**Measurement of quality of life and well being in France:
The drivers for subjective well being**

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Abstracts

Ever since the publication of the Stiglitz Report, France has been heavily involved in the measurement of Well-Being. The French Statistical Institute (INSEE) has expanded the scope of its existing surveys. It has also launched an innovative experimental one. This survey aims to explore for the first time drawing upon a single statistical source, the different dimensions of both objective and subjective Quality of Life, as highlighted in the Stiglitz Report. It allows us to study, at the individual level, correlations between these dimensions and the accumulation of deprivations. It has enabled us to better understand the links between determinants generally referred to as objective dimensions of Quality of Life (such as health, education) and subjective well-being. This information is of paramount importance for policy makers who cannot act directly on the level of people's satisfaction but can only act upon the levers of objective dimensions. This paper presents the main findings of the experimental survey. As has often been shown in previous studies, this survey finds that life satisfaction increases with the standard of living, but the gains become smaller at the top of the distribution. It also shows that, when the various dimensions of Quality of Life are taken into account to explain the perceived level of Well-Being, income has a lower explanatory power. Weak social ties or the stress of everyday life play at least as much a role as limited financial resources do. Deprivations in health and housing, and physical and economic insecurity then follow. For the first time in France, this survey has allowed us to assess the impact of psycho-social risks in the workplace. It appears that professional stress only adds to the stress at home instead of substituting for it. Its impact is comparable to physical health problems. The survey also shows that the other components of Quality of Life do not impact the level of satisfaction in the same way. It is the weakness of social ties that is the most often associated with the risk of being dissatisfied, while it is the stress in everyday life, at the upper end of the scale, which reduces more the odds of declaring a high level of subjective Well Being. Panel data analyses indicate that a causal effect seems to exist between objective conditions of Quality of Life and Well-Being; that all of this is not only the expression of intrinsic differences between individuals.

Keywords: well being, quality of life, Stiglitz-Sen-Fitoussi Report, Drivers for subjective well being

1. New surveys to measure people's well-being

The French national statistical institute, INSEE, has been heavily involved in implementing the recommendations of the Stiglitz report. Many objective indicators, that belong to the multidimensional framework recommended by the Stiglitz report, can be calculated with data from existing surveys, such as the European Statistics on Income and Living Conditions (EU-SILC) and the French Safety Surveys. However in order to shed light on subjective well-being, from 2010 onwards, one specific survey and several experimental modules added to existing surveys were conducted.

First, Insee has added some new questions to the French version of the European survey on living conditions (EU-SILC) (Albouy, Godefroy and Lollivier (2010)). These questions aim at assessing global satisfaction on a scale from 0 to 10 and relate to the following five items: dwellings, job security (if employed), leisure, relations with close relatives, global satisfaction drawn from current life. A self administrated questionnaire for a subset of households has also been introduced on subjective well-being. It provides information on feelings about the future, attitudes toward risk and comparisons with other people. It presents also short scenarios for calibrating responses and better understanding people's opinions.

Second, in the 2009 French Time Use Survey, for a subset of households, questions were introduced to grade the quality of time spent on each activity of the respondent's ten-minute interval diary, on a scale from -3 to +3 (Ricroch (2011)). They have to indicate if the time spent was enjoyable or not, taking into account the activity itself but also the context. Questions are posed about the use of time in order to understand whether people are short of time and thus need to reduce their sleeping time, or on the contrary have free time and do not know what to do with it.

In addition, INSEE has also launched in 2011 an innovative experimental survey, which aims at exploring, in a single statistical source, the different dimensions of both objective and subjective Quality of Life as highlighted in the Stiglitz Report (Amiel, Godefroy and Lollivier (2012)). It allows statisticians to study, for the first time at the individual level, the accumulation of deprivations. More importantly, it also facilitates a better understanding of the links between objective determinants of Quality of Life (such as health, education or marital status) and subjective well-being. The first results were published in 2012.

2. First results

This new specific survey on quality of life has found that many factors can affect people's quality of life, but all these elements can be grouped into three categories.

