Who wants price stability?

Beja, Edsel Jr.

Ateneo de Manila University

21 May 2012

Who wants price stability?

EDSEL L. BEJA JR.*

Abstract

The paper uses the "subjective well-being as input" framework to examine how life satisfaction and other life circumstances might affect the consideration of price stability. Results show that people who experience negative or adverse situations are more likely to attend to negative matters like rising prices, which implies price instability; those who experience positive or favorable situations are likely to worry less about price stability.

Keywords: Price stability; preference; subjective well-being

JEL Codes: E31; I31

1. Introduction

That rising prices would adversely affect human welfare is well understood. That rising prices could induce dissatisfaction and resentment and eventually trigger demands for regime change is a haunting thought.

This paper revisits the impression that thinking about rising prices is a normal activity in everyday life. It specifically includes "subjective well-being" (SWB) along with the other indicators of life

* E. L. Beja Jr.
Department of Economics, Ateneo de Manila University, Quezon City 1108, Philippines
E-mail address: edsel.beja@gmail.com

circumstances in the analysis.[1] The innovation introduced in this paper springs from a conjecture that people with high SWB tend to worry less about personal or social problems (c.f., Veenhoven 1991). Of course, what people see as relevant or important to them is also affected by their life circumstances. Thus, the question here is, "*Do happy people see price stability as an important goal?"* Part 2 discusses the methodology and Part 3 presents the results. The last part concludes.

2. Methodology

The framework in this paper is called "SWB as input," which states $Y = F(X, SWB)$, where Y is a state, output, or decision; X represents other explanatory variables. Both X and $SWB \rightarrow Y$ but not $Y \rightarrow SWB$ and/or X.[2] Given the setup, the effects of X and SWB on Y are, respectively, F_X and F_{SWB}.[3] The variables in the framework are explained next.

For the purpose of this paper, Y represents the replies to the question: "*If you had to choose, which one [of these] would you say is most important?"* One response-option is "fighting rising prices" and the others relate to the political issues of maintaining public order, participation in government decisions, and freedom of speech. The political issues are taken as separable from the economic issue of price stability. For analysis, Y assumes a dummy variable that takes the value of 1 for "fighting rising prices" and 0 otherwise. Here, the notion "fighting rising prices" implies "price instability."

---

[1] Diener (1984, 1999) and Kahneman et al. (1999) discuss the concepts in "subjective well-being."

[2] Endogeneity is a non-issue if the indicators used in the analysis are of different levels, say, macro and micro variables. In addition, the "SWB as input" framework is different from that in, say, Di Tell et al. (2001) who examine $SWB = F(X, Y)$.

[3] If analysis is done across time, then $SWB \rightarrow X$ and/or $X \rightarrow SWB$ may be relevant. As such, the framework can be modified as follows: $Y = F[SWB(X), \mathbf{X})]$ and $Y = F[SWB, X(SWB)]$. Thus, the effect of X on Y is $F_X + F_{SWB}$ (dSWB/dX) and that of SWB on Y is $F_{SWB} + F_X$ (dSWB/dX).

SWB means the consideration of one's own state of being at a point in time.[4] The extant literature suggests that *SWB* is comprised of separable and independently measurable components, namely: affect and judgment. Affect is either positive or negative emotion. Their ratio is sometimes used as proxy for short-term *SWB*. Judgment is an assessment like life satisfaction, which is often used as proxy for long-term *SWB*. The relative stability of life satisfaction makes it a useful indicator for regression analysis.

Here, *SWB* is limited to the self-report on life satisfaction: "*How satisfied are you with your life as a whole these days?"* Responses take an integer value between 1 (completely dissatisfied) and 10 (completely satisfied). For the analysis, two consecutive values are merged to form quintiles. Using the lowest quintile as the reference state, the second to the fifth quintiles take the respective value of 1 and 0 otherwise.

X represents other explanatory variables. The first set of variables if for individual profile. Age is indicated in years. Gender is coded 1 for male and 0 otherwise. For marital status, the reference is married state; thus, ex-married (divorced or separated) takes the value of 1 and 0 otherwise; widowed is 1 and 0 otherwise; and single is 1 and 0 otherwise. Educational attainment takes "no or limited education" as the reference status; thus, the value of 1 for complete primary education and 0 otherwise; 1 for complete secondary education and 0 otherwise; and 1 for complete tertiary education and 0 otherwise. For job status, the reference state is employed; thus, the value of 1 for unemployed and 0 otherwise; and 1 for "not in the labor force" and 0 otherwise. Income class is the self-assessment of own household's overall income standing and takes the integer value from

[4] *SWB* is a rendition of the "true" internal state of being (SWB*); or, algebraically, $SWB = h[H(\cdot)]$, where $H(\cdot)$ is *SWB** and $SWB_2 > SWB_1$ if $H_2(\cdot) > H_1(\cdot)$ when the state of being in situation $i+1$ is higher than in situation i. Such rendition is not perfect for various reasons; that is, $SWB^* - SWB = e$, where e is an error term, but a sufficiently large number of observations can overcome the problem (i.e., $SWB \equiv SWB^*$). For these arguments to hold, the assumption of cardinal SWB is necessary.

