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Household insurance and financial stress: do households maintain coverage on their most important assets?

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Abstract

Rising home insurance costs are exposing new affordability risks that threaten the capacity of households to secure their most important asset. Breaking with conventional framing of a linear relationship between income and insurance, we explore the causal relationship between financial stress and insurance coverage and the role of tight cashflow positions therein. Using Australian panel data, we find that financial stress and tight balance sheet positions are associated with reduced expenditure on home and vehicle insurance with significance across the income distribution. Our results hold with detailed controls in place for the value of assets, suggesting that households reduce coverage in the wake of a shock to shore up household finances. By demonstrating a link between financial stress and underinsurance, our results contribute new evidence on the income dynamics of underinsurance. We show that affordability issues arise amongst households at all income levels, pointing to an important new set of risks that are driven by financial stress.

In the wake of each new weather-related disaster, media reports describe the devastation of families who have lost their homes and don't have insurance with which to repair or rebuild. The failure of households to adequately insure their homes is usually explained in terms of market frictions on the supply side (Kousky and Cook, 2012; Hudson et al., 2017) and behavioral limitations on the demand side (Kunreuther and P auly, 2004; Dumm et al., 2020; Botzen and van dr Bergh, 2012), against a backdrop of income constraint. For households whose incomes fall below a certain point, insurance is seen as a discretionary expense that is purchased only after basic needs are met (e.g. Michel-Kerjan and Kunreuther, 2011; Kunreuther and Michel-Kerjan, 2009: 122; Hudson et al., 2016; Tesselaar e al. 2020; Kousky and Kunreuther, 2014; Kousky et al., 2020). Insurance affordability issues are hence widely framed in terms of the difficulties faced by low-income households, posing affordability as a static problem of income status.

Recent empirical research on insurance demand, however, breaks with this framing of insurance affordability by identifying the role of temporality in insurance decisions (Casaburi and Willis, 2018; Ericson and Syndor, 2018). As this literature demonstrates, if expected utility is seen as a flow rather than as stable and unchanging (Gollier 2003), then affordability may change over time, alleviating rigid binary categories of households as insured/uninsured as lottery outcomes are rearranged with the ebb and flow of expected utility. These studies show, for example, that uptake of crop insurance rises if premiums can be paid at harvest rather than the sowing season, because households are least liquidity constrained at that point and thereby enjoy greater utility from insurance then the period earlier, when cashflow was tight (Casaburi and Willis, 2018; see also Liu and Myers, 2016).

This paper explores this temporality in terms of financial stress in an advanced economy setting. Just as agricultural households may face cyclical liquidity constraints that reorder the value of insurance over the year, a shock that puts a household into stress might pose a temporary budget constraint that prompts the reevaluation of insurance coverage. The movement of households in and out of coverage in response to shifting budget constraints casts underinsurance as an episodic rather than static phenomenon, which in turn reframes the relationship between income and underinsurance by disrupting the linear patterns of income and insurance coverage that are conventional in the literature. The significance of this contribution lies not only in the new risks that the analysis identifies in relation to financial stress but also in the important work of understanding the dynamics of underinsurance given the wider context of increasing weather-related disasters driven by climate change (Tesselaar et al., 2020; ACCC, 2020). Moreover, this is the first paper that we know of that identifies fluidity in household decisions to insure property as a result of financial stress outside of a developing economy context.

This paper uses Australia's national panel survey, the Household, Income and Labour Dynamics in Australia (HILDA) Survey, which allows us to track individuals' insurance expenditure before and after they have experienced financial stress while controlling for individual fixed effects as