Figue 1: Links between quality of life indicators

Scope: Metropolitan France.
Source: INSEE, Quality of Life survey 2011.
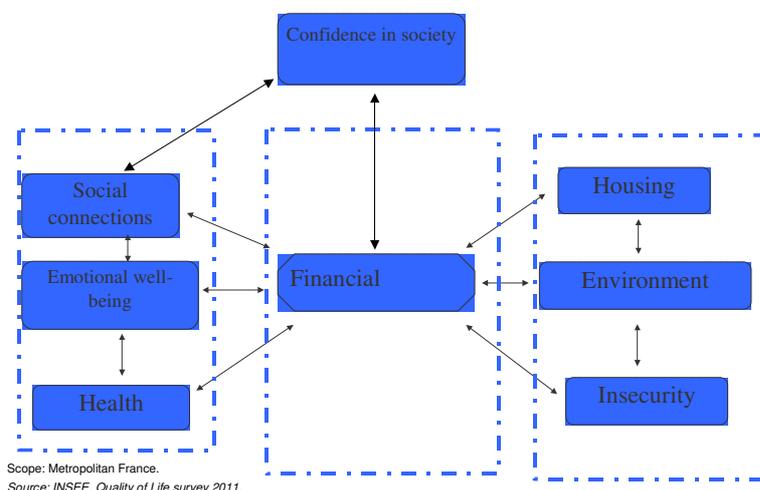
Poor housing conditions, economic and physical insecurity and poor quality of the environment are dimensions of quality of life which are often correlated. Indeed, people with poor housing conditions live more often than the others in a degraded environment. On the other hand, physical health, social connections and emotional well being are often correlated. Between these two categories, financial contraints play

a key role in the sense that it is correlated with everything else. People facing financial problems have more often than the others problems regarding the other dimensions of quality of life. Finally, confidence in society is slightly correlated with social connections and financial easiness. Nevertheless, it differs from these two blocks and constitutes a full dimension of the quality of life.

This survey, as examined in the French version of the European survey on living conditions, has also found how different sub-populations are affected by poor living conditions. People with the lowest living standard are more at risk of accumulating disavantages in most of the other dimensions of quality of life. Nevertheless, the association of financial situation with living conditions is not systematic. The young people are more vulnerable to housing difficulties while the 45 to 64 age group are more exposed to poor social connections and insecurities and the older people with health problems.

Figure 2: The dimension of quality of life

*By income per consumption unit*   *By age*
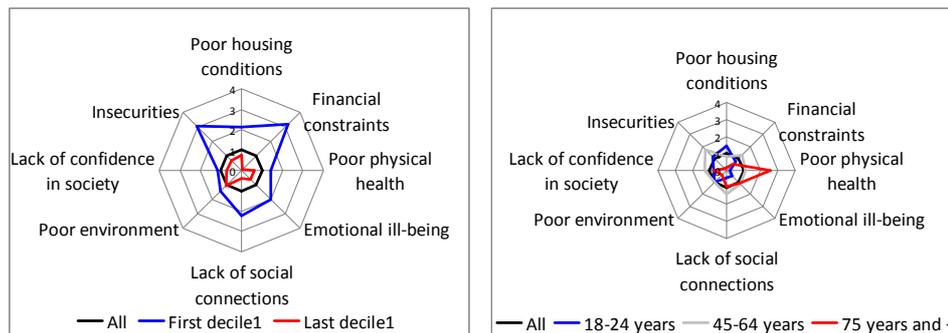
Understanding the graph: each spoke on the radar represents one of the dimensions of the quality of life. The further outwards you move along the line, the greater the difficulties in the dimension in question. The first graph shows average quality of life per income: the people in the first decile of income per consumption unit are 2.1 times more in difficulty in housing than the average for all peoples.

Adults living alone with children have a worse quality of life with regards to most of the components, apart from physical health. They are particularly vulnerable to insecurities and stress in daily life. They face housing difficulties, financial constraints and a lack of social connections as often as adults living alone. Finally, people of modest means living in urban areas are the ones who cumulate most often difficulties in the different dimensions of quality of life. These results are rather intuitive; however, such a simultaneous analysis of most of the quality of life components, measured at the individual level through a same survey, had never been carried out before for France.

This new survey has also found that life satisfaction increases with the standard of living; but the gains become smaller at the top of the distribution.

Figure 3: Average life satisfaction by living standart
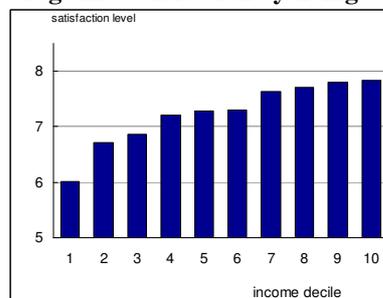
Source: Insee, 2010 SRCV/SILC survey

It has also showed that monetary and financial constraints and material deprivations are important to explain the low level of satisfaction. But when it comes to explaining higher levels of satisfaction, other factors of Quality of Life, such as weak social and family ties or stress in everyday life, happen to play as much or even greater role than financial constraints. These factors are followed by difficulties in health, housing and physical and economic insecurity. Surprisingly, poor environmental conditions do not seem to have an effect on perceived well-being, nor do the perceived tensions within society. Lastly, people exposed to psycho-social risks at work are among those who more frequently report a lower global satisfaction.