1 (i.e., lowest) to 10 (i.e., highest). For the analysis, two consecutive values are compressed to form quintiles with the lowest quintile as the reference state. For income class, the second to the fifth income quintiles take the value of 1 and 0 otherwise. Lastly, only one indicator for aggregate profile is used in order to minimize estimation problems.

The other set of explanatory variables in X are for aggregate profile. The 5-year average of Gross Domestic Product (GDP) per capita in constant US dollars is introduced as the only control for possible idiosyncrasies within the country groupings.

Analysis is done by means of probit regression on the structural model, $E(Y=1|X) = P(Y = 1|X) = \alpha + \beta_i x_i + \delta SWB + \varphi GDP + e$. Thus, $F_{SWB} = \partial E(Y=1|X_i, SWB)/\partial SWB$ and $F_{Xi} = \partial E(Y=1|X_i, SWB)/\partial X$. Except for *GDP*, which is from the *World Development Indicators* database, the rest of the information is from the *World Values Surveys* database. The dataset is first organized into three groups representing the upper-income, middle-income, and low-income countries, then the regression analysis is done on each group. Given the limitations of the dataset, the proposition $SWB \rightarrow X$ and/or $X \rightarrow SWB$ are not tested. Still, results are useful for interpretation.

3. Results

Tables 1 to 3 present the regression results. Shown on the right-most column of each table are the effects of X and SWB on Y, respectively, calculated as the percentage change on the probability of choosing "fighting rising prices" as the most important goal.

Notice that the dissolution of marriage due to death and not having a regular job make a person think more about price stability and naturally so because these states mean reduced or lost income source. Rising prices would therefore be an undesirable thought. In the case of dissolution due to

divorce or separation, perhaps, the pain and problems associated with the experience override the consideration of price stability. Lastly, there is evidence that people with low *SWB* especially in low-income countries tend to focus on the negative aspects of life; in the context of this paper, they attend more on price stability.

High educational attainment, high financial capacity, and high life satisfaction could translate as a reduced consideration of price stability. First, results on educational attainment are consistent with the idea that people who have completed at least basic schooling are appreciate the workings of the market better than those who do not possess adequate schooling. In the context of this paper, the former is not likely to see rising prices as harmful or problematic. Second, it is straightforward to infer from the tables that people who are relatively financially well off worry less about rising prices. Lastly, people who report high life satisfaction appreciate the positive aspects of their lives and society in general (c.f., Isen et al. 1978; Bower 1981; Hirt et al. 1996); thus, they worry less about rising prices.

4. Conclusion

The paper used the "SWB as input" framework to examine how life satisfaction and other life circumstances affect the consideration of price stability. Results show that people who experience negative or adverse situations are more likely to attend to rising prices or price instability, while those who experience positive or favorable situations tend to worry less about price stability.

What do the findings imply for public policy? First, when people indicate that price stability is an important goal or issue then it must be so. Second, policy-makers need to be on the look out from being misled because there are people who do not see price stability as an important goal because their interest might lie elsewhere. The challenge is to make sure that public policy is responsive,

flexible, and inclusive in order that, in the case of this paper, price stability is achieved and benefit all regardless of their subjective well-being and life circumstances.

References

Bower, G., 1981, Mood and memory, *American Psychologist*, 36(2), 129-148

Di Tella, R., MacCulloch, R., Oswald, A., 2001, Preferences of inflation and unemployment: Evidence from surveys of happiness, *American Economic Review*, 91(1), 335-341

Diener, E., 1984, Subjective well-being, *Psychological Bulletin*, 95(2), 542-575

Diener, E., Suh, E., Lucas, R., Smith, H., 1999, Subjective well-being: Three decades of progress, *Psychological Bulletin*, 125(2), 276-302

Hirt, E., Melton, R., McDonald, H., Harackiewicz, J., 1996, Processing goals, task interest, and the mood-performance relationship: A mediational analysis, *Journal of Personality and Social Psychology*, 71(2), 245-261

Isen, A., Shalker, T., Clark, M., Karp, L. ,1978, Affect, accessibility of material in memory, and behavior: A cognitive loop?, *Journal of Personality and Social Psychology*, 36(1), 1-12

Kahneman, D., Wakker, P., Sarin R., 1997, Back to Bentham? Explorations on experienced utility, *Quarterly Journal of Economics*, 112(2), 375-405

Veenhoven, R., 1991, The utility of happiness, *Social Indicators Research*, 20(4), 333-354

