How Large Is the Housing Wealth Effect? A New Approach* Table Template

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Abstract

We propose a new methodology to estimate the effect of housing wealth fluctuations on consumption expenditure. Our approach exploits the sluggishness of consumption growth. We find that the immediate (next-quarter) marginal propensity to consume from a $1 change in housing wealth is about 2 cents and the final long-run effect 9 cents. Consistent with most studies, the housing wealth effect is substantially higher than the effect of stock wealth on consumption. We argue that, compared to the currently widespread cointegration-based methods, our approach (i) has sounder theoretical foundations and (ii) is better suited for an environment with structural instability.

Keywords: housing wealth, wealth effect, consumption dynamics, asset price bubbles

JEL classification: E21, E32, C22

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Table 1: Short-Run Effect of Wealth on Consumption

$$dC_t = \alpha_0 + \alpha_1 dW_{t-1} + \alpha_2 dW^S_{t-1} + \alpha_3 dW^N_{t-1} + \alpha_4 MU_{t-1} + \alpha_5 FF_{t-1}$$

Next-Quarter Effect of \$1 Change in Wealth			Extra Variables			
Total dW_{t-1}	Stock dW^S_{t-1}	Nonstock dW^N_{t-1}	Unemp Exp MU_{t-1}	Fed Fund FF_{t-1}	Test of $dW^S = dW^N$	$\bar{R}^2$
0.0168***						0.128
(0.0044)						
0.0107***			0.081**	−0.457**		0.232
(0.0032)			(0.033)	(0.208)		
	0.0157***	0.0381***			0.078	0.136
	(0.0046)	(0.0113)				
	0.0081***	0.0182**	0.073**	−0.492**	0.239	0.230
	(0.0026)	(0.0083)	(0.036)	(0.214)		

Notes: Sample period is 1960Q1–2004Q3. Standard errors in parentheses. {*,**,***}=Statistical significance at {10,5,1} percent. Coefficients on wealth variables reflect MPCs in the quarter following a wealth change: For example, the coefficient 0.0167 in the first row implies that a one dollar increase in wealth in the previous quarter translates into a 1.7 cent increase in consumption in the current quarter. The wealth variables are from the Flow of Funds balance sheets for the household sector. MU is the fraction of consumers who expect the unemployment rate to decline over the next year minus the fraction who expect it to increase. FF is the nominal Fed funds rate. The wealth and consumption variables were normalized by the level of consumption expenditures at $t-4$ to correct for the long-term trends in consumption and wealth. The equations without the extra variables exhibited serial correlation and so standard errors for those equations are corrected for serial correlation using the Newey–West procedure with 4 lags.

Table 2: Consumption Growth Momentum and the Long Run MPC
$dC_{t+1} = c_0 + \chi \mathbf{E}_{t-1} dC_t + \zeta_{t+1}$

Variables used to forecast $\mathbf{E}_{t-1}dC_t$	Consumption Growth Momentum Coefficient χ	Implied Long-Run MPC out of		
		Total W	Stock W^S	Nonstock W^N
W	0.59**	0.069		
	(0.23)			
W,	0.78***	0.061		
MU, FF	(0.14)			
W^S, W^N	0.47**		0.063	0.153
	(0.20)			
W^S, W^N,	0.73***		0.041	0.091
MU, FF	(0.13)			

Notes: Sample period is 1960Q1–2004Q3. Standard errors are in parentheses. {*,**,***}=Statistical significance at {10,5,1} percent. The long-run MPCs are calculated from the formula $\alpha_n/\chi(1-\chi)$ where α_n is the corresponding next-quarter MPC estimated in table 1. Standard errors for all equations are heteroskedasticity and serial-correlation robust. When more instruments are used to forecast dC_t (for example, the Fed funds rate and the change in unemployment over the previous year), the estimate of ρ tends to rise further and the standard error falls further. The measure of the change in wealth used for the regressions is the ∂W measure defined in the text, as this can be measured without an estimate of ρ, unlike the dW measures used in the previous table.