

The Impact of Life Events on Homeownership

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Purpose

Life events may alter the circumstances and life trajectory, depending on their magnitude, duration and whether or not it was foreseen. The responses to these life events are likely to be influenced by personal appraisal of the event, coping skills, access to effective support networks, socio-economic resources and recent and current exposure to other difficult or favourable events or circumstances (Moloney et al., 2012). Much of the household financial decision-making literature concentrates on static models using cross-sectional data, which means that there is little insight into how households react to changing circumstances or respond financially if they experience a significant life event. However, there is a growing body of research that is utilising longitudinal panel data, including repeated cross-sections and dynamic models, to gain insight into household's portfolio rebalancing responses when they have experienced a financial shock of some sort.

The purpose of this study is to examine the impact of life events on the portfolio rebalancing of the family home. The high portfolio share of property in Australian household asset portfolios exposes participants' levels of wealth to property market fluctuations and interest rate changes, and in some cases owning a home increases the financial stress experienced by the household. Thus, when the household experiences a negative financial shock derived from a life event, the household may be forced to divest or downsize their family home, resulting in a loss of wealth and other intangible benefits like life satisfaction.

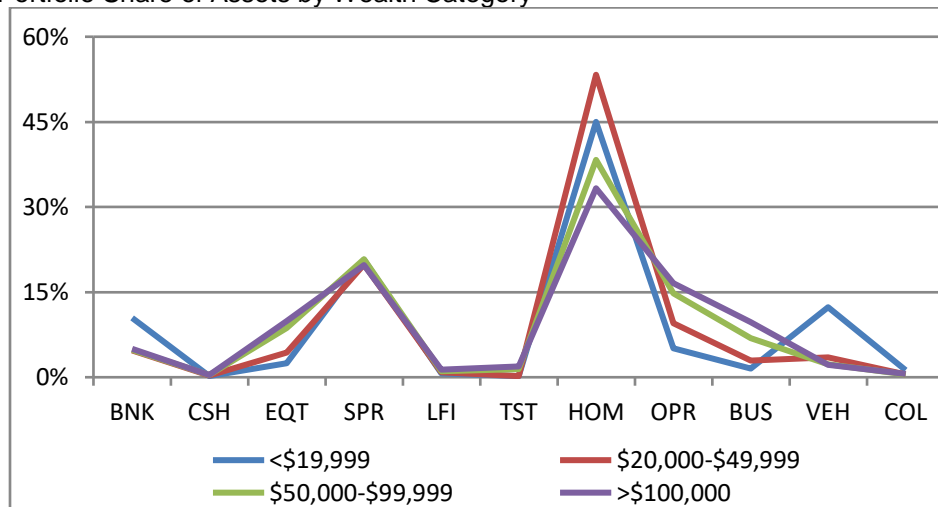
To quantify households' portfolio rebalancing response to a life event, a dynamic model is employed that incorporates two lags and two leads of each shock on the portfolio share of the family home. The investigation of the portfolio share before and after the shock determines the magnitude and duration of the impact of the life event on their financial decisions. This research is important as life events (or shocks) such as these may impact dramatically on a household's financial position. Wealth may increase or divide, spending needs change, new expenditures are formed regarding future income, longevity, and bequests. These transitions constitute an important source of risk, with the potential to affect wealth accumulation, including the demand for (risky) assets.

Method

This study uses Waves 1 to 10 (corresponding to the years 2001 to 2010) of the Household, Income, and Labour Dynamics in Australia (HILDA) Survey. HILDA tracks 7,682 Australian households comprising 19,914 individuals throughout their lives, and the wealth module (Waves 2, 6 and 10) includes questions relating to household investment in a number of key assets, including the family home (*HOM*) and other property (*OPR*), superannuation (*SPR*), equity (*EQT*) and cash investments (*CSH*), business assets (*BUS*), bank accounts (*BNK*), life insurance (*LFI*), trust funds (*TST*), and collectables (*COL*). Figure 1 shows the portfolio share of each asset class by net wealth category. It can be seen that the portfolio share of *HOM* is greatest for those in the second wealth category of \$20,000 to \$49,999, with the lowest share held by the wealthiest cohort as they can afford to diversify wealth across more asset classes.

The richness of the HILDA dataset allows not only a comprehensive examination of the demographic, socioeconomic and other characteristics of Australian households, but owing to its longitudinal nature, permits the examination of how households rebalance their portfolios in response to certain life events. The ten life events examined include being diagnosed with a serious illness or injury (*INJ*), death of a spouse (*DTH*), retired (*RET*), been fired or made redundant (*FRD*), separated from spouse (*SEP*), reconciled with spouse (*REC*), death of a close friend or relative (*DRF*), and acquisitions of a business (*BSS*), and macroeconomic uncertainty (*MKT*).

