The wealthy hand to mouth in Japan

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Abstract

This paper identifies hand-to-mouth (HtM) households and examines their characteristics in Japanese data. The share of HtM is about 13%, which is much smaller than other developed countries. The majority of them, nearly three-quarters, are considered wealthy HtM. The wealthy HtM households have similar income and consumption profiles to non-HtM households.

Keywords:
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1. Introduction

In this paper, we apply the empirical methodology of Kaplan et al. (2014), KVW henceforth, to a Japanese household survey in order to measure the fraction of hand-to-mouth (HtM) households. Standard models in the life cycle/permanent income hypothesis (LCPIH) literature often feature a group of hand-to-mouth (HtM) households that have low net assets relative to their income. Such households behave inconsistently with the LCPIH as they are liquidity constrained. However, Kaplan and Violante (2014) show that there is an additional class of households, which they dub “wealthy hand-to-mouth” (W-HtM).

Kaplan and Violante (2014) show, using a two-asset model, that some households may have substantial wealth held in illiquid assets but low levels of net liquid assets relative to their income. Such W-HtM households will behave more like the traditional HtM households (“poor hand-to-mouth” (P-HtM) in their model). In particular, they show that the W-HtM households consume a larger fraction of transitory income shocks than the LCPIH predicts, precisely because they are liquidity constrained.

Based on this insight, KVW proposes an empirical methodology to identify this new class of households and applies it to data from common household income and wealth surveys from the US, Canada, UK, Australia, and Europe. We apply this same methodology to data from a Japanese household survey, adding new evidence which verifies the W-HtM concept.

2. Data and methodology

Our data comes from the National Survey for Family Income and Expenditure (NSFIE), which is a national representative household survey conducted by the Japanese Statistical Bureau every five years. The NSFIE collects comprehensive information on demographics, income, expenditure, financial wealth, ownership of durable goods, and characteristics of real estate. We examine the repeated cross-sections of the NSFIE from 1989 to 2009 for comparability with the results from KVW.

We restrict our sample to be the same as in KVW. We examine households in which the head is between 22 and 79 years of age and not self employed. Additionally, we exclude those who do not report for all interviews, as financial wealth is only surveyed in the final interview.

We define a household as HtM if its liquid wealth balance is: (1) positive and less than or equal to half of its earnings per pay-period; or (2) negative and within half of its per pay-period income from its borrowing limit.1 We further categorize HtM households

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1 Following the baseline case of KVW, we set the borrowing limit to one month's income but results are insensitive to the choice of the limit.
based on the household’s illiquid wealth balance. If the household has a positive illiquid wealth balance, then we consider them W-HtM; otherwise, we consider them P-HtM.

Income includes all labor income, any government transfers, private transfers, public transfers such as public pension payments, and any self-employment income. In particular, asset income streams, such as those from interest, dividends, and rental properties, are excluded.

We set the pay-period to one month reflecting the fact that the vast majority of employees are paid monthly in Japan. However, we use a bimonthly pay period for public pensions. Since public pensions are paid out on the 15th of even months in Japan, a HtM household, who has a smooth consumption plan within each pay period, would have a quarter of its pension income left at the survey date, the end of November.

In the NSFIE, financial assets are categorized into five groups that we classify as either liquid or illiquid. We define liquid assets as the sum of demand deposits, time deposits, and securities. We define liquid debt as total debt less mortgage debt; that is, it includes credit card balances and installment debt. Net liquid wealth is therefore liquid assets minus liquid debts.

Life insurance, deposits in non-financial institutions, and property values of housing are categorized as illiquid assets. Property values (including land) are calculated by the statistical bureau based on characteristics such as size, structure, and vintage. Private retirement accounts, such as 401k’s, are noticeably absent from our calculations, but these are not popular in Japan. From illiquid assets, we subtract mortgage debt to calculate illiquid wealth.

The major difference between our taxonomy and that of KVW is that we categorize time deposits as a liquid asset, rather than an illiquid asset. Time deposits correspond most closely to “certificates of deposit” in the US Survey of Consumer Finances, which KVW treats as illiquid. However, in Japan, time deposits are quite liquid so that they can be canceled and liquidated to cash immediately with no penalty.

3. Results

Fig. 1 plots the fraction of HtM households in Japan from 1989 to 2009. We estimate that about 12.9% of Japanese household are HtM over this period of time. The share is slightly increasing over time, but rises only to 13.6% in 2009. KVW reports a much larger fraction of HtM households in other developed countries. In particular, KVW finds that more than 30% of households are HtM in the US, Canada, and the UK. On the other hand, the majority of households are considered to be W-HtM as in the other developed countries.

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2 The average self-employment income is almost zero because we already exclude households whose head is the self-employed.

3 We use a three month pay period for 1989, since public pension was paid every three months before 1990. See Stephens and Unayama (2011) for a more detailed discussion.

4 Retirement accounts called Definite Contribution Pensions have been increasing in take-up over time but, as of now, are not surveyed in the NSFIE.
Fig. 2 shows the share of each age group that are W-HtM and P-HtM. Although the overall level of HtM households is much lower than that in the US, the age profile is quite similar. The fraction of P-HtM households drops sharply until age 30 and then falls steadily over the lifecycle. On the other hand, the fraction of W-HtM is markedly hump-shaped peaking around age 50.

Characteristics of W-HtM, P-HtM, and N-HtM households by age are presented in Figs. 3–5. Fig. 3 shows that P-HtM and N-HtM households have a similar number of children on average over their lifecycle, and W-HtM households have an additional half a child on average than those groups. The age profiles of median income for W-HtM and N-HtM households in Fig. 4 are almost identical, which is consistent with an important finding of KVW. Fig. 5 shows age profiles of median overall consumption expenditures for each group, which is a unique result as none of the household surveys used in KVW have data on consumption. The lifecycle consumption path of W-HtM households looks very similar to that of N-HtM households. We see similar lifecycle profiles for each of the groups when we examine durable and non-durable consumption separately.

4. Conclusion

This paper calculates the share of HtM households in Japan following the empirical methodology used in KVW. Although the characteristics of HtM, both wealthy and poor, households are similar to those in US and other developed countries, the overall fraction of HtM households is much smaller in Japan. We leave examination of any particular reasons to future research.

The share of HtM households has important policy implications as theory would predict that households who are at or near kinks in their budget constraint would exhibit larger responses to economic stimulus policies than those who are on their Euler equation. Quantifying the differences in consumption behavior among these different types of households is an important further avenue of research.

References