well as changes in insurable assets. Our results identify significant patterns of insurance expenditure reduction following the experience of financial stress, suggesting that financial stress prompts households to reassess the benefits of insurance. These results remain valid after controlling for change in insurable assets. As such, we guard against the possibility that we are observing declining insurance coverage as households reduce the value of their assets, for example by selling a car or downsizing their home in response to entering into stress. We also guard against the possibility that the reductions in coverage that we observe might in fact be the result of households shopping around for cheaper premiums without reducing coverage. During the period under analysis, average premiums rose by 25-45%.[1] This suggests that even if a household were to shop around for a cheaper premium, they would (on average) need to secure a saving of a similar magnitude over the period in order to even only maintain coverage without seeing their premium rise. More specifically, however, our analysis rules out shopping around for cheaper premiums as a dominant force behind our results by checking the intensity of insurance expenditure reductions. We find that almost 80% of households who reduced their insurance expenditure in the wake of financial stress made cuts of more than 20% over the period. In the context of steep rises in premiums over that period, this suggests that the patterns of reduced expenditure that we identify reflects substantial reductions in coverage. Hence, we conclude that by cutting costs in order to shore up their finances, households are driven by financial stress to reduce insurance coverage in meaningful ways.

Heterogeneity analysis assesses the role of income and tight cashflow on households' tendency to undertake this reduction in insurance spending in the wake of financial stress. Although our results conform to those of other studies insofar as they find that in general, income is positively correlated with insurance expenditure (Wang et al., 2017; Landry and Jahan-Parvar, 2011; Browne and Hoyt, 2000; Gropper, 2021), our results show that reduced insurance expenditure in the wake of financial stress is not solely the domain of low-income households. In fact, the relationship between financial stress and reduced insurance expenditure that we identify holds across the income distribution, including middle-income and even relatively wealthy households, as well as those that are less well off. These patterns are also particularly strong for cashflow constrained households. Our results show that households with a higher proportion of expenditure tied into contractual payments, such as Chetty and Sziedl's 'commitment goods' (2007), are more likely to reduce insurance coverage in the wake of experiencing stress.

These findings suggest that household capacity for consumption smoothing in the face of financial stress is less effective than might be assumed, even amongst wealthier households. In this light, financial stress poses considerable potential economic harm. A cashflow squeeze in a relatively wealthy household, for example, might have devastating consequences if that household were to cut their home insurance at an inopportune time. As the stakes rise, both in higher premiums and more common and more costly weather-related disasters (Tesselaar et

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[1] See Insurance Council of Australia data at www.insurancecouncil.com.au/industry-members/data-hub.

al., 2020), the potential for households to dip out of insurance, even if only temporarily, is increasingly problematic. The paper thus contributes to emerging literature on temporality in insurance at the same time as it reveals previously unobserved patterns of risk in the behaviour of financial stressed households and provides new insight into the dynamics of underinsurance.

The first section of the paper discusses the existing literature on insurance. The second section presents background context and the data. The third section presents the econometric analysis and the final section presents the discussion and conclusion.

Literature

It is well established in the empirical literature on insurance demand in developing economies that liquidity constraint can play a key role in reducing demand for smallholder agricultural insurance. Lui et al. (2016) and Casaburi and Willis (2018), for example, look at the timing of premium payments for cattle and crop insurance in China and Kenya respectively, finding that demand increases when the premium can be paid at times in the agricultural cycle when households are less liquidity constrained. Cole et al. (2013) find similar results in relation to rain insurance in India.

In the advanced economy setting, liquidity constraint is considered in life and health insurance demand. The emergency funds hypothesis links the incidence of lapse in households' life insurance contracts to the experience of a shock by which households either can't afford to continue paying the premium or require funds that are accessible by 'cashing in' a life insurance contract (Fier and Liebenberg, 2013; Belaygorod, Zardetto and Lui, 2014; Gottleib and Smetters, 2021). For health insurance, new theoretical work identifies welfare gains for cashflow constrained households from smoothed out premiums (Ericson and Syndor, 2018) and smaller, more frequent deductibles (Hong and Mommaerts, 2021), which minimize potential expenditure shocks.

Yet research on demand for property insurance has so far not explored the impact of financial stress either in terms of a shock, such as in the emergency funds hypothesis, or of cyclical or persistent liquidity constraint, such as that considered in relation to health insurance and agricultural smallholder insurance. Instead, the relationship between income and property insurance coverage has been interpreted in linear terms by which affordability is a problem of low income (Michel-Kerjan, 2011; Kunreuther and Michel-Kerjan, 2009:122; Hudson et al., 2016; Tesselaar et al. 2020). Research finds, for example, that higher income households are both more likely to insure (Wang et al., 2017; Kriesel and Landry, 2004; Atreta et al 2015; Cannon et al., 2020) and tend to spend more on insurance (Landry and Jahan-Parvar, 2011; Browne and Hoyt, 2000). By posing an income threshold of affordability, this framing neglects the possibility of transitory liquidity constraint, instead positing underinsurance as a static binary linked to an income-measure of poverty.

