wealthier, but unhappier lives?

The answer is...
It depends!

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The case of Brazil

Life satisfaction and GDP across time in Brazil*.
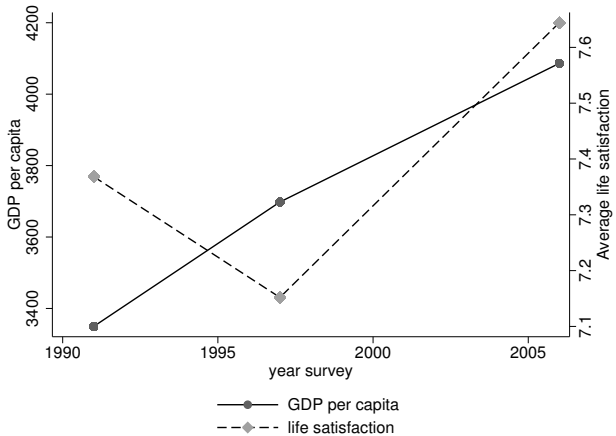
*GDP per capita (2000 US$), World Development Indicators, The
World Bank.

Summarizing:

The quality of economic growth matters for social capital and
well-being.

In an international perspective:

- the Brazilian economic system (similarly to some European
  countries) is more compatible with the relational needs of its
  people and their well-being;

- the way economic systems are organized matter for their
  social and well-being outcomes.

**whether economic growth is associated to unhappiness and
erosion of social capital is a matter of economic organization.**

Conclusions

- The quality of economic growth matters;
  1. Income is a component of well-being, but it is not all that matters;
  2. The quality of the relational experience is important for well-being.

- people's well-being asks not only for material needs, but also for further aspects coming from the relationships with others and the surrounding environment;

- new areas of intervention to promote well-being: urban organization, educational system, labor market, etc...

Open issues and future research

There is still a lot of work to do:

- causality;
- extend the evidence to further countries;
- solve some methodological issues;
- exploring the conditions leading to virtuous economic growth;
- ...

Thank you!

Happy for how long? the long-run

what does explain the variation of SWB in the long-run?

data-set: 6 waves WVS/EVS integrated data-set: 1981 - 2009;

total: 169000 obs, 27 countries;

Happiness: "Taking all things together, would you say you are: [1] very happy ... [4] not at all happy" ;

log of the **GDP** per capita (constant 2000 US $, WDI);

Social Capital: Long-term: share of the population participating in at least one group or association.

Happy for how long? the medium and short-run

what does happen if we shorten the time span? Will the result change?

data-set: 4 waves ESS data-set: 2002 - 2008;

total: 162000 obs, 24 countries;

Social Capital: index of social trust using the following 3 items:

- **Most people can be trusted**

- **Most people are helpful**

- **Most people are unfair**

Relationship among medium-term trends

Table: Trivariate regressions of trends of subjective well-being over changes of the index of social trust and trends of GDP (standardized variables).

	(1) happiness	(2) life satisfaction
index of social trust	0.797***	0.731***
	(4.03)	(8.06)
trend of log GDP	0.268**	0.323*
	(2.41)	(2.02)
Constant	$-7.96e-10$	$5.56e-10$
	(-0.00)	(0.00)
Observations	24	24
Adjusted R^2	0.702	0.630

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.001$

Relationship among short-term trends

Table: Trivariate regressions of trends of subjective well-being over changes of the index of social trust and trends of GDP (standardized variables).

	happiness	life satisfaction
index of social trust	0.255**	0.214
	(2.18)	(1.58)
changes in log GDP (2yrs)	0.568***	0.525***
	(4.69)	(4.73)
Constant	$-3.27e - 09$	$1.76e - 09$
	(−0.00)	(0.00)
Observations	58	58
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Medium and short run compared

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Table: Medium-term

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Table: Short-term

Trends in US social capital, 1975-2004

Variable	Trend	Variable	Trend
Family		**Trust**	
Married	−.030***	General trust	−.015***
Separated	.038***	People unfair	.010***
Divorced	.003	People helpful	−.006***
Socializing		**Confidence in institutions**	
Monthly with relatives	−.001	Banks	−.024***
Monthly with neighbours	−.015***	Companies	−.006***
Monthly with friends	.006***	Executive	−.007***
Monthly at bar	−.009***	Education	−.024***
Membership		Universities	−.010***
1-2 Putnam's groups	−.010***	Medicine	−.020***
3+ Putnam's groups	.002	Science	−.003***
# Putnam's groups	−.003**	Organized religion	−.023***
1 Olson's groups	−.008***	Press	−.045***
2+ Olson's groups	.004	Television	−.030***
# Olson's groups	−.001***	Supreme Court	.0002
Other groups	−.004***	Congress	−.020***
# other groups	−.001***	Military Forces	.016***

Note: probit, OLS for #

Source: Bartolini et al. (2013), US General social survey, 1975 - 2004.

Accounting for the happiness trend

Computing the predicted impact on happiness of each variable over the period 1975-2004

$$\Delta H = \alpha(X_{2004} - X_{1975})$$

For each regressor α is the coefficient of the happiness regression, while X_{2004} and X_{1975} contain the average values of the regressor in year 2004 and 1975.

