Journal of Financial Stability 11 (2014) 82–91

Contents lists available at ScienceDirect

Journal of Financial Stability

journal homepage: www.elsevier.com/locate/jfstabil

Financial imbalances and household welfare: Empirical evidence from the EU

Livio Stracca

European Central Bank, Kaiserstrasse 29, 60311 Frankfurt am Main, Germany

ARTICLE INFO

Article history:
Received 19 July 2012
Received in revised form 20 February 2013
Accepted 3 December 2013
Available online 21 December 2013

JEL classification:
E6

Keywords:
Eurobarometer
Life satisfaction
Consumer confidence
Financial stability
Central bank

ABSTRACT

This paper uses Eurobarometer survey data from 26 EU countries to evaluate whether the general public cares about financial stability and imbalances over and above their effects on macroeconomic variables such as unemployment and inflation. I confirm previous results in the literature that life satisfaction – a widely used measure of household welfare – negatively depends on the unemployment rate. In addition to previous results in the literature, I establish a strong empirical link between life satisfaction and consumer confidence as measured by the European Commission consumer survey. The main result of the paper is that life satisfaction generally does not systematically depend on a number of measures of financial imbalance based on credit and asset prices once the other macroeconomic controls are included.

1. Introduction

In the wake of the global financial crisis many jurisdictions are equipping themselves with authorities explicitly in charge of protecting financial stability at the systemic level, and central banks are typically heavily involved in the setting of macro-prudential policies. According to many observers, financial stability should become a key objective for central banks alongside price stability. Central bank mandates are ultimately based on the support by citizens, as it should be in every democracy. The attribution of a macro-prudential function to central banks should ideally be based on the public's preference for financial stability, independent of, and in addition to, the important role that financial stability plays to preserve price stability and sustainable economic growth.

Does the general public care about financial imbalances? Is there a trade-off between price and financial stability if the objectives of policy are to maximise household welfare? One way to address this question is to trust the working of the political system. If elected and accountable representatives of the people decide that financial stability should be an explicit and independent objective of economic policy (and possibly of central banks), then the decision should have a high degree of democratic legitimacy and ultimately reflect citizens' preferences. The alternative, as suggested by Di Tella and MacCulloch (2007), is to use quantitative measures of citizens' welfare and investigate the link between those and the objectives of economic policy, in order to understand their true desirability. This is the route also taken in this paper.

In particular, the main objective of this paper is to study the effect of a number of financial imbalance measures on life satisfaction at country level. Do booms and busts in credit and asset prices at national level impinge on aggregate measures of wellbeing?

There is already a substantial literature based on quantitative measures of subjective wellbeing such as life satisfaction and happiness (see, among others, Clark et al., 2007; Di Tella and MacCulloch, 2006; Kahneman and Krueger, 2006). Whether quantitative measures of subjective well-being truly measure utility is certainly an open question, especially given that utility itself is a more complex concept than most economists normally care to recognise (Kahneman and Krueger, 2006). It is therefore not at all un-controversial that life satisfaction (or any other measure of subjective well being) is the best target for economic policy (Di Tella and MacCulloch, 2007). Moreover, life satisfaction is not the same as happiness, though it is correlated with it; it measures mainly a cognitive evaluation of distance from aspirations (Bruni and Porta, 2007). As in Di Tella et al. (2003), in this paper I focus on life satisfaction as a measure of subjective wellbeing (as opposed to alternative measures such as reported happiness) mainly owing to the longer data availability in the European Commission's Eurobarometer

E-mail address: livio.stracca@ecb.int

1572-3089/$ – see front matter
http://dx.doi.org/10.1016/j.jfs.2013.12.001

survey. In addition, life satisfaction like other measures of subjective well-being correlates with other objective measures of wellbeing (such as health) and is a legitimate way at least to *start* investigating the question of the impact of economic policies on people's welfare. In addition, a policy which makes citizens unhappy and unsatisfied with life will not only probably be suboptimal, but also ultimately lead to the removal of the policy-maker responsible for it, at least if the policy maker is under the direct control of the public (which may be less the case for central bankers in the short term, of course).[1] Finally, note that the empirical model being estimated contains country fixed effects, which implies that average differences across EU countries (e.g. due to different interpretations of the Eurobarometer questions across cultures) ought to be controlled for. Nonetheless, it should be noted that the results in this paper do depend on the particular choice of the subjective well-being measure, i.e. life satisfaction, and may not necessarily extend to other, equally plausible measures.

