The Bank of Mum & Dad – Intergenerational transfers and first-time homeownership in Australia

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The Bank of Mum & Dad – Intergenerational transfers and first-time homeownership in Australia

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Abstract: *Around 70 per cent of Australians reside in owner occupied housing. Recently ownership rates have begun to fall, especially for younger cohorts. Owner occupied housing generally represents the largest single asset in the household wealth portfolio and plays an important role in retirement planning and wealth accumulation. There is some anecdotal evidence that transfers from parents are an increasingly important mechanism to facilitate entry into homeownership. In this paper we consider transfers in the form of bequests and inter vivos gifts from parents, and, their role of transfers in the wealth accumulation process and entry into first-time homeownership. The empirical analysis indicates that bequests and inter vivos transfers hasten entry into homeownership, potentially alleviating some important liquidity constraints faced by households.*

Keywords: *intergenerational transfers, bequests, wealth accumulation, first-time homeownership.*

JEL codes: J14, D64

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1. Introduction

Like a number of other countries, homeownership is the dominant form of housing tenure in Australia. While the period since the Second World War had been generally characterised by increasing home ownership rates, the experience of the past two decades suggests that this trend has stagnated, particularly among younger Australians. Recent data suggest that the proportion of first-time buyers is at historically low levels (Australian Bureau of Statistics (ABS) 2016). There are a variety of demographic and socio-economic reasons for changes in rates of homeownership across cohorts. Younger Australians are attaining increasingly higher levels of education and delaying partnering and fertility decisions. In turn, the formation of independent households is occurring later in the life-cycle as children spend longer periods residing in the parental home (Cobb-Clark and Gorgens 2014). Another potentially important consideration is the relatively high cost of housing in Australia with the period since the mid-1980s characterized by cycles featuring steep increases in house prices that then plateau at successively higher real levels.

From a policy perspective, the significance of home ownership in Australia is shaped by its central role in the retirement income system and the wealth accumulation process. Owner-occupied housing often represents the single largest asset in the household portfolio and declines in home ownership potentially have a number of important implications (Productivity Commission 2015). Tax and transfer policy settings in Australia provide explicit and implicit subsidies that favour ownership as a form of tenure. Unlike other asset classes owner-occupied housing does not attract capital gains tax and imputed rental income does not form part of assessable income. Moreover, homeownership is central to the sustainability and adequacy of the retirement incomes system. While transfer policies including the age pension are means-tested and targeted to those in need, owner-occupied housing is exempt from the asset test that is applied to such transfers. Owner occupied housing has been viewed as an important part of wealth creation and retirement planning over time. If younger Australians find it increasingly difficult to attain homeownership this may have important consequences for the accumulation of wealth and the sustainability of tax and transfer programs (Yates & Bradbury 2010).

One development that has gained attention in light of the decline in the proportion of first home buyers is the potential for parental transfers to facilitate entry into the housing market. Parental or intergenerational assistance may take a number of forms including direct transfers in the form of *inter vivos* gifts or bequests. While there is some evidence that parental transfers have become more important vehicles to facilitate entry into home ownership, the evidence remains limited. There is little evidence available about the frequency and size of intergenerational transfers or their impact, especially in the context of housing careers and wealth accumulation more generally. To the extent that there is empirical evidence, it is largely anecdotal, somewhat dated

and relies on data that arguably cannot be generalised to the Australian population (Anonymous 2014; Drury 2014; O'Dwyer 2001; King and McDonald 1999; Yeates 2015).

The contribution of this paper is threefold. First, we establish the frequency and size of bequests and *inter vivos* gifts among a panel of Australians. Following this we describe how wealth accumulation profiles differ conditional on being the beneficiary of intergenerational transfers. Finally, we focus on home ownership and consider how intergenerational transfers in the form of bequests and *inter vivos* gifts from parents impact on transitions into first homeownership. The empirical analysis highlights some evidence that transfers and bequests facilitate the accumulation of wealth over time. Moreover, the empirical estimates suggest that the receipt and value of bequests accelerate the transition into first-time homeownership. In contrast, *inter vivos* transfers from parents appear to be used more strategically to facilitate homeownership.

The remainder of the paper is set out as follows. In the next section, we present a literature survey. Following this, in section 3 we describe the data used in the analysis, namely the Household Income and Labour Dynamics in Australia (HILDA) dataset. In section 4 we present wealth accumulation profiles, and how these are shaped by the receipt of bequests and *inter vivos* transfers. Given the central role played by home ownership in wealth accumulation over the life-cycle, we begin exploring this relationship in section 5 where the methodological framework used in the modelling of transitions into first home ownership is set out. Results from the empirical analysis of transitions into first-time homeownership are presented in section 6. A discussion of the policy implications and potential avenues for future research are described in section 7.

2. Literature Survey

Home ownership in Australia increased rapidly in the period following the Second World War reaching around 70 per cent in the early 1960s. Around one quarter of households rent in the private market and the social housing sector meets the needs of roughly five per cent of households (Kryger, 2009). While overall rates of homeownership have remained relatively stable over the past few decades, this masks some underlying changes across cohorts. Yates (2000, 2002) and Flood and Baker (2010) identify falls in the rate of home ownership among households in the 25–44-year-old age groups of around 15 per cent over the period 1986–2006. Changes across specific age groups are even starker. While 56 per cent of 25 – 34 year old Australians had purchased their own home in 1982, this proportion had fallen to less than one-third by 2013. Over the same time period, home ownership rates also fell among those aged 35–44 years from 75 per cent to approximately 62 per cent (Wood and Ong, 2017).

Owner occupation has traditionally been seen as a safe form of saving and an integral part of wealth accumulation over the life-cycle. Home ownership rates among older Australian households exceed 80 percent and are among the highest across OECD countries (Productivity Commission 2015). This reflects a range of considerations including the implicit and explicit support offered to this form of tenure in the tax and transfer system. Australia has what has been described as 'four-pillar' approach to retirement income where the first three pillars consist of a publicly provided means-tested age pension; mandatory private superannuation saving and voluntary saving. Each of these pillars has developed independently and exhibit unique features. Unlike most countries the age pension is non-contributory and though paid at a flat rate, the amount received is subject to both income and assets tests (OECD, 2013). The value of owner occupied housing equity is explicitly excluded from the asset means-test, while net imputed rents are disregarded under the income test. Compulsory saving in the form of superannuation was expanded in the early 1990s increasing its coverage from around 50 percent of the workforce to almost all non-casual employees. While growing in significance, superannuation is unlikely to be 'fully matured' as a retirement incomes policy until 2030 (Yates and Bradbury 2010).

Home ownership represents the fourth pillar of the Australian income retirement system albeit one that has been described as increasingly tenuous. As in many other countries at or around retirement owner-occupied housing represents the largest single asset in the household wealth portfolio (Productivity Commission 2015). In light of the relatively low rate at which the publicly funded pension is paid and the relative immaturity of the superannuation system, owner-occupied housing has played a critical role in supporting living standards throughout retirement.[1] Analysis indicates that before housing cost poverty rates among older Australian households are among the highest in OECD countries. In comparison, after housing cost poverty rates are among the lowest across OECD countries (Yates and Bradbury 2010). It would seem therefore that the accumulation of housing wealth in pre-retirement stages of the life cycle plays a significant role in supporting consumption in later life by acting as a hedge against rent rises (Glaeser and Gyorko, 2018).

The importance of homeownership in supporting living standards during retirement brings into sharp focus the policy challenges presented by the decline in home-ownership rates among younger cohorts of Australians over the past three decades. Homeownership has traditionally been viewed as a means to accumulate wealth via a tax-advantaged asset, a role that has benefited from long term increases in the real price of housing. Moreover, owner-occupied housing serves both an insurance role in old age that can be drawn on to meet adverse shocks, as well as a bequest motive, giving it an advantage in this respect over many other financial

[1] The Australian age pension replaces only 13.6 percent of average earnings. The 34 country OECD average is 40.6 percent (see OECD, 2013, table 4.4).

assets. If homeownership rates among today's younger age groups remain low over the course of their life-cycle, such developments could have significant implications for wealth accumulation and living standards when younger cohorts enter retirement.

Given the central role played by housing in retirement planning and wealth accumulation it is important to stress that the mortgage market in Australia is relatively mature. Mortgages in Australia are typically 25 or 30 years long and the majority of borrowers take variable rate loans (Reserve Bank of Australia 2008). Traditionally, financial institutions have adopted a relatively conservative approach to lending and required borrowers to contribute a substantial deposit, provide documentation of income and demonstrate a capacity to repay the loan. Typically, housing loans have a maximum loan-to-valuation of around 95 per cent and are fully documented. In Australia mortgages in Australia are 'full recourse' and this allows lenders to require borrowers to repay the full value of the loan when in default, even in the event of negative equity (Murphy 2011). However, substantial financial innovation following a period of deregulation in the 1980s spawned a range of new mortgage products that offered more flexible repayment arrangements including mortgage equity withdrawal.