This approach fails to take account of developments in macroeconomic research that posit liquidity constraint an important factor in household behaviour. Contributions such as Kaplan,

Violante and Weidner's (2014) work on 'wealthy hand to mouth households' for example, or Mian and Sufi's household debt deleveraging (2015), point towards changing dynamics in the household sector by which financial stress has shifted from being an indicator of poverty to an indicator associated with leveraged, middle-income households. This shift reflects growth in household balance sheets that expose households right across the income distribution to greater risk of cashflow constraints as households juggle growing assets as well as growing liabilities.

By addressing the impact of financial stress on demand for property insurance, our paper addresses the gap in the literature on property and auto insurance demand that emergences in the context of growing salience of cashflow constraints. We know of no other paper that addresses the potential for premium payments on property and auto insurance to pose affordability problems for households in the wake of a shock.

We use panel data to observe how financial stress impacts insurance expenditure, thereby exploring affordability as a problem that is experienced by households in terms of dynamic liquidity constraint. In this, we follow Casaburi and Willis (2016) and Ericson and Syndor (2018) in considering consumption utility as a flow rather than a static measure that stays stable over time (Gollier 2003). In this framing, consumption utility ebbs and flows as financial stress shifts lottery outcomes depending on the degree of financial constraint experienced by the household at the time of premium payment. Our analysis thus brings the problem of cashflow constraint, and notably the experience of financial stress amongst non-poor households, to the literature on demand for property insurance in an advanced economy setting. This updates notions of affordability to account for the evolution of financial stress as an indicator no longer associated only with poverty so much as with cashflow constraint amongst non-poor households.

This is an important gap in the literature not only because the behaviour of cashflow constrained households is an increasingly important dynamic in the household sector, but also because of the changing risk landscape. Climate change is increasing the frequency and severity of weather-related disasters, which both raises the potential cost of underinsurance and strains household budgets by pushing up premiums (Tesselaar et al., 2020). Early evidence from Australia suggests that underinsurance of homes is rising in response to rising premiums, at the same time as the risk posed by adverse weather events is rising (ACCC, 2020). This suggests pervasive and growing mismatch between risk exposure and insurance coverage that is not dissimilar to underinsurance trends in other advanced economies notwithstanding variations in the policy environment (Kunreuther and Pauly, 2004; Laury, 2009; Kunreuther and Kerjan-Michel, 2009). The problem of underinsurance of homes – the biggest asset on household balance sheets – is thus rapidly becoming an urgent policy problem. In order to address this problem, insurance affordability needs much greater attention alongside the established body of literature that explores drivers behind persistent underestimation of insurable risk to homes

on the part of households (Kunreuther and Pauly, 2004; Laury, 2009; Barseghyan, 2012; Kunreuther and Kerjan-Michel, 2009; Browne, Knoller and Richter, 2015).

Our paper consequently contributes to a growing body of literature on the determinants of underinsurance, which helps to explain why insurance coverage of household property is so poorly matched to risk exposure. But it also contributes to a growing body of work on how financial stress impacts household behavior and what new risks might emerge from those behavioural impacts of stress.

Background and Data

Australia is particularly acutely exposed to the threat of weather-related disasters. The housing stock plays an important role in household balance sheets, as at once the most valuable asset and the most valuable liability in the form of mortgage debt. Unusual for its exposure to flood and fire risk, home insurance has until only very recently[2] been provided by the private market with very little government intervention.

There is very little publicly available data on the level of underinsurance in relation to house and auto insurance in Australia, however a steep rise in premiums over the last 15 years is observed.[3] This is widely understood to generate higher levels of underinsurance amongst households, who might respond by dropping insurance altogether or reducing the value of coverage (ACCC, 2020).