The empirical analysis is based on data on life satisfaction from the European Commission's Eurobarometer survey. Because I am interested in investigating the effect of financial stability on the population as a whole and do not aim to understand the role of personal characteristics such as demographics; I therefore use *country-level* data from 1973 to 2011 in 26 EU countries (all EU countries excluding Malta) where the left-hand side variable is essentially the share of the respondents who are satisfied with their life. From the standpoint of a policy maker, maximising the number of people who are satisfied with their life is a legitimate objective which may also contribute, at least for policy makers who are subject to the political cycle, to being re-elected and remaining in power. The EU is a very interesting source of data for financial stability as experiences have been very heterogeneous in different countries. House prices, for example, have experienced booms and busts in countries such as Ireland or Spain but have remained almost unchanged in others, such as Germany and Austria. This wide array of experience should give us some idea of whether financial imbalances affect citizens' welfare as measured by reported life satisfaction. Clearly, using country-level data also has significant downsides because it does not allow to study heterogeneity and the role of personal characteristics. For example, being a homeowner or not might matter quite a lot in influencing the effect of changes in house prices on household welfare, though it should be noted that information on home ownership is not contained in the Eurobarometer survey. Extending the empirical work of this paper to individual-level data could therefore be a useful avenue of future research.[2]

From a conceptual point of view, the analysis of the impact of financial stability on household welfare is more complex than the analysis of the effect of inflation and unemployment on the same variable. While we know how to measure price stability and output growth stability, financial stability and imbalances still remain largely qualitative concepts. Moreover, the channels through which financial stability may affect citizens' welfare are potentially complex and indeed at least four transmission channels may be envisaged. First, financial stability affects output and price stability, and this may in turn influence people's happiness directly (say, some citizens lose their job, empirically a big drag on life satisfaction) or indirectly (a worse macroeconomic environment raises fear). Second, life satisfaction may be correlated with "animal spirits", i.e. trends in optimism and pessimism about the future (see in particular Barsky and Sims, 2012), and optimism may in turn affect asset prices, credit and financial stability. This raises a chicken-and-egg problem since the direction of causality is not clear in this nexus (more satisfied people are more optimistic, but more optimism also leads to higher life satisfaction). Third, let us assume that financial imbalances can be characterised by a distortion in the inter-temporal price of assets and of credit (say, too cheap or too expensive compared with the fundamentals). This may have a direct impact on the utility of individuals since, for example, house prices may be too high or credit conditions too tight exactly when, say, young people need to buy a new property and take on a mortgage. Excessively high house prices therefore have very different implications for current homeowners, prospective homeowners and renters. Since these distortions have largely a distributional effect (some people benefit, other people lose out) it will be important, from a general point of view, to understand their net effect on the population as a whole. Finally, financial instability and imbalances may result in the disruption of the provision of financial services that is an essential utility in a modern economy and which may therefore affect welfare. In this paper, I build possible measures of financial imbalances based on estimated measures of boom and bust in asset prices and mortgage credit as well as measures capturing the health of the banking sector and the presence or not of a banking crisis. An important problem associated to many of these measures is that it is not clear whether, say, a positive imbalance is a good or a bad in the same way as it is possible to state for variables such as the unemployment rate and inflation.

One novel element of this paper is the use of consumer confidence data drawn from the European Commission's consumer survey in the context of the analysis of life satisfaction trends. To the author's knowledge, there is no evidence so far in the literature on the link between life satisfaction or happiness and confidence. I find that life satisfaction and confidence are very strongly correlated, which is interesting and reassuring for the quality of both indicators, which come from separate surveys. Moreover, I find that life satisfaction is more correlated with those components of the consumer confidence survey which have to do with respondents' own situation and prospect, and less so (but still positively and significantly) with variables related to consumers' views on the overall economic situation. Given that some of the questions in the consumers survey are directly aimed at measuring expectations about the future, I use these variables in order to try and rule out an association between life satisfaction and financial imbalances which is actually driven by a third factor (optimism).

This paper is also related to the literature on the welfare costs of macroeconomic fluctuations (Lucas, 2003) but this literature is generally focused on the standard macroeconomic variables such as inflation and unemployment. Chauvin et al. (2011) estimate the welfare cost of asset bubbles (an inter-temporal price distortion) and find that the order of magnitude crucially depends on the degree of heterogeneity in agents' exposure to the assets. If the heterogeneity is sufficiently high, asset price bubbles have a first-order effect (defined as the quantity of permanent consumption that a social planner would forego to eliminate bubbles) on household welfare. The analysis by Chauvin et al. is based on a calibration, while in this paper the question is addressed using real data on citizens' life satisfaction and empirical measures of asset price misalignment.

Before looking at the effects of financial imbalance measures, I look at the effect of standard macro variables similar to Di Tella et al. (2003) but with a longer sample period. I find the unemployment rate and real GDP growth to matter (respectively with a negative

[1] An interesting extension of this work would be to evaluate whether measures of life satisfaction have an impact on citizens' voting behaviour and whether the reaction of life satisfaction to certain economic policies correlates with the probability of the government being re-elected.

[2] Also note that with country-level data it is not possible to evaluate the impact of the macroeconomy on the own vs. the general situation as done in Di Tella et al. (2003). However, this distinction is not important in their calculation of the trade-off index between inflation and unemployment.