A key feature of housing in Australia that has attracted increasing attention is the level of house prices. Kohler and van der Merwe (2015) report that in real terms, housing price inflation during the 1980s was relatively low at 1.4 per cent per annum. In contrast, real house prices accelerated at the more rapid rate of 4.5 per cent during the period from 1990 to the mid-2000s, and 2.5 per cent over the past decade. Since the GFC the impact of increased house prices have been partially offset by falling mortgage interest rates that have reduced the cost of servicing loans. Fox and Finlay (2012) argue that while the dwelling price-to-income ratio in Australia is similar to a range of other advanced economies with the exception of the United States and Japan, they have risen significantly in the period since financial deregulation in the 1980s. In 1987 average house values reported by home owners were 5.6 times average household disposable income; but by 2015 average house values spiralled to be 8.2 times average disposable household income.[2]

Sustained increases in the price of housing coupled with the decline in the number of first home-buyers has focused attention on the potential role of parental transfers in facilitating entry into the housing market for younger Australians. The purchase of owner-occupied housing generally represents the largest single transaction entered into by the household over the course of the life-cycle. Plaut (1987) argues that the transition into owner-occupation reflects the role of housing as both a consumption good and an important financial asset in the household's portfolio. At the time of purchase, households generally face imperfect credit

[2] Authors calculations from the confidentialised unit record files of the Australia Bureau of Statistics Survey of Income and Housing,

markets and have few assets that may be leveraged or act as collateral (Artle and Variya 1978; Brueckner 1986). The purchase of housing is likely to depend on a range of considerations including preferences for owner occupation over rental tenure, permanent income and the relative price of renting versus ownership. Parental transfers may play an important role in relaxing downpayment constraints and thereby facilitating transitions into owner-occupation. Transfers can help transitions in a number of ways including changing the timing of entry into homeownership, or, altering the size of the downpayment, loan or quantity of housing purchased (Guiso & Jappelli 2002; Mayer & Engelhardt 1996). The timing of transition into homeownership may be affected because households that were previously credit constrained can bring forward their purchase of housing, as they no longer have to wait until they have accumulated the full amount of their deposit requirement.

There is some empirical analysis of how intergenerational transfers have impacted housing related behaviours and outcomes. In an early study for the United States, Mayer and Engelhardt (1996) note that transfers largely reflect credit market constraints faced by first-time homebuyers. The analysis in that paper focused on a set of 'constrained' first-time home buyers defined as those who have accumulated a down payment of less than 20 per cent of the purchase price and have an obligation ratio of greater than 28 per cent of gross income.[3] The analysis finds that constrained households are more likely to receive intergenerational gifts or transfers, and the gifts represent a larger share of their down payment compared to unconstrained households. In a subsequent study, Engelhardt and Mayer (1998) find that recipients of transfers generally spend a shorter period saving for down payments or deposits. Further, there is evidence that the down payment is larger among transfer recipients, and the value of the house purchased is higher, though the full amount of the transfer is not capitalised into the value of the home purchased.

More recent US evidence on the effect of gifts or transfers is provided by Luea (2008) using the PSID to identify the impact of inheritances, parental gifts and similar payments on the probability of homeownership. The analysis concludes that those receiving such monetary transfers are 1.2 times more likely to purchase a home compared to those households that do not receive a transfer. The impact is substantially larger for those who receive transfers in excess of $5000. For those households that receive a financial gift from parents, housing demand increases by approximately 10 per cent so that for an average household, the value of the occupied home increases by approximately $19,000. This suggests that rather than increasing the down payment, or reducing the size of repayments, such transfers lead to higher housing consumption.

[3] The obligation ratio is defined so that mortgage repayments, property taxes and insurance premiums do not exceed 28 per cent of gross income.

Analysis of the role of intergenerational transfers and their impact on housing outcomes for Europe is more nuanced, reflecting the variety of institutional regimes and social norms across countries. Guiso and Jappelli (2002) examine the role of intergenerational transfers in the form of bequests and *inter vivos* gifts on the time spent saving for a down payment in Italy. Around 16 per cent of individuals report receiving a gift or financial support earmarked for real estate purchase. One distinctive feature of entry into homeownership in Italy is that it generally occurs much later in life than in other countries with homeownership rates peaking just prior to retirement. While the analysis finds that the receipt of transfers has a marked effect on the conditional probability of transition into first-time homeownership, the effects of transfers appears to be relatively small in terms of the time spent saving prior to entering homeownership. Guiso and Jappelli (2002) also find some evidence that the amount of housing purchased is larger following the receipt of an intergenerational transfer.

Using a sample of Irish first homebuyers, Duffy and Roche (2007) find that between 2000–2004, around one-third of households receive an *inter vivos* transfer and the transfer represented 21 per cent of the down payment. For France, Spilerman and Wolff (2012) find that parental transfers impact on the likelihood that individuals are homeowners and the amount of housing consumed. This increase in the value of housing consumption comes about in part because of a higher down payment, and also because of an impact through higher purchase prices.

Somewhat different patterns emerge among the Nordic countries. Using a large administrative database for Denmark, Kolodziejczyk and Leth-Petersen (2013) find little evidence that intergenerational transfers are used to support homeownership. In the Netherlands, around nine per cent of individuals report receiving financial support for homeownership from parents (Mulder & Smits 2013). While there is little evidence that financial support is based on need, parental transfers to facilitate homeownership were positively correlated with parental resources and more likely among individuals reporting that their parents were homeowners. While parental homeownership does have a large impact on monetary support, including that for homeownership, there is no evidence that parent homeowners are particularly focused on providing support for their children's home ownership prospects *per se*.

For Australia, evidence on the extent of and impact of transfers is more limited. A study by O'Dwyer (2001) used data on deceased estates to examine the frequency with which individuals receive bequests, especially those related to property. O'Dwyer (2001) notes that only one per cent or so of all households receive bequests on an annual basis. Moreover, individuals in occupations that may be considered more prestigious, such as managers, tend to receive higher bequests than the less skilled. Those inheritances are themselves positively correlated with the housing wealth of beneficiaries. King and McDonald (1999) examine the receipt of bequests, and gifts or loans associated with the purchase of property. Help with home or land purchase peaks at ages 30–35 years for recipients and around five per cent of respondents report receiving

this type of transfer in the previous ten years. Conversely, inheritances are reported to be received by around three per cent of the population in the previous ten years, peaking at the age of 50–60 years as parents pass away. It is also the case that although inheritances were received by substantially fewer households than other types of monetary transfers, the value of bequests was significantly higher.

3. Data

The analysis in this paper uses the Household Income and Labour in Australia (HILDA) dataset.[4] The HILDA is a large panel dataset that has followed Australian households and their occupants annually since 2001. The initial sample of approximately 7,500 households representing approximately 13,000 responding individuals was supplemented in 2011 with a top-up sample of approximately 2,000 households. Respondents in the initial survey are followed over time and individuals that join the original set of 'HILDA households' are also subsequently sampled on an annual basis. To date, 16 waves of data are available and the empirical analysis in this paper uses waves 1 to 14.

The analysis in this paper consider two key questions. First, how is the receipt of a bequest or *inter vivos* transfer from parents related to the wealth accumulation process? Following this we consider how transfers from parents or bequests are related to first-time homeownership. Such analyses requires information on the receipt of such transfers, wealth over time and the initial transition into homeownership. The comprehensive set of questions posed to HILDA respondents provides an opportunity to examine these processes. On an annual basis individuals are questioned about the various sources and values of income over the preceding year. In particular, individuals are asked:

> *' …(D)uring the last financial year did you receive payments from any of these sources? Include both lump sums and more regular payments …'.*

The options available to respondents include '*bequest/ inheritances'* or transfers from '*Parents'*. Hence on an annual basis it is possible to identify the receipt and value of transfers in the form of *inter vivos* gifts from parents and bequests. Those bequests, of course, may have come from individuals other than the respondent's parents.

In addition to the set of questions that are asked on an annual basis, the HILDA data contains a series of special modules that are conducted on a regular basis. The wealth module has been

[4] The Household, Income and Labour Dynamics in Australia (HILDA) Survey was initiated and is funded by the Australian Government Department of Social Services (DSS) and is managed by the Melbourne Institute of Applied Economic and Social Research (Melbourne Institute). The findings and views reported in this report, however, are those of the authors and should not be attributed to either DSS or the Melbourne Institute.

conducted in 2002, 2006, 2010 and 2014. The household questionnaire component of the modules contains questions about amounts held in assets including cash and equity investments; trust funds; life insurance; home and other property assets and debts; and, business assets and debts. The values for these asset and debt items are obtained on a household basis. In addition each respondent in the household is asked some questions about their personal wealth. The value of bank accounts and credit card debt; superannuation; Higher Education Contribution Scheme (HECS) debt[5]; and other personal debts are reported on an individual basis. In section 4, this rich set of data is used to document the evolution of individual and household wealth over time.

In each wealth module individuals are also asked if they currently or have ever owned a home. In turn, those who have ever owned or currently own a property are asked at what age they first acquired such a property. This information facilitates analysis of decisions around entry into first-time homeownership. For the analysis of entry or transition into homeownership reported in section 6, the sample used for the empirical analysis consists of individuals aged between 18 and 65 years of age (in any wave of HILDA) who report purchasing a home for the first time in the period 2002 to 2014, along with those who report never purchasing a property prior to 2014. It is important to emphasise that during the period covered by the analysis males became eligible for the publicly funded age pension at 65 years of age and in almost all cases the initial entry into home-ownership would have occurred by this stage in the life-cycle.[6]

We begin our analysis of the data by describing the importance of *inter vivos* transfers and bequests, both in terms of frequency and magnitude. Table 1 presents count and incidence measures of the number of recipients of transfers (bequests and *inter vivos* transfers), as well as the average amounts received in each wave of HILDA from 2002 through to 2015. The sample used in the construction of Table 1 includes all individuals 18 years and over. Inheritances are received by approximately 1.5 percent of the adult population each year and average amounts received in the form of bequests are significantly larger than *inter vivos* transfers. Conversely, *inter vivos* transfers from parents are received by a significantly larger share of the adult population on an annual basis. There is some evidence of an increasing prevalence of *inter vivos* transfers in the data, perhaps due to baby boomers, a relatively large birth cohort, transitioning into later stages of the life cycle toward the end of the timeframe.[7]

[5] HECS (now known as HELP) is a government loan to help students meet fees for courses in higher education. The loans are index linked to the consumer price index on 1st June each year and repaid through the income tax system.
[6] Over the period of analysis, the age pension eligibility age for women was progressively increased to age 65.
[7] Over the entire period 1.3 (4.0) per cent of adults aged 18 years and over were the beneficiaries of at least one inheritance (*inter vivos* transfer).