Home insurance contracts in Australia conventionally incur an annual premium in exchange for a set maximum value of coverage. In the event of an insurable event such as fire or vandalism, the household is paid out to the value of damage up to the maximum sum insured against the payment of a deductible, known as the 'excess'. Specific events such as floods often incur an extra fee for coverage, particularly in flood-prone locations, often known as 'additional flood cover'. Some insurance policies allow households to reduce the cost of the annual premium by reducing the value of the maximum payout in the event of a claim or increasing the value of the excess. A comparison of like policies across different locations reflects a degree of risk pricing by which the cost of insurance varies across locations dependent on risk; a pattern which is most strongly observed in house insurance but is also observed in home contents and auto insurance. Some risk pooling within premium pricing remains however, and although advances in data collection and management are moving the sector towards individualised risk pricing, this process is by no means complete.

This paper uses HILDA data which tracks income, expenditure, and other information of around 17,000 Australians. Questions about insurance expenditure and financial stress are asked in

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[2] The 2022 Cyclone Reinsurance Pool provides some government backstopping to Northern Australia.
[3] See statistics from the Insurance Council of Australia at www.insurancecouncil.com.au/industry-members/data-hub.

HILDA every year, but the information about the value of insurable assets arises only every four years.

Because our main question is whether the experience of financial stress causes people to decrease their insurance coverage, we construct our sample to evaluate if those individuals who are *not* stressed in the initial year of the series but *do* have insurance eventually decrease their insurance coverage when faced with financial stress in later years in the series.

More specifically, the sample is constructed in four steps. We:

1. start with the full sample of HILDA respondents in 2018 (17,434 households)
2. only keep those whose income, financial stress status and insurance expenditure is observed in each of the five years of our analysis and who did not report negative income in any of those years (9,778 households).
3. exclude those who do not have insurance in 2014 (8,928 households); and
4. exclude those who reported financial stress in 2014.

This leaves us with a sample of 7,481 households who started the period with insurance and with no financial stress. We then track insurance expenditure and financial stress amongst these households over the following four years.

It is important to note that we need a balanced panel to meet the purposes of this study because we define financial stress as experiencing at least one of the commonly used indicators of financial stress in 2015, 2016, 2017, or 2018. If a person disappears from the sample, then their experience of financial stress cannot be measured accurately.

Our dependent variable is insurance expenditure, which is reported as an annual expenditure in every year of the survey and includes car and property insurance but excludes health insurance.

The main explanatory variable is financial stress, which is measured as one if an individual reports any of eight indicators of financial stress. Financial stress indicators, which were developed by the Australian Bureau of Statistics and are used in each year of the HILDA survey, ask questions about the preceding year. These include questions such as if households couldn't afford to pay utilities bills on time, if they asked for financial help from a charity and if they couldn't afford to heat their home. Across these eight financial stress indicators, the most commonly reported indicator of financial stress in our sample is asking for financial help from friends or family.

Due to availability of the indicators that we use for controls only every four years, our sample essentially collapses into two years of data: 2014 and 2018. As discussed above, our sample is made up of households who were not financially stressed at the beginning of the series, in 2014, but reported at least one indicator of financial stress in either 2018 or any of the three preceding years.

Econometric Estimation and Results

We estimate the following specification:

$$Insurance_{it} = a_0 + b_1 Stressed_i + b_2 Stressed_i XAfter_t + \sum_{k=1}^{K} G_k x_{ikt} + r_i + y_t + e_{it}$$

Here $Insurance_{it}$ is household insurance spending reported by household in year t, $Stressed_i$ equals 1 if a person reports at least one of the financial stress indicators in 2015, 2016, 2017, or 2018, while $After_t$ is an indicator for year 2018, G_k is a control variable k (usually, the cost of other insurable items), r_i is individual fixed effect, and y_t is a year fixed effect. Here, b_2 is the coefficient that shows the effect of income stress on insurance spending.