Finally, the 2009 French Time Use Survey has found that the consideration of the context in which an activity is carried out is a crucial element in its appraisal: the same person may rank the same activity differently. For example, making a journey alone is disagreeable while making a journey with company is much more enjoyable. And of course a bit of sunshine really can brighten up your day.

3. Methodological lessons

INSEE has already begun to draw some lessons from these experimental initiatives.

First, whereas it was recommended by the Stiglitz report, summarizing physical and economic insecurity into a single indicator does not seem to make sense. A tentative synthetic indicator was based on questions dealing with the amount of crime in the neighborhood, the fact of being unemployed and the risk of losing one's job. In the end, it appears that there is no overall consistency between perceived crime and job insecurity as far as a sociodemographic profile of the disadvantaged is concerned, nor is there between any of the three above factors taken together. This experimental survey tends to show that, in the future, it would be preferable to split this synthetic indicator into two sub-indicators, one covering physical insecurity, and the other economic insecurity. Therefore, in a future survey, more relevant questions should be asked for both dimensions, so that two convincing synthetic indicators can be constructed, one for each sub-component.

Second, INSEE intends to update regularly these new indicators of quality of life in order to build time series. Such time series are necessary for policy makers not only to obtain a measurement of the evolution of quality of life in our society, but also to assess causality links. For instance, the links observed between the degree of social ties and global life satisfaction can a priori either reflect causal effects or, more simply, long lasting differences between individuals. Global life satisfaction depends on objective circumstances (specific facts) but also, in part, with respondent's personality traits such as risk aversion, preference for present and optimism.To address these questions of heterogeity between individuals, same people have to be followed over time, in order to see whether, for instance, sudden isolation for a given individual really results in a reduction in his well-being. Such investigations are made possible with the use of panel data collected through the French version of European survey on living conditions (EU-Silc). The first studies tend to show that the link between social ties and level of life-satisfaction is a causal link indeed.This information is of paramount importance for policy makers who cannot act directly on the level of people's satisfaction but can only act upon the drivers of objective Quality of Life.

Other measurement errors can gravely undermine the collection of subjective well-being indicators. They are future statistical challenges for Insee. For instance, as each respondent has a personal interpretation of responses scales, the scales to evaluate global satisfaction may not be used identically by everyone to say the same thing (Van Soest 2007). This kind of errors will be corrected with the information

collected in the self administrated questionnaire added to the French version of the European survey on living conditions (EU-SILC). It presents short fictitious scenarios for calibrating responses and better understanding people's opinions.

Other measurement errors can undermine the measurement of subjective well being and will require further statistical treatements. For instance, reponses may be biased by temporary vexations or, on the contrary, the recent fulfillment of personal wishes. Second, reponses can vary with the weather (Ricroch (2011)) and the survey timing. Thirdly, the position of questions in the questionnaire, for example at the start or at the end may influence answers to subjective questions (Clark and Vicard, 2007).

4. An implementation at the European level Conclusions

These French pioneering initiatives are of the greatest importance for statisticians. Eurostat has decided to implement a new module measuring global life satisfaction in the 2013 European survey on living conditions (EU-SILC) module of EU-SILC similar to the French module. This initiative will enable European statisticians to publish in 2014 harmonized European-wide statistics on subjective well-being as recommended by the Stiglitz Report.

References

Albouy V., Godefroy P and Lollivier S.(2010) "Measuring quality of life", *Insee Références France, portrait social*

Amiel M. H., Godefroy P. and Lollivier S (2013) "Quality of life and well-being often go hand in hand" *Insee Premiere n° 1428*

Amiel M.H., Godefroy P.and Lollivier S. (2012) « Low income city-dwellers accumulate the most difficulties in terms of quality of life », *Insee Références France, portrait social,*

Clark A and Vicard A. (2007), "Conditions de collection et santé subjective: une analyse sur données européennes", *Insee, Economie et Statistique, n°403-404*

Godefroy P.(2011) "Life satisfaction: French people give themselves an average score of 7 out of 10", *Insee Références France, portrait socia,*

Insee Web site:
http://www.insee.fr/en/publications-et-services/default.asp?page=dossiers_web/stiglitz/performance_eco.htm

Ricroch L.(2011) "The enjoyable moments of day to day life", *Insee Premiere n° 1378,*

Van Soest A (2007), "Enhancing comparability of cocio-economic measures using anchoring vignettes: state of the art" *Tiburg University*

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