TABLE 1: Frequency & magnitude of bequests and i*nter* vivos Transfers 2002[1,2] - 2015.

Year	*Receipt of Bequest*			*Receipt of Parental Gift/ Transfer*		
	Count - weighted[2]	Incidence (%)	Mean amount received ($)	Count-weighted[3]	Incidence (%)	Mean amount received ($)
2002	205,320	1.4	62,866	719,968	4.6	3,962
2003	203,846	1.5	66,548	833,026	5.5	4,233
2004	195,194	1.5	59,831	913,723	5.8	3,472
2005	190,059	1.4	74,655	1,008,855	6.1	3,172
2006	186,556	1.3	115,834	926,099	5.8	3,292
2007	196,693	1.4	65,723	898,631	5.5	4,717
2008	196,674	1.2	86,904	996,869	6.1	4,291
2009	218,921	1.4	65,262	901,648	5.5	3,567
2010	212,264	1.5	77,451	1,106,369	6.6	4,457
2011	205,744	1.3	83,743	1,187,034	6.5	6,787
2012	237,658	1.5	104,043	1,199,314	6.5	5,862
2013	272,195	1.6	87,945	1,314,110	6.9	6,143
2014	255,917	1.6	101,877	1,359,686	7.2	7,018
2015	274,196	1.7	114,099	1,406,121	7.0	6,718

Source: Authors own calculations from HILDA
Notes.
1. Includes all transfers, not just those in excess of $5000.
2. In 2002 answers to questions on inheritances and inter vivos transfers became mandatory (see also footnote 8).
3. Cross section person weights are used to arrive at population estimates. (HILDA Manual Release 7.0, table 38.)

In Table 2 summary statistics for the samples used in the transition or duration analysis reported in section 6 are presented. In table 2, each observation represents a 'person-year' in which the individual is at risk of entering into home-ownership for the first time.[8] A number of patterns are apparent in the data. First, the proportion of males and females is approximately equal and the relatively high proportion of young individuals in the sample reflects the tendency of individuals to move into homeownership as they age. In the duration analysis once homeownership is transitioned into for the first time respondents effectively leave the sample.

The key variables of interest relate to the receipt and value of transfers. In terms of bequests, the findings are similar to the patterns reported in Table 1 with the proportion of individuals

[8] In the empirical analysis reported in section 6 models are presented for individuals, singles and couples separately. Note that for the couples sample, the 'household characteristics' such as age and education are assumed to be those of the male. More details of this analysis are presented in section 5.

who report receiving a bequest in any given year relatively small, representing approximately one percent of individuals. In contrast, in around 10 per cent of 'person year observations' the respondent indicates they receive a transfer from parents. Moreover, while the average value of bequests and parental transfers is similar, among those who *actually receive* a transfer, the value of bequests is substantially larger than *inter vivos* transfers.

TABLE 2: Summary Statistics

	All individuals	Singles	Couples
Female	0.52	0.49	-
Age 18-25	0.47	0.62	0.27
Age 26-35	0.27	0.17	0.42
Age 36-45	0.14	0.10	0.18
Age 46-55	0.08	0.07	0.08
Age 56-65	0.04	0.04	0.05
Education			
Less than HS	0.39	0.35	0.47
Completed HS	0.30	0.40	0.17
Post HS qual.	0.13	0.11	0.16
Undergraduate	0.13	0.11	0.14
Post-graduate	0.05	0.03	0.06
Location			
New South Wales	0.31	0.32	0.30
Victoria	0.24	0.26	0.21
Queensland	0.22	0.19	0.27
South Australia	0.09	0.09	0.09
West Australia	0.08	0.08	0.07
Tasmania/ ACT/ Northern Terr.	0.06	0.06	0.06
Disposable income ($0,000)	2.68	2.31	3.74
Married	0.41		
No. dependent children	-	-	0.99
Received bequest	0.01	0.01	0.02
Bequest amount ($000)	0.40	0.30	0.58
Received *inter vivos* trans	0.10	0.15	0.09
Amount *inter vivos* transfer ($000)	0.43	0.49	0.57
Sample size	45,267	23,268	5,271

Source: Authors own calculations, HILDA waves 1-14.

4. Wealth Accumulation Profiles

The detailed wealth information available in waves 2, 6, 10 and 14 of the HILDA survey provide an opportunity to document how wealth evolves over time and its relationship to the receipt of transfers in the form of bequests, or *inter vivos* gifts from parents. To do so we consider five mutually exclusive sets of individuals characterized by the receipt and timing of

a transfer. The first set of individuals do not report receiving a bequest (or *inter vivos* transfer) over the first 14 waves of HILDA. The second group report receiving a bequest (or *inter vivos* transfer) in waves 1 or 2 of HILDA, that is by the time the first wealth module is collected. The third group reports receiving a bequest (or *inter vivos* transfer) in waves 3, 4, 5 or 6 of HILDA. That is, by the time information in the second wealth module is collected. Other groups that receive a bequest (or *inter vivos* transfer) by the third and fourth wealth module collected in 2010 and 2014 respectively are defined in a similar manner.

In Figure 1 (Figure 2) below we present different aspects of wealth for those that do and do not report receiving a transfer in the form of a bequest (*inter vivos* transfer). In each case, four different aspects of wealth are presented, namely net wealth, gross wealth, the proportion of individuals who report owning a property and the value of the primary home among respondents who own such an asset.

There are some important patterns uncovered by the computations reported in Figure 1a and 1b. First, consider the initial average net wealth of individuals which is clustered in a range between $106,000 and $195,000 (Figure 1a), with non-beneficiaries holding $140,000, close to the sample average of $143,000. The net wealth positions subsequently diverge with evidence that bequest recipients accumulate wealth at a faster rate than non-recipients. By wave 14 the wealth range has widened to between $758,000 (for those receiving bequests in waves 7 – 10) and $314,000 (non-beneficiaries). In general, the net wealth of non-beneficiaries is lower than respondents who had received a bequest, including those that receive bequests late in the study timeframe. A similar pattern is observed when we consider gross wealth (Figure 1b).

FIGURE 1a: Net wealth*

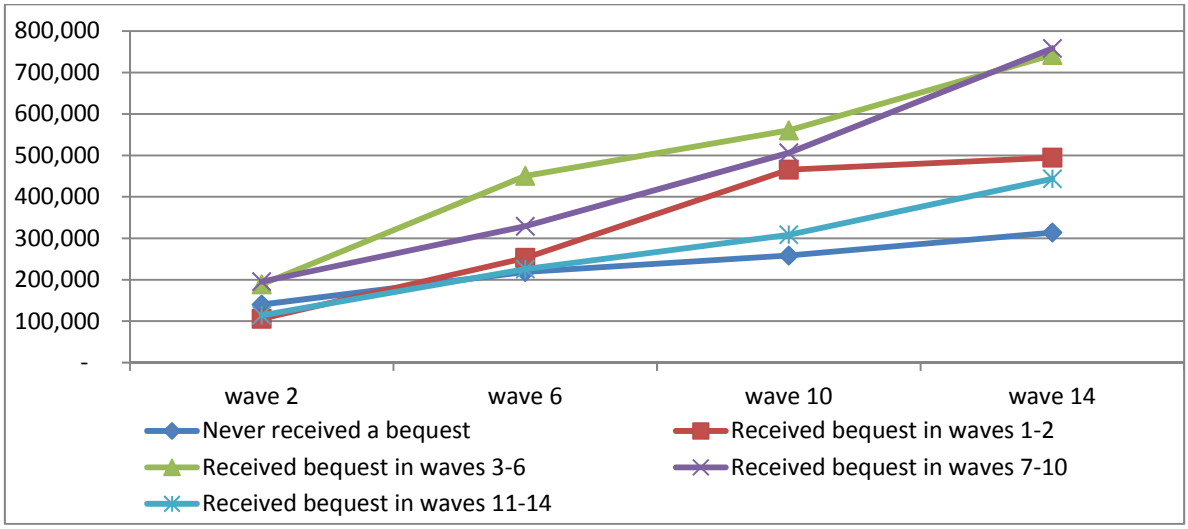
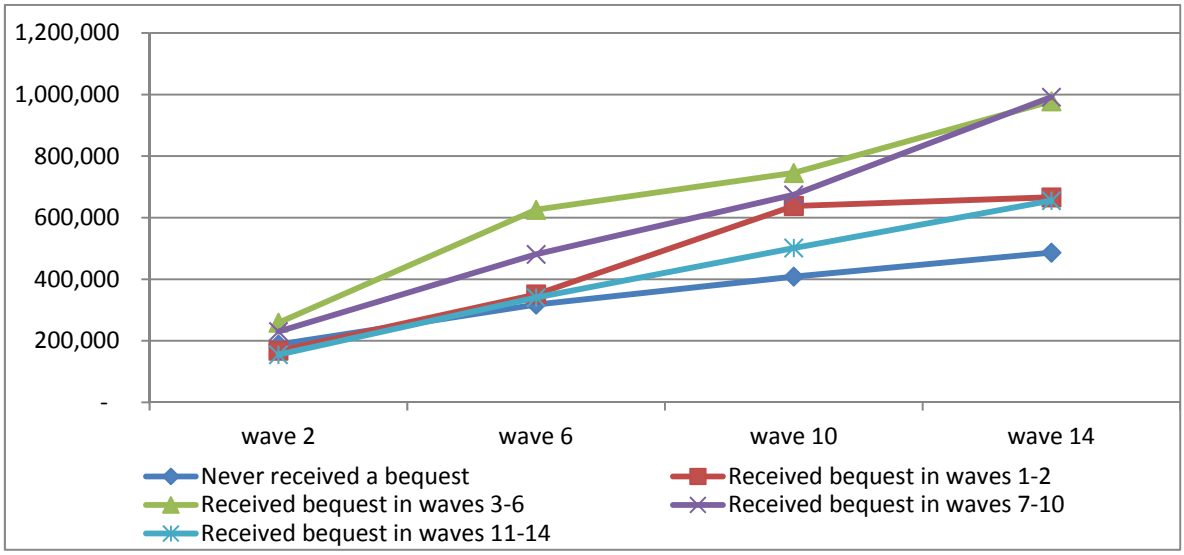