Before we proceed to the results, we first explore trends in the insurance expenditure of individuals who experienced financial stress at any point in 2015-2018 and those who did not (conditional on not experiencing financial stress in 2014). This is important to the analysis because the reported results of the estimation would be spurious if those groups were on different trajectories before 2015. Figure 1 presents such "pre-treatment" trends. We observe that the baseline insurance spending is different for these two groups. Specifically, it was lower by more than 300 AUD per year in 2010 for the group who would experience stress in 2015-2018. The two groups, however, were on similar trajectories. In 2015 and later, the insurance spending of the "non-stressed" group stagnates, while the insurance spending of the "stressed" group shows a substantial dip, of around 100 AUD. This difference is unlikely to be driven by the pre-stress trends.

-- Figure 1 --

Table 1 presents the estimation results. In the most basic model, which only contains fixed effects, we observe the coefficient of -AUD$338. Once we add controls, the coefficient becomes -AUD$192, signifying that household expenditure on insurance is reduced on average by AUD$192 (in constant 2018 dollars) following the experience of financial stress. These controls cover reduced insurance expenditure resulting from a reduction in the value of vehicles or a reduction in the number of properties owned by the household. Controls also guard against reduced insurance expenditure arising from the household moving into a smaller home that is cheaper to insure; or moving from a home owned by the household to a rented home, given that home (but not contents) insurance is the responsibility of the property owner. We also include controls for tight cashflow positions, which can impact both insurance expenditure and financial stress.

-- Table 1 --

It is important to understand these results in the context of insurance spending amongst Australian households. Median insurance spending in 2018 is AUD$1,400 Australian Dollars. Thus, the effect of financial stress can explain 14% of median spending. The intensity of these reductions in insurance expenditure amongst individual households, however, is substantial. When we focus only on those households that reduced their expenditure in the wake of stress, we find that the vast majority make meaningful cuts to their expenditure, indicating meaningful cuts to coverage. Specifically, we find that 79% of those households that reduced their coverage in the wake of stress made a cut of more than 20% in overall insurance expenditure. Correspondingly, 69% of households reduced their insurance expenditure by more than 30%; 58% reduced their expenditure by more than 40% and 49% reduced their expenditure by more than 50%. These results are amplified by the overall rise in the cost of insurance premiums over the period, which increased at a rate substantially higher than inflation, between 25-45%. Moreover, these results include the full set of controls, suggesting that we are generally seeing significant cuts to coverage by those that reduce their insurance expenditure in the wake of experiencing financial stress.

Heterogeneous Effects

In this section, we explore some of the potential heterogenous effects of financial stress. In particular, we examine the distribution of households that cut their insurance in the wake of financial stress across the income spectrum. We also consider the role of cashflow constraints in driving the reduction of insurance coverage that we observe in table 1. This is presented in the regression results in Table 2, which presents results for each quartile of income.

-- Table2 --

Table 2 shows that households right across the income distribution reduce their insurance expenditure following the experience of financial stress. These results are strongest for the wealthiest households in the sample and weakest for those in the lowest income quartile. Specifically, households in the top income quartile who experience financial stress reduce their insurance expenditure by AUD$366 compared to those in the same quartile of income but who have not experienced stress. Results for each quartile are statistically significant and control for changes in housing and vehicles, thereby indicating that reduced expenditure reflects reduced

insurance coverage insofar as the results reflect changes in expenditure over and above changes in housing and vehicle assets.

Moreover Table 2 also includes controls for cashflow constraints. This provides a measure of the role of what Chetty and Sziedl (2007) refer to as 'commitment goods' in driving reduced coverage amongst financially stressed households. Our interest here is to explore if households that have high proportions of income tied up in payments that are difficult to reverse might be more likely to reduce insurance coverage in the event of a shock in comparison to those that have more flexibility in spending.

To do this, we construct a measure of committed spending by calculating the portion of income that is spent on 'committed' goods and services. In line with Chetty and Sziedl's (2007) commitment goods, these are goods and services that are 'committed' in the sense that they entail spending commitments on the part of the household that are effectively fixed in the short term and often incur considerable transaction costs. This includes rent and mortgage, for example, because these involve high transaction costs as well as considerable time to liquidate, be that in terms of moving to a new rental or selling a home or investment property. Our measure also includes payments for childcare and education because these generally entail non-refundable forward payment for a set period as well as a series of issues around availability that constrains the potential for substitution into cheaper options. We also include payments for health insurance, because benefits accrued over time are lost if the contract is cancelled;[4] as well as spending that is 'locked in' insofar as it cannot generally be reduced without considerable change in circumstances or loss of quality of life, like fuel for driving and energy costs for the home. Finally, we include telephone and internet charges, which tend to be contractualised.