Figure 1. Portfolio Share of Assets by Wealth Category



The life events are dummy variables where the respondent indicates in the Self Complete Questionnaire that they experienced any of the above life events. To align with the Wealth Module data, a dummy variable equal to 1 is coded if the household experienced the life event in 2001 to 2002 time period, the 2003 to 2006 time period, and the 2007 to 2010 time period. For the acquisition of a business a dummy equal to 1 if the value of the business asset (*BUS*) is greater than 0 in *t* and 0 in *t-1*. Table 1 shows that the life event most experienced by Australian households was *INJ*, followed by *DRF*.

Table 1. Life Events

	2002		2006		2010		Total
INJ	1,270	18.1%	2,981	43.5%	2,727	39.9%	6,979
DTH	65	0.9%	185	2.7%	171	2.5%	421
RET	200	2.9%	512	7.5%	595	8.7%	1,307
FRD	250	3.6%	552	8.0%	536	7.8%	1,338
SEP	275	3.9%	648	9.4%	547	8.0%	1,470
REC	89	1.3%	176	2.6%	147	2.1%	412
DRF	782	11.2%	2,220	32.4%	2,153	31.5%	5,155
BSS	–	0.0%	367	5.3%	341	5.0%	708
Total Life Events	2,931		8,078		14,514		
Total N	7,002		6,860		6,840		20,702

The methodological approach described herein will be similar to that of Coile and Milligan (2009), who examined older households to see whether changes in asset holdings during old age are related to health and mortality shocks including the death of a spouse and events such as a stroke or new cancer diagnosis. Similarly, this analysis uses a dynamic model to assess the short and long-term impacts of life events on the portfolio composition. This is achieved by including lead and lag dummy variables of each life event in a model of asset holdings and portfolio share. This provides a sense of how households respond to each particular type of life event, whether expected or unexpected, in the period leading up to and after the event occurs. Due to the confines of the data, only two lead (*Lplus1* and *Lplus2*) and lag (*Lminus1* and *Lminus2*) variables can be used. Tobit panel data regressions with random effects of the form below are estimated:

$$y_{it} = \beta_0 + \beta_1 L_{minus2} + \beta_2 L_{minus1} + \beta_3 L_{plus1} + \beta_4 L_{plus2} + \beta_5 age + \alpha_i + \varepsilon_{it}$$

Models are estimated separately for each life event (*L*), and control for age effects, across the portfolio share (y_{it}) of *HOM*.

Findings

The estimated coefficients, standard errors and p-values are reported in Table 2. The coefficients are interpreted as the percentage point change in the share of the *HOM* asset class, compared to the mean ownership rate of *HOM* (44.2%). Also reported in the data analysis table is the log-likelihood ratio (lnLR), Wald chi-square (Wald χ^2) tests that the model fits better than an empty model and Wald chi-square tests that the panel data specification fits better than a pooled model ($\chi^2(01)$)

The results in Table 2 show that the role of the family home in a portfolio of mixed assets is somewhat dependent on the life-cycle stage. For example, for those households who are planning for retirement (*RET*), the portfolio share of *HOM* is reduced compared to other households in both periods leading up to actually retiring, which may be due to increased investment in superannuation or other income generating assets. After *RET*, there is a long term portfolio rebalancing response to reduce the role of *HOM*, which is consistent with the notion of downsizing and that more liquid assets may play a more prominent role.

The portfolio rebalancing before and after a *SEP* also garners some interest. In both periods leading up to a *SEP*, *HOM* has an increased portfolio share. Upon the *SEP* occurring, there is an immediate reduction in the portfolio share of *HOM*, due to the separation of assets between the two parties. However, as the HILDA Survey tracks the household members as they move to new living arrangements, we see that over the longer term the household members return to homeownership. Therefore it is likely that the security, wealth creating and cultural significance of homeownership make it high on the priority list for Australians, particularly those whom have previous experience. Business owners also tend to increase their portfolio share of *HOM* in both periods prior to *BSS*, with the reduction post business acquisition due to the inclusion of business assets in the portfolio. Literature shows that business owners value safer assets due to the riskiness of being in business, and so the family home is likely to continue to play an important role for them, in addition to being a retirement savings substitute (Gutter and Saleem, 2005).

Those that experience *FRD* increase the portfolio share of *HOM* two periods beforehand, and a decrease in both periods afterwards. It is likely that these people need to undergo extensive rebalancing of assets over a period of time that depends on when they are reemployed. It is likely that they will immediately draw down on liquid assets like cash and equities, and then the medium and longer term consequences for *HOM* may be divestment, downsizing or moving to seek better employment opportunities.