Accounting for the happiness trend

Disaggregation of happiness variation 1975-2004

Groups of regressors	Impact on happiness	Partial sums	Type of SC
Demographics	−.0075	−.0075	
Absolute income	.0910		
Relative income	−.0620	.0290	Income
Other socio-economics	.0135	.0350	All non-SC
Marital status & children	−.0309		
Social contacts	−.0003		
Trust in individuals	−.0091		
Putnam's groups	−.0025	−.0428	Non-Instr RSC
Olson's groups	−.0006	−.0434	RSC
Confidence in institutions	−.0061	−.0495	All SC
Predicted variation	−.0145		
Observed variation	−.0192		

Source: Bartolini et al. (2013), US General social survey, 1975 - 2004.

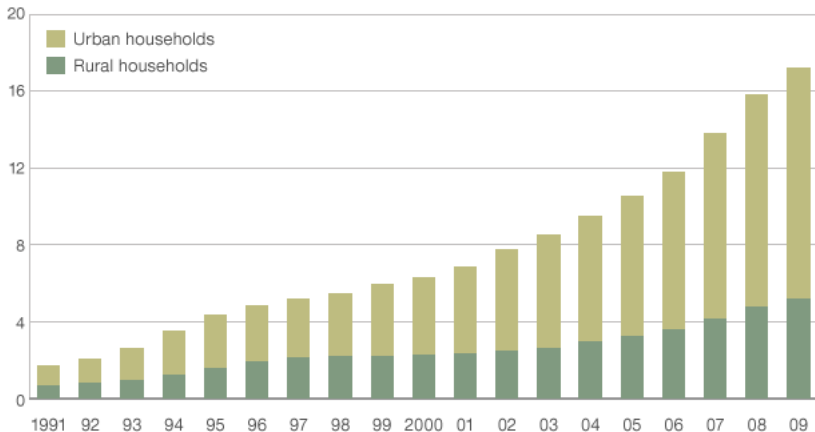## Predictors of the decline in US happiness

The predicted negative impact of:

- social comparisons;
- decline of relational goods;
- decline of trust in institutions.

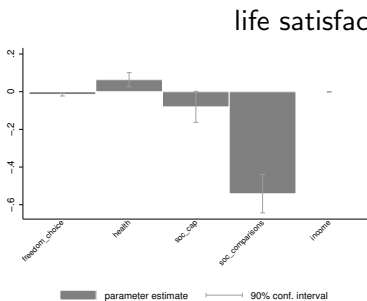more than offset the predicted positive impact of the increase in income.

Annual disposable income - urban and rural households

RMB yuan 000s

Legend:
- Urban households
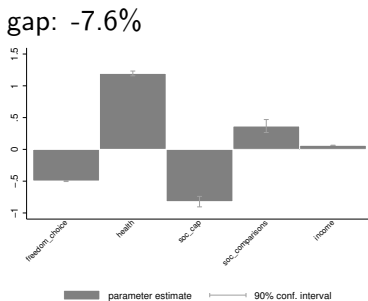- Rural households

Source: Starmass.

The gap between 1990 and 2006
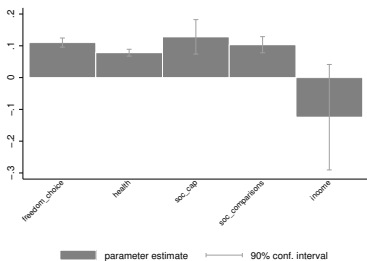

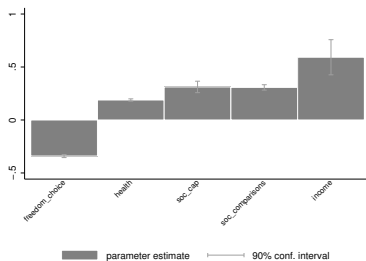(c) Endowments = 84.2%   (d) Preferences = 15.8%

Source: Sarracino and Bartolini, forthcoming, WVS data.

Decomposing Brazilian SWB

life satisfaction gap: $+2\%$

(e) Endowments $= 158\%$

(f) Preferences $= -58\%$

Source: Sarracino, forthcoming, WVS data.

Three measures of well-being

Well-being can be proxied by:

- happiness
- life satisfaction
- objective data: mental illnesses, suicides, alcoholism, drugs abuse, psychopharmaca, etc.

Happiness and life satisfaction are called subjective well-being (SWB)

- **Subjective well-being** (SWB): individual's evaluation of its own life regarded as a whole (Helliwell, 2008)

Observing SWB (World Values Survey)

Happiness:

"Taking all things together, would you say you are:"

1. "very happy"
2. "quite happy"
3. "not very happy"
4. "not at all happy"

Observing SWB (World Values Survey)

Happiness:

"Taking all things together, would you say you are:"

1 "very happy"

2 "quite happy"

3 "not very happy"

4 "not at all happy"

Life satisfaction:

"All things considered, how satisfied are you with your life as a whole these days?" Answers range on a 1 to 10 points scale:

1 "dissatisfied"
  ⋮
10 "satisfied"

Reliability of SWB

Reliability
---

data on SWB are:

- consistent with more objective measures of well-being (heart rate, blood pressure, Duchenne smile, brain scanners, suicide) (Blanchflower and Oswald, 2008a; Van Reekum et al., 2007);

- highly correlated with other proxies of SWB (Schwarz and Strack, 1999; Wanous and Hudy, 2001; Schimmack et al., 2009);

- consistent with evaluations about the respondent's happiness provided by friends, relatives or clinical experts (Schneider and Schimmack, 2009; Kahneman and Krueger, 2006; Layard, 2005).

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