FIGURE 1b: Gross wealth, total assets*



**Notes: For persons living in group households or with parents or relatives, total asset value is set to missing because asset holdings are only reported at the household level and it is therefore not possible to disaggregate assets for individual household members. The net wealth reported in figure 1a is measured for each individual. Balances in savings bank accounts (in one name) and superannuation (occupational pensions) are reported on an individual basis. The value of primary homes, other property, joint savings accounts and total debt are reported on a household basis. The net wealth measure is arrived at by assuming that household values of primary homes, other property and total debt can be attributed to each partner in couple relationships as a collective good, and then added to each partner's individual holdings in savings account and superannuation balances. The net wealth of adult children who live with their parents is calculated from those assets that are reported on an individual basis. Adults members who are living with relatives are treated in the same way as adult children.*

Figures 1c and 1d focus on the ownership of property across our five groups defined with respect to bequest receipt status. Rates of ownership include both the acquisition of primary homes and investments in residential property. The pattern that emerges from Figure 1c is that individuals who report receiving a bequest are more likely to also report being a property owner in each wave in which the wealth module is conducted. Non-bequest recipients start with the lowest rate of ownership and fall further behind those who receive a bequest over time. By wave 14 around one in three non-beneficiaries had attained property ownership compared to more than one in two for each of the bequest recipient groups. In a similar fashion, the housing wealth profiles of bequest recipients lie above that for non-bequest recipients and tend to be somewhat steeper (Figure 1d).

FIGURE 1c: Proportion of persons who own a property (primary home or other property)[#]

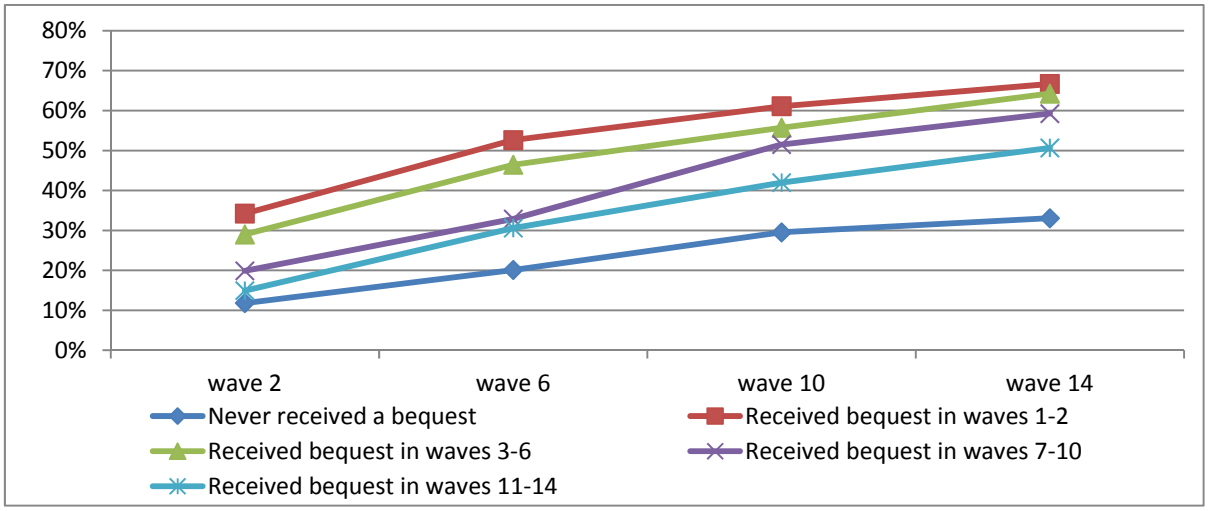
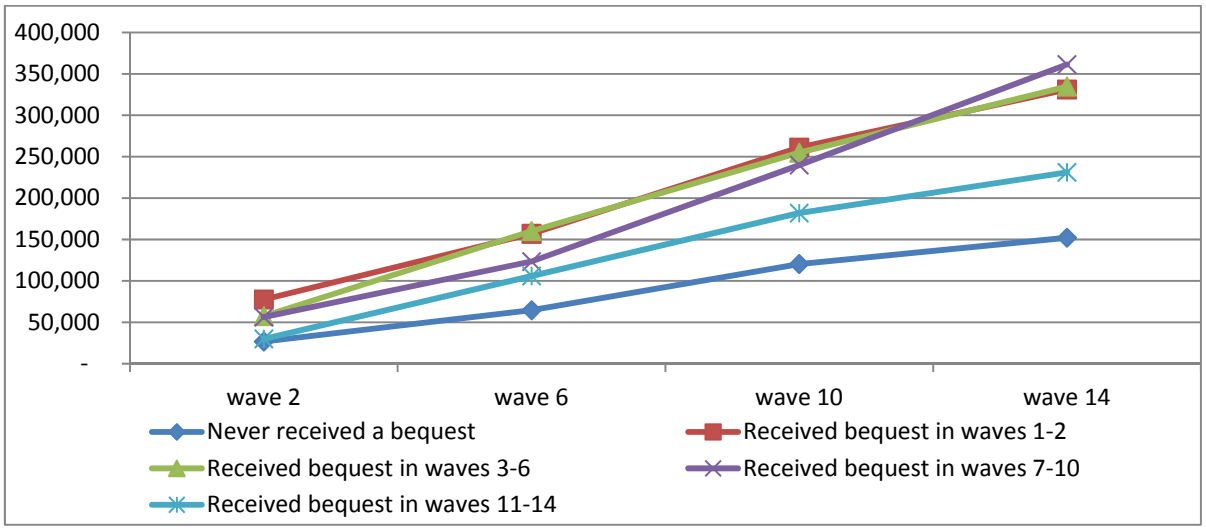


FIGURE 1d: Value of primary home[#]



[#]*Notes: The unit of analysis is persons. For single and couple only households, the unit of measurement is household whereby the value of the asset is attributed to each member of the couple i.e. it is treated as a public good. In the case of children or relatives aged over 15 and living with parents or relatives, the attribution approach does not apply; for these persons the primary home value is recorded as $0. Similarly, for group households, only household members who are reported as being a property home owner receive a home value.*

In Figure 2 we repeat the same exercise, but this time with respect to *inter vivos* parental transfers. Initial net wealth (figure 2a) is again clustered in a narrow range (between $98,000 and $164,000), but subsequently diverges with non-recipients reporting lower levels of net wealth in waves 6 – 14. The net wealth of those who never receive a parental transfer is lowest among all groups in wave 14 ($329,000). Moreover, the timing of parental transfers is systematically correlated with final net wealth in wave 14. Those benefiting from parental transfers earlier in the timeframe (waves 1 or 2) report the highest average net wealth at $685,000 by wave 14, more than twice that of those bypassed by intergenerational gifting. Similar patterns are evident with regard to gross wealth profiles (Figure 2b).

In figure 2c and figure 2d we consider the relationship between ownership of residential properties and parental transfers. In wave 2 rates of property ownership (Figure 2c) range from between six per cent (those receiving transfers in waves 11–14) to a high of 30 percent (recipients of parental transfers in waves 1 or 2). By wave 14 (2014) the ownership gap between non-beneficiaries and those receiving a transfer in waves 1 and 2 increases from 17 percentage points to 45 percentage points, and again there is evidence that the timing of parental transfers is systematically correlated with ownership rates in wave 14. Likewise for the value of the primary home (Figure 2d), there is evidence that the timing of parental transfers is systematically correlated with wave 14 property wealth.

