

Woodman-Scheller Israel Studies International Program

Calculating the Housing Wealth Effect of Israeli regional cohorts

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November 2016

Working Paper Housing Wealth Effect Proposal

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29November2016

 ${\it JEL~classification:} C10, C14, C22$

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Abstract

This is the abstract of my paper.

 $\label{eq:Keywords:consumption} Keywords: \ \ consumption, \ \ economics, \ \ housing, \ housing \ \ market, \ \ liquidity \ \ constraints, \\ we alth \ \ effect$

1 Introduction

1.1 The housing market

The study of housing provides a fascinating topic for the researcher of Israeli society. Several factors have drawn attention to the housing market and made it a topic of much discussion. The price of housing was one of the main issues that drove more than 400,000 demonstrators to the streets in the summer of 2011. Large portions of the Israeli population own a home, or rent one, or live in a multi-family household. Their first-hand experience of the market may be relayed to the researcher as anecdotal evidence of the state of the housing market, as well as causes and solutions for the perceived short-comings of the market.

In a simple economic model of the housing market, house prices are set by the market forces of supply and demand. Various influences on suppliers of housing (current owners who choose to rent owners who choose to sell, builders of new housing), and those who demand housing (commonly characterized as young couples) will shift the supply and demand curves and affect the market-clearing price level. Consider an interest-rate reduction, this shifts the demand curve to the right, as cheaper credit causes more buyers to enter the market. It also reduces credit-constraints on builders and leads to increased supply, albeit after some lag.

The average house price has risen by an astonishing 80% between the 2008 global financial crisis and 2016. In the minds of many lay observers this indicates a lack of supply, with main bottlenecks limiting supply being cited as the sale of government land or the lengthy permitting process for new construction.

Gruber,¹ however, offers copious evidence and cogent reasoning to support his claim that the chief factor in the rise was actually excessive demand. As global capital markets suffered large declines investors moved to other asset classes, including the real estate market. The additional factor of low interest rates lead to a dramatic increase in purchase of additional houses by those who were already owner-occupiers. This shifted the demand curve to the right, increasing the average cost of an apartment and driving out less affluent first-time homebuyers. These would-be first-time homebuyers then entered or remained

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in the rental market, driving up average rents. The higher market rental prices and lowered vacancy rate established a feedback loop which further encouraged in the purchase of investment houses as rental property. ## Consumption by Households The expenditure method for calculating National Income (Y), states that Y=GDP=C+I+G+NX. The gross domestic product is equal to Consumption Expenditure (C) plus Investment Expenditure (I) plus Government Expenditure (G) plus Net Exports (NX). Firms and households each engage in both consumption and investment. When a firm buys a copy machine which lasts several years, that is an investment, so is the purchase of owneroccupied housing, in fact it's one of the chief investments made by households. The paper placed in the copy machine and the food on the table are each classified as consumption. Consumption by households makes up a large and important part of GDP. It is a measure tracked closely by businesses, economists and the government. You may have heard the nightly news announce the latest retail-sales data. Household income is either saved or consumed, with the marginal propensity to consume (MPC) and the marginal propensity to save (MPS) summing to 1. Generally household consumption can be understood as household income times the MPC. The MPC can be affected by the interest rate, rising interest rates incentivize additional savings, raising the MPS and lowering the MPC. Falling interest rates decrease the attraction of savings. With a constant MPC a household can increase consumption due to increased income from a salary increase, hourly wage increase or increase in the number of hours worked. Household consumption would fall due a decrease in salary, wages or working hours. A further factor in consumption is expected future income. This posits that the rational consumer increases their consumption now if they know that they will get a raise or some overtime next week. They will also reduce consumption and increase savings now when they expect future unemployment or wage reductions. Another factor affecting consumption is the wealth effect. When the wealth of a household increases (the price of shares held in an investment portfolio, the price of Picasso on the wall or in a vault, the price of the family home or rental property), household consumption increases, in effect spending now some of the expected future gains on the sale of the shares, painting or real estate. Conversely, a decline in household wealth should produce a decline in household consumption and GDP.

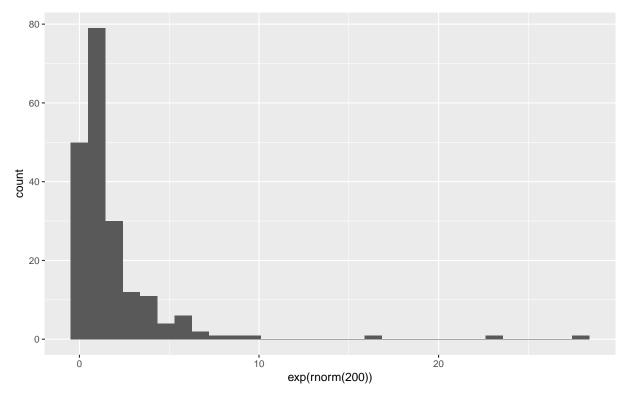


Figure1: Nice histogram

1.2 the wealth effect, or wealth effects?