The results show that tight cashflow positions play a significant role in reducing insurance coverage amongst stressed households in each of the four quartiles of income. This shows that it is not financial stress alone that prompts households to reduce their insurance expenditure, but also tight cashflow positions.

Concluding Remarks

Although data limitations make it very difficult to identify exactly what proportion of homes are underinsured either in Australia or in similar countries, it has become clear to policymakers in recent years that underinsurance is an important component of the challenge that climate change poses to the economy and society at large. At the same time as homes are at increasing risk of damage from weather-related events, affordability is ever more strained by rising

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[4] For example in clauses that designate the policy holder ineligible to make a claim in the first year of the policy. Our treatment of health insurance is in line with Chetty and Sziedl's (2007) in their measure of commitment goods.

premiums. Our findings shed light on dynamics of underinsurance and insurance-related vulnerabilities of financial stress.

Our findings contradict conventional framing of insurance affordability as a problem associated with low-income households. Instead of an income threshold below which insurance becomes unaffordable, we find that households across the income distribution are vulnerable to a reduction in insurance coverage in response to the experience of financial stress. This suggests that households reduce their insurance without reducing their assets in order to shore up household finances in the wake of a shock.

These results are consistent with new literature on temporality in insurance contracts (Ericson and Syndor, 2018; Casaburi and Willis, 2016), which shows that utility ebbs and flows as cashflow constraints vary over time. This approach disrupts the binary of insured/uninsured households by presenting utility as fluid, driving households in and out of insurance coverage as lottery outcomes change.

Although this approach has been little explored in the advanced economy context, it is pertinent to the changing nature of financial stress, which is increasingly associated with middle-income leveraged households rather than those who live in poverty. This changing face of financial stress in turn reflects the challenges that households face in juggling larger balance sheets. Although households are richer, they face new challenges of illiquidity. Chetty and Sziedl (2007), for example, explore how household behaviour changes in response to the higher stakes of tight balance sheets, when households have little discretionary income over and above committed expenditure, such as mortgage, school fees, consumer debt servicing and other 'locked in' payments. These households have little capacity to manage a shock - even if on paper they are relatively wealthy - because they are tied into illiquid positions with high ratios of spending on 'commitment goods', which can't be reversed without considerable transaction costs (see also Chen and Mahani, 2009).

Indeed, we find a key role for tight cashflow positions in driving reduced insurance coverage amongst households who have experienced financial stress. This suggests that households, many of whom are asset rich, may choose to cut insurance expenditure rather than dispense with assets to free up cashflow in the wake of a shock.

By developing a link between underinsurance and financial stress, our results make an important contribution to the insurance literature. Specifically, our results shed light on income dynamics of underinsurance, showing that underinsurance occurs across the income spectrum and is linked in significant ways to tight balance sheets. These findings are important for the urgent policy problem of understanding underinsurance. Our findings also bring important new evidence to literature on financial stress by showing that stress prompts sharp escalations in risk exposure through underinsurance. These results point towards a productive arena of further research in further analysis of episodic underinsurance. Further research must not be limited to the conditions that drive households to reduce their insurance coverage but must

include analysis of the duration of underinsurance spells and the conditions under which households reinsure.