FIGURE 2a: Net wealth*

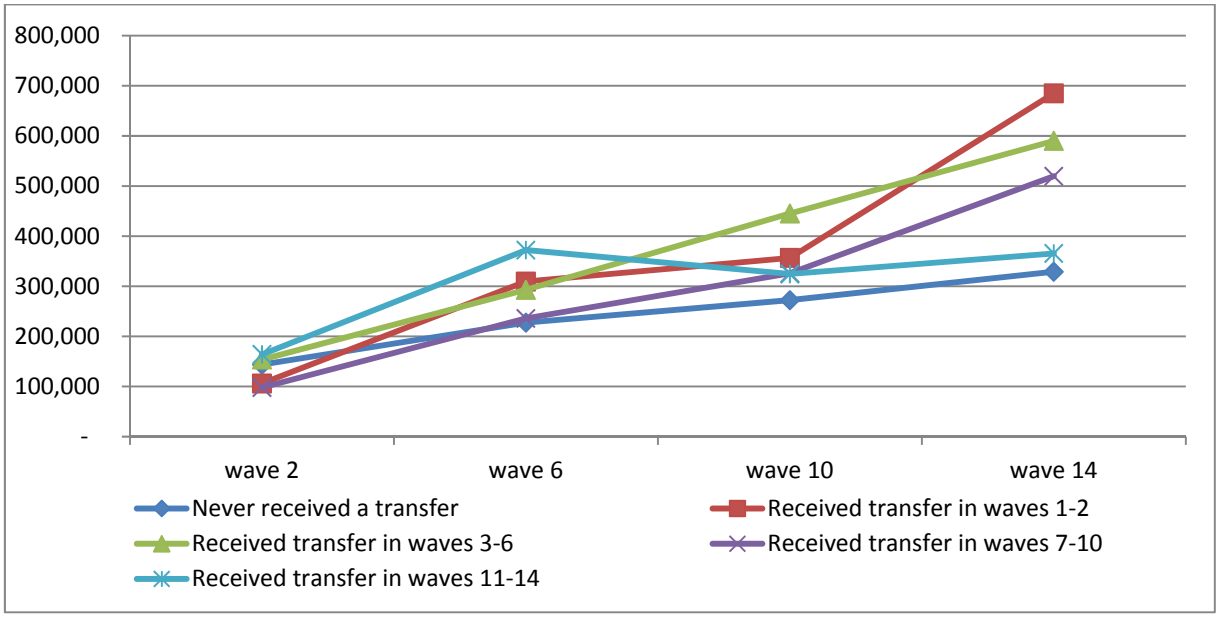
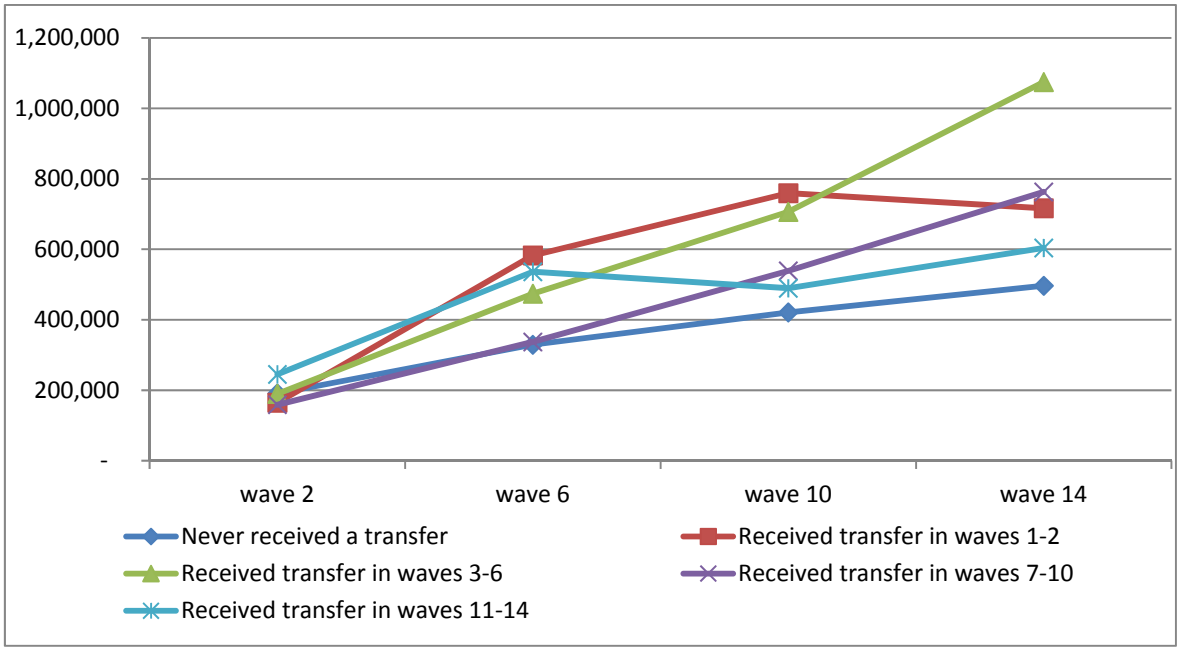


FIGURE 2b: Gross wealth (total assets)*



Notes: Unit of analysis is the person while unit of analysis is the household. For persons living in group households or with parents or relatives, total asset value is set to missing because asset holdings are only reported at the household level and it is therefore not possible to disaggregate assets for individual household members.

There are two important patterns that are revealed in Figures 1 and 2. First, there is evidence that transfers in the form of bequests or *inter-vivos* gifts from parents are associated with steeper wealth accumulation profiles and higher wealth levels. In general, those individuals who receive no intergenerational transfer accumulate less wealth, while those benefiting from transfers (either bequests or *inter-vivos* transfers) earlier tend to accumulate greater levels of wealth over time. Nonetheless it is important to emphasise that such patterns are unconditional in that they do not control for factors such as the age or education of the recipient, the size of the transfer, or how such transfers are used. The second pattern of interest revealed in Figures 1 and 2 concerns the relationship between transfers and home ownership. Figures 1c and 1d (2c and 2d) suggest that beneficiaries of a bequest (*inter-vivos* transfer) are more likely to acquire ownership of property and accumulate greater levels of housing wealth. Given the central role played by housing wealth in retirement, and its privileged treatment under the Australian tax and transfer system, it is this relationship which is considered next.

FIGURE 2c: Proportion of persons who own a property (primary home or other property)[#]

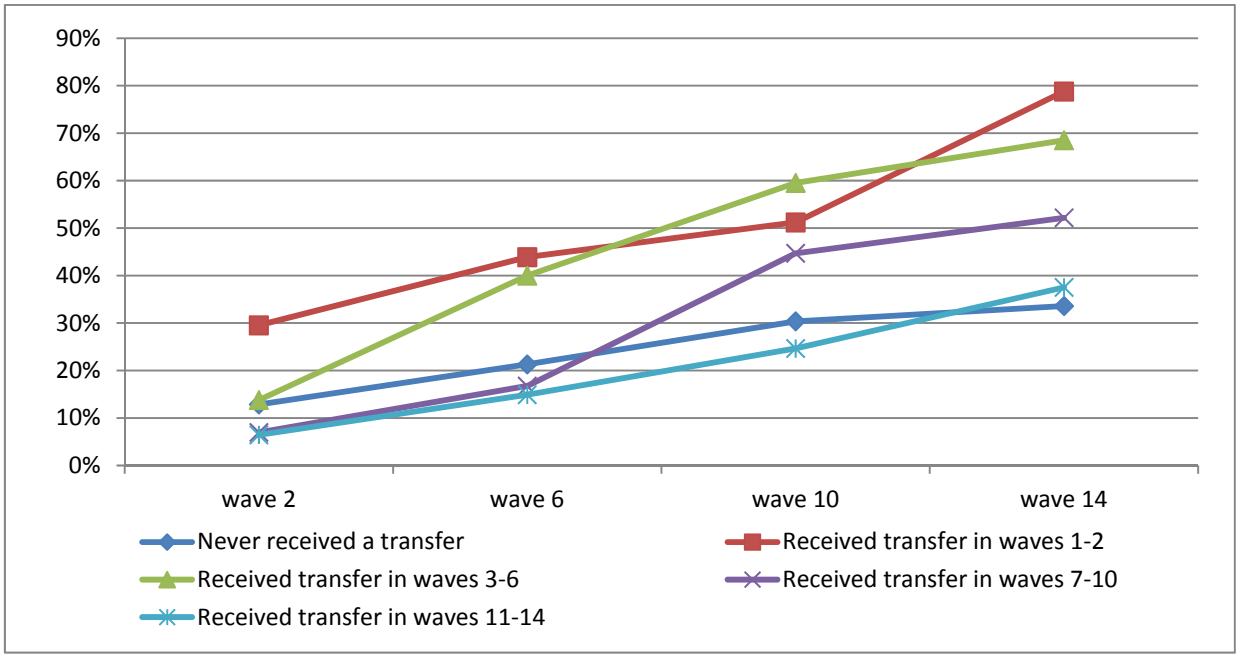
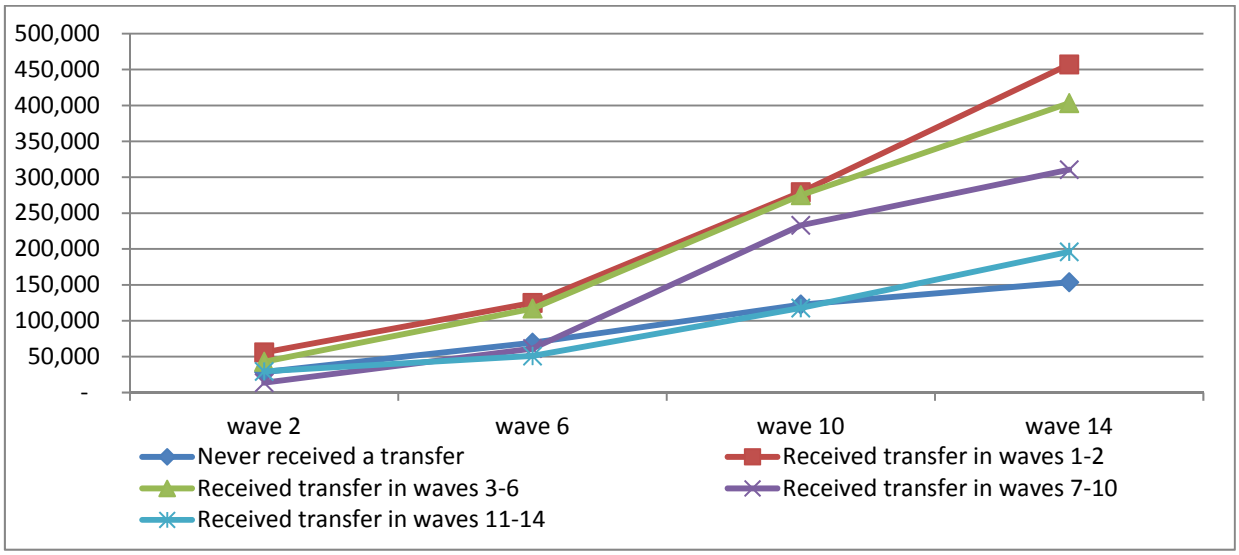


