



## GRASSHOPPERS, ANTS AND PRE-RETIREMENT WEALTH: A TEST OF PERMANENT INCOME CONSUMERS

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IT WAS WINTERTIME, THE ANTS' STORE OF GRAIN HAD GOT WET AND THEY WERE LAYING IT OUT TO DRY. A HUNGRY GRASSHOPPER ASKED THEM TO GIVE IT SOMETHING TO EAT. 'WHY DID YOU NOT STORE FOOD IN THE SUMMER LIKE US?' THE ANTS ASKED. 'I HADN'T TIME', IT REPLIED. 'I WAS TOO BUSY MAKING SWEET MUSIC.' THE ANTS LAUGHED AT THE GRASSHOPPER. 'VERY WELL', THEY SAID. 'SINCE YOU PIPED IN THE SUMMER, NOW DANCE IN THE WINTER'.

— AESOP'S FABLE

Organizations and individuals who help shape retirement policies in the U.S. are increasingly concerned about the relatively large number of households who reach retirement with resources that will not allow them to maintain the standard of living they had during their working lives. Even accounting for differences in lifetime income, households reach retirement with dramatically different amounts of wealth. Understanding why some households appear to save more than others is important for developing interventions aimed at improving personal savings.

Using the Panel Study of Income Dynamics (PSID), household wealth in 1989 is predicted for a sample of 50-65 year olds using both current and past income, occupation, demographic, employment, and health characteristics. The sample of pre-retired households is subsetting into households who save 'lower' than predicted and all other

households. By construction, these households had similar opportunities to save; the average household in both these sub-samples are very similar along all observable income and demographic characteristics. We show that these households had a dramatic decline in spending once they retired. It is shown that these low pre-retirement wealth households had consumption growth that responded to predictable changes in income during their early working years; when they had more, they spent more and vice versa. It is concluded that households who entered retirement with lower than predicted wealth consistently followed near sighted consumption plans during their working lives.

### Ants versus Grasshoppers

One theory that attempts to explain saving behavior, the Permanent Income Hypothesis, states that in general people base their spending on what they think they will earn over a long period of

time. Knowing that a time may come when they will have less money, they will tend to save when their income is high in order to have money to spend when their income is low. I find that most households in the population behave according to the Permanent Income Hypothesis. However, there is a segment of households who enter retirement with very low wealth even after controlling for differences in income, demographic, employment and health histories. These same households experience a large consumption decline when they retire, relative to other pre-retired households. Additionally, these households have consumption profiles that respond to predictable income shocks throughout their working years. Many alternative theories can explain a subset of the above behaviors, but very few theories can jointly explain them all.

These behaviors, however, are consistent with either rule-of-thumb consumption

or hyperbolic consumers. In either case, the households display a lack of planning behavior; under the former theory, the households are myopic and do not attempt to plan for the future, while under the latter theory, the households attempt to plan, but are incapable of committing themselves to carry out those plans.

## Findings

As supporting evidence that differences in planning propensities are driving the differences in behavior between the two groups, I find that households with low wealth entering retirement, were aware of their near-sighted behavior nearly two decades prior to their retirement. In 1972, questions were asked of all PSID respondents about their propensity 1) to plan for the future, 2) to carry out their plans for the future and 3) to spend their income rather than save it. Households who entered retirement with lower than normal savings were much less likely to report that they plan for the future, were much less likely to report that they carry out their plans and were much more likely to report that they spend their income rather than save it.

At the beginning of this brief, a classic fable by Aesop is recounted. In the fable, a sharp distinction is drawn between ants, who saved during their summer (i.e., working years) to sustain consumption during their winter (i.e., retirement), and grasshoppers, who saved little for their future period of low earnings. The results shown in this paper confirm Aesop's proposition; within an economy, consumers are of different types. Some households are forward looking and behave according to the Permanent Income Hypothesis. Others, however, lack either the desire or the ability to plan for the future. When constructing economic models, it is often misguided to assume all households follow similar consumption rules. With respect to retirement saving, while it is true that the majority of households appear to follow permanent income

consumption rules, approximately 20% of the population behaves as 'economic grasshoppers'. The consumption of such households closely tracks their income during their working years leaving them with little financial wealth as they enter retirement. Given their lack of planning, such households must sharply decrease consumption – and by extension well-being – at the time of retirement.

## Can grasshoppers become ants?

This work adds to a growing literature which assesses the effects of planning behavior on household wealth accumulation. Researchers such as Lusardi find strong causal effects between attending firm sponsored retirement planning seminars and retirement wealth. Collectively, there exists evidence that planning can foster higher savings.

## Conclusion

With respect to retirement saving, while it is true that the majority of households appear to follow permanent income consumption rules, approximately 20% of the population behaves as 'economic grasshoppers'. If households do not plan for the future they will end up in retirement with little wealth, be forced to take a consumption decline upon retirement, and will have consumption profiles that respond to predictable income changes during their working years. Second, the results could be reconciled if the household had time inconsistent preferences. Such households may want to plan for the future, but are incapable of doing so. There is no evidence, however, that these households had taken steps to commit themselves to saving for the future.

While both the rule of thumb and the time inconsistent preference theories can reconcile the behavior of households with low wealth, it is not possible to disentangle the two theories. Specifically, given PSID data, it is not possible to

distinguish whether these identified household are completely myopic with respect to their consumption decisions or whether they would like to plan for the future, but are incapable of doing so. Regardless, the near sighted behavior of both types of households leaves them ill prepared to sustain consumption through retirement.

When constructing economic models, it is often misguided to assume all households follow similar consumption rules. In future work, it would be useful to understand the reasons why households do not plan for the future. Exploring the origins of such households could also be fruitful. Are households born of a given type or do they evolve as their life progresses?

## About the Researchers

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