The households that experience *INJ* show reductions in the portfolio share of *HOM* for all prior time periods. This may be because sickness (including initial sickness before diagnosis) and injury causes uncertain income and therefore people allocate more funds to saving products, or they downsize their homes. Similarly, households that experienced *DTH* reduced the portfolio share of *HOM* in the period prior to the death occurring. As some deaths may be foreseeable due to illness, this reduction may be planned portfolio rebalancing. Finally, there are short-term increases when *INJ* and *DRF* are experienced. Households may receive compensation payouts for an injury, or be beneficiaries of an estate, and invest this money in upgrading the family home.

Table 2. Estimated Coefficients, Standard Errors and p-values of Tobit on the Portfolio Share of *HOM* and Lead and Lag Life Events

	INJ	DTH	RET	FRD	SEP	REC	DRF	BSS
AGE	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.004
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Shock+2	-	-	-	-	-	-	-	-
	0.004	0.048	-0.035	0.011	0.030	0.030	0.005	.
	0.008	0.034	0.020	0.018	0.017	0.031	0.010	.
	0.606	0.161	0.075	0.535	0.086	0.321	0.610	.
Shock+1	-	-	-	-	-	-	-	-
	0.010	0.001	0.004	0.015	0.033	0.006	0.017	-0.015
	0.006	0.025	0.014	0.013	0.013	0.023	0.007	0.014
	0.085	0.984	0.769	0.261	0.010	0.783	0.017	0.296
Shock-1	-	-	-	-	-	-	-	-
	0.007	0.030	-0.026	0.008	0.015	-0.021	-0.001	0.062
	0.004	0.014	0.008	0.008	0.008	0.015	0.004	0.010
	0.114	0.034	0.002	0.345	0.073	0.169	0.877	0.000
Shock-2	-	-	-	-	-	-	-	-
	0.010	0.023	-0.035	0.020	0.038	-0.008	0.005	0.024
	0.005	0.021	0.011	0.012	0.012	0.022	0.006	0.015
	0.064	0.278	0.001	0.092	0.001	0.724	0.356	0.097
CONS	0.287	0.278	0.280	0.274	0.271	0.279	0.277	0.268
	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ_u	0.240	0.240	0.240	0.240	0.240	0.240	0.240	0.240
	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ_e	0.213	0.213	0.213	0.213	0.213	0.213	0.213	0.212
	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
ρ	0.560	0.560	0.559	0.560	0.561	0.559	0.560	0.683
	0.007	0.007	0.007	0.007	0.117	0.007	0.007	0.005
lnLR	-	-	-	-	-	-	-	-
	2,909	2,911	-2,904	2,912	2,901	-2,913	2,912	-463

	INJ	DTH	RET	FRD	SEP	REC	DRF	BSS
Wald χ^2	351.3 0	345.6 8	360.51	344.2 7	366.5 6	342.08	345.1 5	360.5 3
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
LR $\sigma_u = 0$	5,731	5,728	5,708	5,728	5,710	5,712	5,729	8,838
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
McFadden's R ²	0.496	0.496	0.496	0.496	0.496	0.495	0.496	0.905
ρ^{yDV}	0.159	0.158	0.162	0.158	0.156	0.158	0.158	0.313
ρ^2	0.025	0.025	0.026	0.025	0.024	0.025	0.025	0.098

Implications

The study extends that of Coile and Milligan's to use Australian longitudinal panel data and a random effects model. The findings are important as financial service advisors need to prepare people financially for the occurrence of unforeseen events, which can have significant financial consequence. Of particular concern is that there are events like separating from a spouse, the death of a spouse and being fired or made redundant that decrease the portfolio share of homeownership after it is experienced. Financial service providers can play a pivotal role in guiding people through these difficult times, and advise people on their options for renegotiating debt agreements, applying for hardship provisions and government assistance. Furthermore, financial planners need to ensure that clients have a diverse range of liquid assets that are able to be drawn down upon when needed, but are able to avoid selling at the bottom of the market cycle for that particular asset class.

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References

- Coile, C., & Milligan, K. (2009). How Household Portfolios Evolve After Retirement: The Effect of Aging and Health Shocks. *Review of Income and Wealth*, 55(2), 226-248.
- Gutter, M. S., & Saleem, T. (2005). Financial Vulnerability of Small Business Owners. *Financial Services Review*, 14, 133-147.
- Haisken-DeNew, J. P., & Hahn, M. H. (2010). PanelWhiz: Efficient data extraction of complex panel data sets—An example using the German SOEP. *Journal of Applied Social Science Studies*, 130(4), 643–654.
- Moloney, L., Weston, R., Qu, L., & Hayes, A. (2012). *Families, Life Events and Family Service Delivery: A Literature Review*. Melbourne: Australian Institute of Family Studies.

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