FIGURE 2d: Value of primary home[#]



#Notes: The unit of analysis is persons. For single and couple only households, the unit of measurement is household whereby the value of the asset is attributed to each member of the couple i.e. it is treated as a public good. In the case of children or relatives aged over 15 and living with parents or relatives, the attribution approach does not apply; for these persons the primary home value is recorded as $0. Similarly, for group households, only household members who are reported as being a property home owner receive a home value

5. Duration Analysis - Empirical Methodology

In a similar fashion to Guiso and Japelli (2002), the analysis in this paper focuses on individuals or couples that have not previously entered into home ownership, and considers the time until a transition into first home ownership occurs.[9] It is the length of this spell in 'non-homeownership' that is of interest and how the transition into first home ownership is related to the receipt and or value of a transfer such as a bequest or parental gift. The transition into home-ownership is modelled using a hazard rate framework. The hazard rate methodology can be conceptualised by considering a group of individuals that have not yet entered into owner-occupation for the first time. In each period these individuals can be considered 'at risk' of transitioning into another state, namely home ownership. The hazard rate is a conditional probability—that is, it is the proportion of households (or individuals) which transition into first-time ownership *conditional* on being eligible to experience first-time home ownership. Recall that the HILDA data is longitudinal in nature and the sample consists of a series of person-year observations. In some cases, individuals will not be observed to enter into first home ownership. This may be because the data collection period ends prior to transition into the state of interest (first home ownership), or because the observation attrites prior to the end of the data collection period. In either case, the observation is treated as a censored observation.

An important advantage of the HILDA data used in this paper is its panel nature. This provides a number of advantages over the analysis in earlier studies such as Guiso and Japelli (2002) that relied on cross-sectional data in which respondents recalled the timing of transfers and entry into homeownership. The HILDA wealth modules allow for the identification of individuals that have not purchased a home prior to 2001, or report purchasing their first home after the HILDA survey began. For each of those individuals it is possible to identify the year in which home ownership is first attained. Moreover, it is possible to identify if and when the individual receives a transfer in the form of a parental gift or a bequest. As noted in section three, the value of any such transfer is also identified. Additionally, the panel nature of the data allows personal characteristics of the individual such as disposable income, marital status and geographic location to be identified and unlike the analysis in Guiso and Japelli (2002), this facilitates the incorporation of time varying covariates in the empirical specification.

Recall that the analysis sample for the duration models consists of individuals aged 18 years or older in 2001 (wave 1 of HILDA) who had not previously entered home ownership, along with those join the original set of HILDA households in subsequent waves and had not previously

[9] The analysis is undertaken for all individuals aged between 25 and 65. As noted in section 3, separate analyses are presented for those individuals who remain single or 'unpartnered' during the period of analysis along with couples. Couple households are defined as two individuals (married or in a common law relationship) who identify as a couple during the period of analysis. The latter specifications reflect the likelihood that home ownership decisions are often made jointly by individuals within a household setting.

purchased a home.[10] There are a variety of ways in which hazard rates can be modelled from an econometric perspective. While some approaches impose specific functional forms on the hazard rate, the approach adopted in this paper is one that provides maximum flexibility in the shape of the hazard function. In particular, a proportional hazard model similar to that described in Meyer (1990) and discussed in Lancaster (1990, pp.172–208) is estimated to describe the time until the individual enters home ownership for the first-time. The form of this hazard function is as follows:

$$h_n(\tau) = h_0(\tau)\exp\{z_n(\tau)'\beta\} \quad (1)$$

where $h_n(\tau)$ is the hazard rate for individual n, $h_0(\tau)$ is the 'baseline' hazard common to all individuals, $z_n(\tau)$ is a vector of observable characteristics that may vary with time, and β is a vector of parameters to be estimated.

Importantly, duration models such as this allow for the incorporation of non-time varying and time-varying covariates which may shift the hazard rate. An example of a non-time varying covariate is gender. Time-varying covariates include the receipt (or value) of an *inter vivos* parental transfer, the receipt (or value) of a bequest, income and location. In Table 3 we present the summary statistics for the set of spells used in the analysis of transitions into first-time homeownership for individuals, singles and couples. The first sample consists of the set of all individuals in the HILDA data aged between 18 and 65 years during the period 2001 to 2014. The second focuses on those individuals also aged between 18 and 65 years of age who remain single or unpartnered throughout the period of analysis. The final sample consists of couples, defined as two individuals (married or in a common-law relationship) who identify as a couple during the period of analysis.

As expected, the proportion of spells that are censored is lower for the couple sample which suggests that couples are more likely to move into first-time homeownership than singles. Such a pattern likely reflects, in part, the higher resources available to couple households. The summary statistics in Table 3 indicate that the likelihood of receiving a transfer from parents during a spell prior to entering homeownership is substantially higher than receiving a bequest. Nonetheless, as noted in Section 3, when received the value of gifts are substantially smaller in magnitude than the value of bequests.

[10] This includes household members who turn 18 years of age in the period 2002 to 2014.

TABLE 3: Characteristics of Spells

	Individuals	*Singles*	*Couples*
No spells	10,576	6,247	1,794
Proportion censored spells	0.717	0.893	0.692
Proportion females	0.517	0.501	-
% Spells in which bequest received	0.038	0.030	0.054
Value of bequest if received ($)	44,428	36,503	30,682
% Spells in which transfer received	0.246	0.307	0.203
% Spells in which parental transfer >$12500 received	0.019	0.018	0.027
Total value of transfers if received ($)	7,464	5,820	10,258

Source: Authors own calculations, HILDA waves 1-14.

6. Results

Preliminary analysis of the spells prior to entering into homeownership is presented in the form of the survivor functions depicted in Figures 3 to 5. The survivor functions represent the probability that a non-homeowner will 'survive' or remain in non-homeownership past year *j* of a spell. As additional households transition into homeownership for the first time, the survivor function approaches zero. For each sample, survivor functions are presented based on the receipt of a bequest, the receipt of an *inter vivos* transfer from parents, and, the receipt of a large *inter vivos* transfer from parents defined as a transfer greater than $5,000. In each case, survivor functions are presented for those who do and do not receive a transfer or bequest at any time during the spell.

The survivor functions suggest that in general, the receipt of a transfer in the form of a bequest or an *inter vivos* transfer increases the likelihood that the individual (or couple) transitions into homeownership. Typically, the survivor function for those who report receiving a bequest (bequest=1) or a large *inter vivos* parental transfer (lptrans=1 or h_lptrans=1) lies below that for non-recipients. That is, recipients are less likely to remain in the 'non-ownership' state. Confidence intervals around the survivor functions are also presented but it is important to stress that the difference in the survivor functions are not always statistically significant. In addition, there is less evidence that recipients of an *inter vivos* parental transfer (ptrans=1 or h_ptrans=1) are more likely to transition into homeownership, with the survivor functions for individuals, singles and couples crossing at various points. Additional insight into the relationship between intergenerational transfers and the transition into first-time homeownership is provided by estimates from the duration models.