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Figure 1: Trends in insurance expenditure
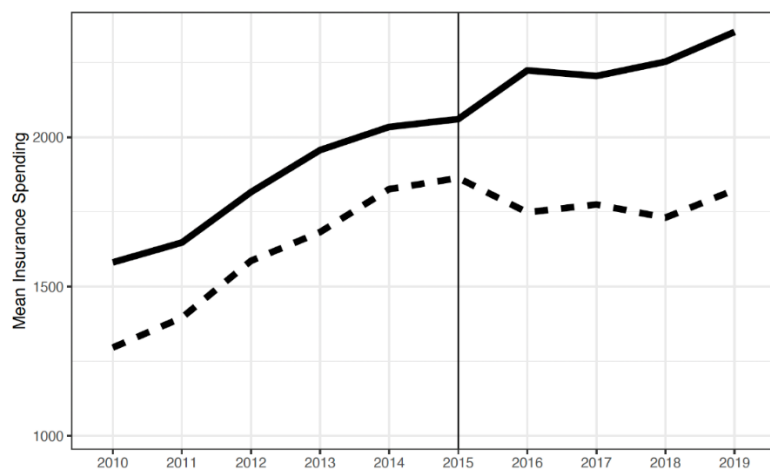
Notes: The black line represents average insurance expenditure amongst households who did not report any indicators of financial stress at any point between 2010 and 2018. The dashed line represents households who report at least one indicator of financial stress in 2015 or later.

Source: HILDA, 2010-2018

Table 1: Financial stress and insurance expenditure

	(1)	(2)	(3)	(4)
Stress X After	-337.943***	-337.943***	-311.317***	-191.756***
	(0.000)	(0.000)	(0.000)	(0.000)
Vehicles			0.003***	0.002***
			(0.000)	(0.000)
Vehicles X After			0.002***	0.001***
			(0.000)	(0.000)
Home Owner				698.158***
				(0.000)
Home Owner X Afetr				194.921***
				(0.000)
N Bedrooms				155.559***

	(1)	(2)	(3)	(4)
				(0.000)
N Bedrooms X After				-40.863***
				(0.000)
Dwelling type: House				154.661***
				(0.000)
Dwelling type: House X After				249.484***
				(0.000)
N of Properties				172.643***
				(0.000)
N of Properties X After				66.120***
				(0.000)
Cash flow constraint				357.228***
				(0.000)
Cash flow constraint X After				-238.498***
				(0.000)
Num.Obs.	14821	14821	14821	14821
Year Fixed Effects	X	X	X	X
Respondent Fixed Effects	X	X	X	X

*Note: Dependent variable is nominal change in insurance spending. *p-value<0.1, **p-value<0.05, ***p-value<0.001*

Source: HILDA, 2014-2018

Table 2: Financial stress and insurance expenditure across income quartiles

	(1)	(2)	(3)	(4)
Stress X After	-78.197***	-208.864***	-160.835***	-365.781***
	(0.000)	(0.000)	(0.000)	(0.000)
Vehicles	0.004***	0.006***	0.003***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Vehicles X After	0.002***	-0.002***	0.004***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)
Home owner	1003.482***	439.948***	355.248***	822.291***
	(0.000)	(0.000)	(0.000)	(0.000)
Home owner X After	68.175***	273.376***	186.274***	470.365***
	(0.000)	(0.000)	(0.000)	(0.000)
Dwelling Type: House	193.125***	103.749***	-57.839***	352.035***
	(0.000)	(0.000)	(0.000)	(0.000)
Dwelling Type: House X After	121.674***	5.026***	644.564***	448.402***
	(0.000)	(0.000)	(0.000)	(0.000)
N. of properties	341.896***	229.289***	138.706***	121.838***
	(0.000)	(0.000)	(0.000)	(0.000)
N of properties X After	134.876***	-21.326***	106.635***	69.658***
	(0.000)	(0.000)	(0.000)	(0.000)

	(1)	(2)	(3)	(4)
Cash flow constraints	269.930***	581.808***	770.841 ***	1210.443***
	(0.000)	(0.000)	(0.000)	(0.000)
Cash flow constraint X After	-158.754***	-599.330***	- 485.360 ***	-990.921***
	(0.000)	(0.000)	(0.000)	(0.000)
Num.Obs.	3878	3656	3601	3683
Year Fixed Effects	X	X	X	X
Respondent Fixed Effects	X	X	X	X

Note: Dependent variable is nominal change in insurance spending. *p-value<0.1, **p-value<0.05, ***p-value<0.001

Source: HILDA 2014-2018.