Table 1
Probit regression for upper-income countries

Dependent	Mean	Indicator	Coefficient	Slope	p-value	%Change
Fighting rising Prices	0.2105	Ex-married	-0.0765	-0.0204	**	-9.7
		Widowed	0.0880	0.0249	**	11.9
		Single	-0.0607	-0.0164	**	-7.8
		Male	-0.1042	-0.0285	***	-13.6
		Age	0.0122	0.0033	***	1.6
		Age-square	-0.0002	-0.0001	***	0.0
		Education-1	-0.2475	-0.0645	***	-30.7
		Education-2	-0.3832	-0.1040	***	-49.4
		Education-3	-0.5386	-0.1274	***	-60.5
		Unemployed	0.1483	0.0430	***	20.4
		Not in labor force	0.0963	0.0267	***	12.7
		Income quintile-1	0.0578	0.0161	**	7.6
		Income quintile-2	0.0106	0.0029		
		Income quintile-3	-0.1379	-0.0363	***	-17.2
		Income quintile-4	-0.4716	-0.1079	***	-51.2
		Life satisfaction-1	-0.0994	-0.0262		
		Life satisfaction-2	-0.1447	-0.0381	**	-18.1
		Life satisfaction-3	-0.3438	-0.0942	***	-44.8
		Life satisfaction-4	-0.4314	-0.1072	***	-51.0
		GDP per capita	0.0000	0.0000	***	0.0

Notes:

1. Robust standard errors; p-values: *** = 0.01, ** = 0.05, * = 0.10. Constant term not reported.

2. Countries are Australia, Canada, Finland, Germany, Italy, Japan, France, Netherlands, New Zealand, Norway, South Korea, Spain, Sweden, Switzerland, Taiwan, United Kingdom, United States; n = 20,712

Table 2
Probit regression for middle-income countries

Dependent	Mean	Indicator	Coefficient	Slope	p-value	%Change
Fighting rising Prices	0.2838	Ex-married	-0.0481	-0.0159		
		Widowed	0.1555	0.0540	***	19.0
		Single	-0.1496	-0.0489	***	-17.2
		Male	-0.0643	-0.0215	***	-7.6
		Age	0.0150	0.0050	***	1.8
		Age-square	-0.0002	-0.0001	***	0.0
		Education-1	-0.2598	-0.0839	***	-29.6
		Education-2	-0.2944	-0.0969	***	-34.1
		Education-3	-0.4772	-0.1414	***	-49.8
		Unemployed	0.0572	0.0194	**	6.8
		Not in labor force	0.1555	0.0526	***	18.5
		Income quintile-1	0.0688	0.0232	***	8.2
		Income quintile-2	0.0321	0.0108		
		Income quintile-3	-0.0877	-0.0287	***	-10.1
		Income quintile-4	-0.1343	-0.0433	***	-15.2
		Life satisfaction-1	0.0141	0.0048		
		Life satisfaction-2	-0.1875	-0.0607	***	-21.4
		Life satisfaction-3	-0.2402	-0.0784	***	-27.6
		Life satisfaction-4	-0.3173	-0.1015	***	-35.7
		GDP per capita	-0.0001	0.0000	***	0.0

Notes:

1. Robust standard errors; p-values: *** = 0.01, ** = 0.05, * = 0.10. Constant term not reported.
2. Countries are Argentina, Brazil, Bulgaria, Chile, China, Colombia, Egypt, Georgia, Guatemala, Malaysia, Mexico, Peru, Philippines, Poland, Romania, South Africa, Russian Federation, Thailand, Turkey, Ukraine, Uruguay, Venezuela; n = 33,789

Table 3
Probit regression for low-income countries

Dependent	Mean	Indicator	Coefficient	Slope	p-value	%Change
Fighting rising Prices	0.2571	Ex-married	0.0394	0.0127		
		Widowed	-0.0109	-0.0035		
		Single	-0.0425	-0.0135	*	-5.2
		Male	-0.0889	-0.0284	***	-11.0
		Age	0.0045	0.0014		
		Age-square	-0.0001	0.0000	**	0.0
		Education-1	-0.2625	-0.0809	***	-31.5
		Education-2	-0.2644	-0.0815	***	-31.7
		Education-3	-0.3950	-0.1111	***	-43.2
		Unemployed	0.0249	0.0080		
		Not in labor force	0.0051	0.0016		
		Income quintile-1	0.0048	0.0015		
		Income quintile-2	-0.1392	-0.0435	***	-16.9
		Income quintile-3	-0.1583	-0.0485	***	-18.9
		Income quintile-4	-0.1042	-0.0321	*	-12.5
		Life satisfaction-1	0.2118	0.0707	***	27.5
		Life satisfaction-2	0.1002	0.0323	***	12.6
		Life satisfaction-3	-0.0015	-0.0005		
		Life satisfaction-4	-0.1820	-0.0555	***	-21.6
		GDP per capita	0.0001	0.0000	**	0.0

Notes:

1. Robust standard errors; p-values: *** = 0.01, ** = 0.05, * = 0.10. Constant term not reported.
2. Countries are Bangladesh, Burkina Faso, Ethiopia, Ghana, India, Indonesia, Mali, Nigeria, Pakistan, Rwanda, Tanzania, Uganda, Vietnam, Zambia, Zimbabwe; n = 22,344.