FIGURE 3: Survivor Function - All individuals

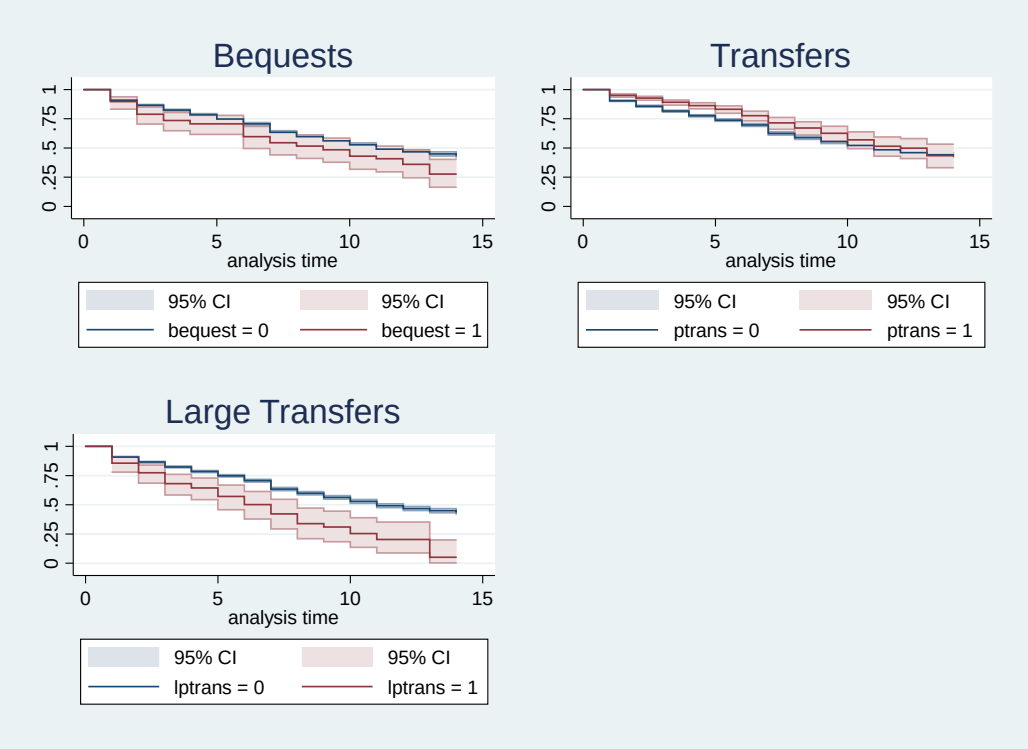


FIGURE 4: Survivor Function - Singles

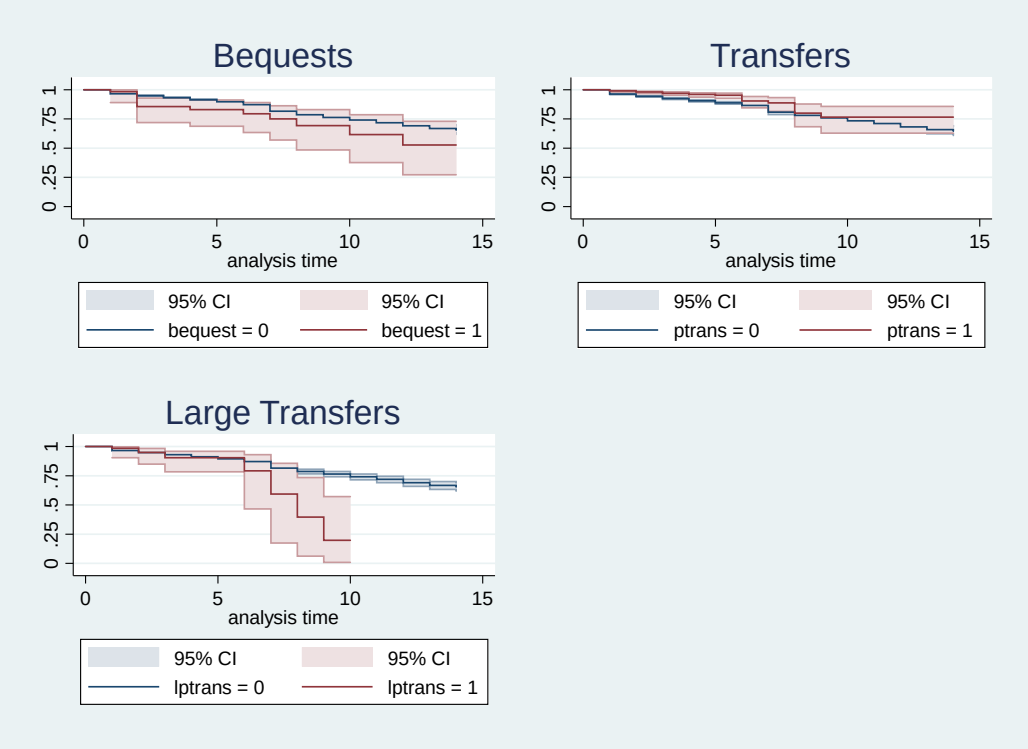
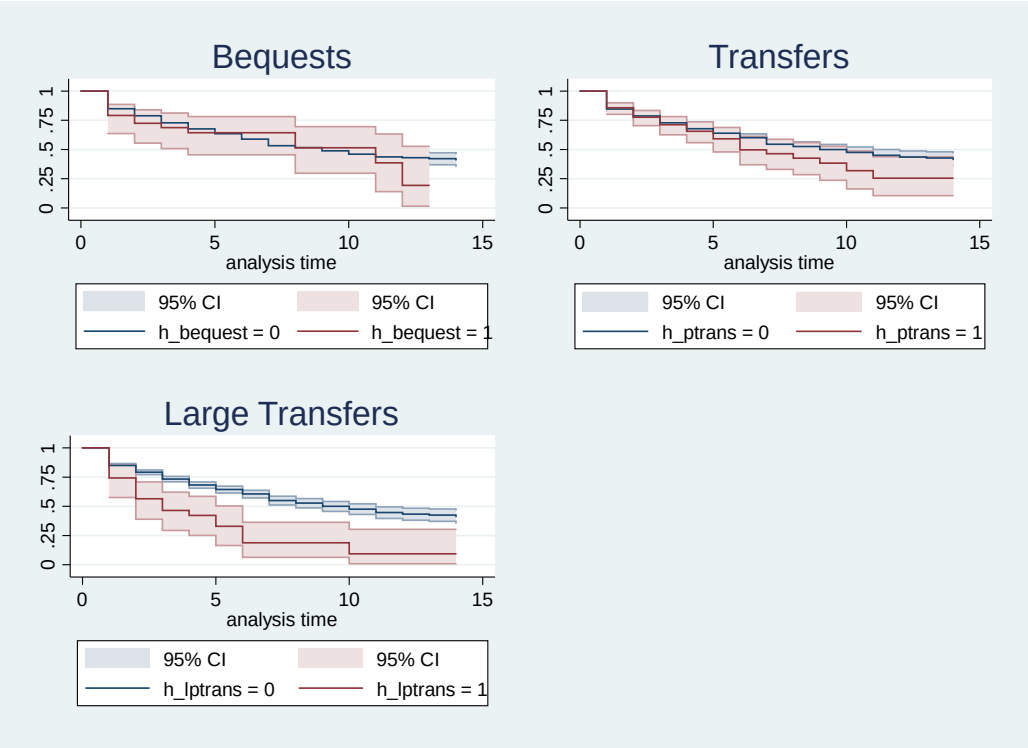


FIGURE 5: Survivor Function - Couples



Duration Model Estimates.

The duration estimates are reported in Table 4 (bequests) and Table 5 (*inter vivos* transfers) for all individuals (panel A), singles (panel B) and couples (panel C). Only a subset of results associated with the transfer variables are presented in Tables 4 and 5.[11] The results for other covariates included in the specification are generally consistent with *a priori* expectations. For example, individuals aged between 26 and 45, the traditional time that first-time home ownership is attained in Australia, exhibit a significantly higher hazard rate into this tenure *ceteris paribus*. Similarly, higher levels of education, disposable income and being married or partnered (for all individuals) are associated with a higher probability of transition into first-time homeownership.

In the duration models information about transfers is included in different ways to capture the receipt of a transfer, or, the value of the transfer received. The receipt of a bequest is flagged either through the contemporaneous receipt of the bequest (column (1)) or the receipt of a bequest lagged one period (column (2)). Given the substantial fixed costs associated with the purchase of a house, the receipt of a transfer may have a delayed impact on the transition into

[11] Full results are available on request.

homeownership, and the receipt of a bequest in the previous period is designed to capture this. In Table 4 we also report the coefficients on specifications that incorporate measures associated with the value of bequests received (column (3)), ir whether a large bequest (>$10,000) has been received (columns (4) and (5)).

Amongst all individuals (panel A), the receipt of a bequest is associated with an increase in the hazard of approximately 71 per cent (column 1) *ceteris paribus*.[12] That is, the bequest increases the conditional probability that an individual is observed to transition into first-time homeownership in the year in which the bequest is received by approximately 70 percent. To put this into context, the predicted hazard rate for individuals in the sample who are in their fifth year of a spell of non-homeownership is equal to approximately 0.048. For those individuals in the fifth year of their spell who receive who receive a bequest the predicted hazard rate is equal 0.082, *ceteris paribus*. The receipt of a bequest in the previous year (column 2) also has a significant albeit somewhat smaller impact on the transition rate into first-time homeownership. There is also evidence that the value of the bequest received has an impact on the transition into first-time homeownership among all individuals (column 3). Recall that the average value of a bequest among those who receive them is approximately $44,000 (Table 3). The coefficient on the amount of the bequest received (beqamt) is 0.004, implying that an average bequest will increase the hazard by approximately 20 percent. This suggests that the effect of a bequest is nonlinear and this is borne out by the specification that includes a measure indicating whether the individual reports receiving a large bequest (column 4). There the effect of the receipt of a large bequest is large (coefficient 0.935) and highly significant.

Results for those respondents who remain single throughout the period of analysis and couples are reported in Table 3, panels B and Panel C respectively. Singles' estimates are similar to those reported for all individuals, with the receipt of a bequest and the amount of the bequest positively and statistically significantly related to the hazard into first-time homeownership. For singles that do not report receiving a bequest the predicted hazard at the fifth year of a spell is equal to 0.018, and 0.035 for those who do report receiving a bequest. The transitions of single individuals reporting the receipt of a large bequest are accelerated more than other beneficiaries, their hazard into first-time homeownership being lifted by almost a factor of three. For couples, the effect of a bequest received by one member of the couple has a positive impact on the transition into first-time homeownership that is similar in magnitude to that reported for all individuals. As was the case with individuals and singles, the receipt of a large bequest and the amount of the bequest are important determinants of the transition into first-time homeownership for couples.