This study combines household level consumption data with housing price data to estimate test the hypothesis that different age cohorts have different wealth effects. It has been postulated that older households will have a higher wealth effect, or larger proportional change in spending in response to a change in wealth than a younger household. The available consumption data from the Household Expenditure Survey provides us with a means to test this hypothesis.

Consider the logNormal data plotted in Figure 1.

References

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Bajari, P, CL Benkard, and J Krainer. House prices and consumer welfare. *Journal of Urban Economics* 58, no. 3 (2005): 474–487.

Barkat, A. Flug: Home price solution is supply, supply and supply. Globes, 2016.

Benjamin, JD, P Chinloy, and GD Jud. Real Estate Versus Financial Wealth in Consumption. The Journal of Real Estate Finance and Economics 29, no. 3 (2004): 341–354.

Bhatia, KB. Real Estate Assets and Consumer Spending. The Quarterly Journal of Economics 102, no. 2 (1987): 437.

Bodkin, R. Windfall Income and Consumption. *The American Economic Review* 49, no. 4 (1959): 602–614.

Browning, M, M Gørtz, and S Leth-Petersen. Housing Wealth and Consumption: A Micro Panel Study. *The Economic Journal* 123, no. 568 (2013): 401–428.

Browning, M, and A Lusardi. Household Saving: Micro Theories and Micro Facts. *Journal of Economic Literature* 34, no. 4 (1996): 1797–1855.

Buiter, WH. Housing Wealth Isn't Wealth. Working Paper, Working Paper Series 14204. National Bureau of Economic Research, 2008. http://www.nber.org/papers/w14204.

———. Housing Wealth Isn't Wealth. Economics: The Open-Access, Open-Assessment E-Journal 4, nos. 2010-22 (2010): 1.

Calomiris, C, SD Longhofer, and W Miles. *The (Mythical?) Housing Wealth Effect*. Working Paper, Working Paper Series 15075. National Bureau of Economic Research, 2009. http://www.nber.org/papers/w15075.

Campbell, JY, and JF Cocco. How do house prices affect consumption? Evidence from micro data. *Journal of Monetary Economics* 54, no. 3 (2007): 591–621.

Carroll, CD. A Theory of the Consumption Function, with and without Liquidity Constraints. *The Journal of Economic Perspectives* 15, no. 3 (2001): 23–45.

——. Death to the Log-Linearized Consumption Euler Equation! (And Very Poor Health to the Second-Order Approximation). Working Paper, Working Paper Series 6298. National Bureau of Economic Research, 1997. http://www.nber.org/papers/w6298.

——. Housing Wealth and Consumption Expenditure. Technical report. Johns Hopkins University, 2004.

Case, K. Comparing Wealth Effects: The Stock Market versus the Housing Market. Advances in Macroeconomics 5, no. 1 (2005).

Choudy, O. Kahlon hails deal to build 20,000 homes in Beersheva. Globes, 2015.

Clarke, H, and J Zavisca. Housing/Housing Markets. The Wiley Blackwell Encyclopedia of Consumption and Consumer Studies, 2015.

Claudio Irigoyen, MLJW, Esteban Rossi-Hansberg. Solutions manual for recursive methods in economic dynamics. Harvard University Press, 2003.

Cristini, A, Annalisa; Sevilla Sanz. Do House Prices Affect Consumption? A Comparison Exercise. Working Paper 589. Oxford U., 2011.

Deaton, A. *Understanding consumption*. Clarendon Lectures in Economics. Oxford University Press, USA, 1993.

Delmendo, LC. Israel's house price boom continues. Global Property Guide, 2016.

Dovman, P, S Ribon, and Y Yakhin. The Housing Market in Israel 2008-2010: Are House Prices a'Bubble'? *Israel Economic Review* 10, no. 1 (2012).

Druckman, Y. Israel's housing crisis: Massive price increases across the country. *Ynet*, 2015.

Engelhardt, GV. House prices and home owner saving behavior. Regional Science and Urban Economics 26, nos. 3-4 (1996): 313–336.

Finlay, CWJJR. *Home Prices and Household Spending*. Research Discussion Paper. Economic Group: Reserve Bank of Australia, 2013.

Fuchs, H. The Socioeconomic Situation of Young Adults in Israel. State of the Nation Report: Society, Economy and Policy in Israel, 2015, 139–181.

Gan, J. Housing Wealth and Consumption Growth: Evidence from a Large Panel of Households. *Review of Financial Studies* 23, no. 6 (2010): 2229–2267.

Gardes, F, GJ Duncan, P Gaubert, M Gurgand, and C Starzec. Panel and Pseudo-Panel Estimation of Cross-Sectional and Time Series Elasticities of Food Consumption. *Journal of Business Economic Statistics* 23, no. 2 (2005): 242–253.