[12] The effect on the hazard is calculated as $exp^{0.538} \approx 1.71$.

TABLE 4: Duration model estimates (bequests)

Panel A – All individuals	(1)	(2)	(3)	(4)	(5)
Received bequest (*t)*	0.538*** (0.134)	-	-	-	-
Received bequest (*t-1)*	-	0.353* (0.188)	-	-	-
Amount bequest ($0,000)	-	-	0.004*** (0.001)	-	-
Received large bequest (*t)*	-	-	-	0.844*** (0.154)	-
Received large bequest (*t-1)*	-	-	-	-	0.518** (0.239)
Panel B – Singles	(1)	(2)	(3)	(4)	(5)
Received bequest (*t)*	0.645*** (0.294)	-	-	-	-
Received bequest (*t-1)*	-	0.679* (0.362)	-	-	-
Amount bequest ($0,000)	-	-	0.010*** (0.002)	-	-
Received large bequest (*t)*	-	-	-	1.071*** (0.323)	-
Received large bequest (*t-1)*	-	-	-	-	0.727 (0.508)
Panel C – Couples	(1)	(2)	(3)	(4)	(5)
Received bequest (*t)*	0.630** (0.251)	-	-	-	-
Received bequest (*t-1)*	-	0.202 (0.359)	-	-	-
Amount bequest ($0,000)	-	-	0.004** (0.002)	-	-
Received large bequest (*t)*	-	-	-	0.683** (0.341)	-
Received large bequest (*t-1)*	-	-	-	-	0.722 (0.514)

Notes: Specifications includes a set of controls for age, education, location (State or Territory), disposable income and gender (for all individuals and singles). For couples, the receipt or amount of a bequest captures bequests received by either member of the couple.

Standard errors are in parenthesis; *** denotes significance at 1%, ** denotes significance at 5%,* denotes significance at 10%,

In Table 5 we report the coefficients on specifications that incorporate measures of *inter vivos* gifts from parents. Amongst all individuals (panel A), the receipt of a transfer is associated with a *decrease* in the hazard of approximately 24 percent (column 1) *ceteris paribus*.[13] That is, the transfer is associated with a *lower* probability of transition into first-time homeownership. In contrast, larger values of the transfer received accelerate transitions into first-time homeownership among all individuals (column 2), as does the amount of the *inter vivos* transfer received in the previous period (column 3). This pattern of coefficients is most likely explained by the nature of *inter vivos* transfers from parents. Recall that the number of respondents who report receiving an *inter vivos* transfer from parents is substantially greater than those who receive a bequest, though the average amount received is significantly smaller. An examination of the coefficient on a measure that captures if a large parental transfer (greater than $12,500) has been received (column 4) indicates a large and positive coefficient. In this case, the receipt of such a transfer increases the hazard into first-time homeownership by approximately 65 per cent, *ceteris paribus*. This suggests that the majority of transfers from parents are relatively small and are not intended to, nor actually do they, facilitate transition into homeownership. As such, *inter vivos* transfers from parents do not in general impact on the hazard into first-time homeownership. Rather, one possible explanation is that the results are consistent with a more strategic role for *inter vivos* transfers, with larger housing related transfers being targeted for this purpose.

The results reported for singles (Panel B) and couples (Panel C) in Table 5 are similar to those for all respondents. That is, the receipt of any transfer is associated with a lower probability (singles) of transition into homeownership, or is insignificant (couples), while the value of the transfer and the receipt of a large transfer are generally associated with positive impacts on the transition into first-time homeownership. In the case of singles, it is large transfers received in the previous period rather than contemporaneously that are associated with a significantly higher transition into first-time homeownership. Conversely, for couples it is contemporaneous large transfers that are associated with a significantly higher hazard or transition into first-time homeownership.

[13] The effect on the hazard is calculated as $exp^{-0.27} \approx 0.76$.

TABLE 5: Duration model estimates (*inter vivos* transfers)

Panel A – All individuals	(1)	(2)	(3)	(4)	(5)
Received transfer (*t*)	-0.117*** (0.082)	-	-	-	-
Amount transfer ($0,000)	-	0.010*** (0.001)	-	-	-
Amount transfer ($0,000) (*t-1*)	-	-	0.009** (0.003)	-	-
Received large transfer (*t*)	-	-	-	0.608*** (0.134)	-
Received large transfer (*t-1*)	-	-	-	-	0.394** (0.189)
Panel B – Singles	(1)	(2)	(3)	(4)	(5)
Received transfer (*t*)	-0.409** (0.190)	-	-	-	-
Amount transfer ($0,000)	-	0.007 (0.005)	-	-	-
Amount transfer ($0,000) (*t-1*)	-	-	0.013*** (0.004)	-	-
Received large transfer (*t*)	-	-	-	0.349 (0.339)	-
Received large transfer (*t-1*)	-	-	-	-	0.801** (0.341)
Panel C – Couples	(1)	(2)	(3)	(4)	(5)
Received transfer (*t*)	-0.095 (0.142)	-	-	-	-
Amount transfer ($0,000)	-	0.011*** (0.003)	-	-	-
Amount transfer ($0,000) (*t-1*)	-	-	-0.007 (0.014)	-	-
Received large transfer (*t*)	-	-	-	0.999*** (0.203)	-
Received large transfer (*t-1*)	-	-	-	-	-0.774 (0.504)

Notes: Specifications includes a set of controls for age, education, location (State or Territory), disposable income and gender (for all individuals and singles). For couples, the receipt or amount of a bequest captures bequests received by either member of the couple.

Standard errors are in parenthesis; *** denotes significance at 1%, ** denotes significance at 5%,* denotes significance at 10%,

The empirical analysis suggests that intergenerational transfers in the form of bequests or *inter vivos* transfers from parents have important implications for potential first-time home buyers. The duration models suggest that transfers hasten the transition into owner occupation, potentially alleviating some important credit constraints faced by intending purchasers. Nonetheless, it is important to stress that it is not possible to rule out the possibility that individuals who report receiving a bequest are simultaneously bequeathed a residential property. Hence, it is possible that the duration models overstate the impact of bequests on entry into first-time homeownership.

7. Conclusion

Whether intergenerational transfers help lift people into home ownership is an important question, especially from an Australian perspective. Housing equity is the most important asset in most Australians' wealth portfolios, and wealth accumulation is critical to the standard of living they can expect in retirement. The low level of public pensions, their selective rather than universal availability, and a mandatory occupational pension system that has yet to reach maturity, are mainly responsible for these features of Australian retirement incomes policy.

Home ownership has been the traditional and favoured vehicle for wealth accumulation and hence horizontal redistribution across the life cycle to support consumption in later years of life. This role is in part due to generous tax concessions extended to Australian home owners, but is also attributable to housing asset's ability to fulfill insurance and bequest functions throughout the life cycle. If saving propensities are unaffected, and intergenerational transfers hasten transitions into first-time home ownership, beneficiaries may be expected to accumulate more wealth than their counterparts and be in a better position to finance a prosperous retirement.

Our measurement of wealth profiles using a large panel data set verifies expectations of more rapid wealth accumulation among Australian beneficiaries of intergenerational transfers. It also confirms the important role that property ownership plays as a generator of wealth, with higher property ownership rates found among heirs and recipients of *inter vivos* transfers. In this paper, we have also modeled the relationship between intergenerational transfers and the behavior of first time home buyers in Australia. Although bequests are received by relatively few individuals on an annual basis, there is evidence that they are important for facilitating entry into home ownership. Similarly, *inter vivos* transfers from parents appear to be used strategically to enable entry into owner occupied housing. While far more individuals report the receipt of transfers, it is larger transfers that are associated with earlier transitions into home ownership..

The findings in this paper have important policy implications. Like many other countries, home ownership is the dominant form of tenure in Australia that is supported by implicit and explicit

subsidies via the tax and transfer system. Significantly, the accumulation of housing wealth has been seen as a critical part of planning for retirement in Australia. In light of the decline in the home ownership rate among younger cohorts of Australians, there is a potential for existing wealth inequalities to be accentuated over time and for additional burdens to be placed on the transfer system as the population ages. While intergenerational transfers can alleviate the potential credit constraints faced by buyers, they also have the potential to exacerbate existing inequality if those who have accumulated large asset portfolios are more likely to provide assistance to younger cohorts.

The analysis in this paper has implications for tax and transfer policy. As an asset housing is taxed favorably in Australia, with owner occupied housing being exempt from capital gains tax and the imputed rent not forming part of assessable income. Such measures may need to be reviewed if ownership rates change significantly over time placing greater demands on the system of income support. More generally, in the absence of a broad based wealth tax such as an inheritance tax, intergenerational transfers have the potential to exacerbate existing inequalities over time.

There are a number of ways that the present analysis could be extended. One avenue that parents provide transfers to children is through in-kind provision of housing in the form of co-residency. Identifying this and placing a value on it would provide additional insight into how intergenerational transfers facilitate home ownership. Similarly, it would be useful to try and identify how transfers impact on other behaviours such as investment in education and saving. Both of these have potentially important, albeit indirect, implications for housing outcomes. The availability of an increasingly longer panel in the HILDA may permit such analysis in the future.

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