

### Search

Sign up to our newsletter (http://eepurl.com/blil1n)

Follow us (http://www.twitter.com/micro\_econ)

(https://www.facebook.com/microeconomicinsights/)

(http://microeconomicinsights.org/feed/)



(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/)

"Coins" by Jason Rogers, used under CC BY 2.0 / Desaturated from original, with colour filter. (https://flic.kr/p/6PXuwA)

# 8 February 2016

Public Finance (http://microeconomicinsights.org/category/public-finance/)
Authors: Greg Kaplan (Princeton) (http://scholar.princeton.edu/gkaplan/home), Giovanni Violante (NYU) (http://econ.as.nyu.edu/object/GianlucaViolante.html)

Wealthy 'hand-to-mouth' households: key to understanding the impacts of fiscal stimulus (http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/)

Many families in Europe and North America have substantial assets in the form of housing

and retirement accounts but little in the way of liquid wealth or credit facilities to offset short-term income falls. This research shows that these wealthy 'hand-to-mouth' households respond strongly to receiving temporary government transfers such as tax rebates, boosting the economy through their increased consumption. The findings have far-reaching implications for the design of fiscal stimulus policies in a recession.

When an economy experiences a severe downturn, such as the recent Great Recession, it is increasingly common for politicians, policy-makers and economists to advocate the use of fiscal stimulus policies to alleviate the economic hardship that many households face.

This class of policy intervention is premised on the idea that a temporary increase in public transfers to households (or a temporary reduction in their tax burden) will lead them to increase their consumption expenditures. To the extent that the aggregate price level and wage rate are somewhat slow to adjust (as much of the empirical evidence suggests), higher demand for goods will lead producers to increase their demand for workers, thereby spurring employment growth. Stronger labour demand in turn will lead to further increases in household incomes, setting in motion a virtuous spending–hiring cycle that improves aggregate economic conditions.

A crucial ingredient that underlies this 'multiplier logic' is that households do in fact spend a large fraction of the additional resources received from the government, since without this initial impulse, the virtuous cycle vanishes. It is over this key initial assumption that standard economic theory and empirical measurement disagree.

Consumer behaviour: theory versus evidence

The cornerstone of the economic theory of consumption behaviour is the 'permanent income hypothesis' (PIH) developed by Milton Friedman and Franco Modigliani in the late 1950s. The central idea of their analysis is simple: people base their consumption on the long-lived, stable component of their incomes, not on short-lived, temporary fluctuations. This suggests that transient ups and downs in income, such as the government transfers that comprise fiscal stimulus payments, are largely saved.

Wealthy hand-to-mouth households represent 20% of the US population, twice as many as the poor hand-tomouth Yet the collective empirical evidence on recent episodes of fiscal stimulus in the United States – where families received one-off government payments during downturns – is in stark contrast to the predictions of theory. The evidence concludes that the overall impact on consumer spending is sizeable: around 25% of the aggregate transfers are spent in the quarter in which they are received (and a similar amount in the next two quarters) on nondurable goods and services, such as food, utilities, transport and clothing (Johnson et al, 2006; Parker et al, 2013; Broda and Parker,

2014).

Moreover, this spending pattern is highly heterogeneous across the population: the average spending response of 25% comprises one group of households whose spending response is close to zero and another group whose spending response is above 50% (Misra and Surico, 2014).

How can we reconcile these striking empirical observations with a theory of consumer behaviour that has guided economists for over half a century?

'Hand-to-mouth' households

The most natural resolution of this puzzle is that there is a large fraction of 'hand-to-mouth' consumers in the population that do not act according to the PIH. These consumers are liquidity-constrained: if they had easily accessible savings or if they could access credit cheaply, they would use these extra resources to consume more than they currently do. But hand-to-mouth households do not have access to such additional funds – as a result, they have a high propensity to consume out of supplementary transitory income, such as fiscal stimulus payments.

The traditional approach to measuring hand-to-mouth households uses microeconomic data on household portfolios to identify the poorest households – those with near zero *net worth* (total assets minus liabilities). According to this criterion in many countries (including Canada, France, Germany, Italy, Spain, the United States and the UK), only 5–10% of families are in this extreme financial position. Such a small number of hand-to-mouth consumers is quantitatively insufficient to explain the strong aggregate consumption response to transitory fiscal transfers that emerges from the data.

But the hand-to-mouth insight is so compelling that one might ask whether it is conceivable that this traditional measurement approach is too narrow, potentially missing a large fraction of hand-to-mouth households.

In a series of recent studies (Kaplan and Violante, 2014a; Kaplan et al, 2014), we have pursued this logic and demonstrated that this is indeed the case. We propose an alternative approach to identifying hand-to-mouth households, based on their holdings of *liquid* assets – instruments that can be easily accessed for consumption, such as cash, bank accounts, direct holdings of mutual funds that can be quickly sold and, for indebted households, their available credit line. We then look for families that lack a buffer of liquid wealth (or credit facilities) to offset short-term changes in income.

Through the lens of this alternative approach, another type of hand-to-mouth household emerges next to the poor hand-to-mouth identified by previous studies (those with little or no net worth). We call this second type the wealthy hand-to-mouth. The wealthy hand-to-mouth are those households with little or no liquid wealth, but non-trivial (and frequently substantial) holdings of illiquid assets — assets that carry significant transaction costs to become accessible for immediate consumption, such as housing or retirement accounts. Because these families cannot easily dip into their illiquid wealth when times get tough, they also tend to have a high propensity to consume from a government windfall.

Wealthy hand-to-mouth status is not a permanent characteristic of individuals but rather a phase of the lifecycle Indeed, based on longitudinal microeconomic data for the United States, we estimate that the wealthy hand-to-mouth consumers have the highest marginal propensity to consume out of an unexpected change in labour income compared with any other group, including the poor hand-to-mouth.

In our research, we document that the group of wealthy hand-to-mouth represents 20% of the population in the United States, roughly twice as many as the poor hand-to-mouth. This finding is

even more pronounced in Europe: in France, Germany, Italy, Spain and the UK, the wealthy hand-to-mouth are three times as numerous as the poor hand-to-mouth (see Figure 1). Contrary to conventional wisdom, this means that the majority of hand-to-mouth households do have assets, just not easily accessible assets.

Figure 1: Fraction of poor hand-to-mouth and wealthy hand-to-mouth in the United States (US), Canada (CA), Australia (AU), the UK (UK), Germany (DE), France (FR), Italy (IT) and Spain (ES).

0.4 • Wealthy 'hand-to-mouth'



(https://io.wp.com/microeconomicinsights.org/wp-content/uploads/2016/02/kaplan\_violante\_fig1.jpg)

Source: Kaplan et al (2014)

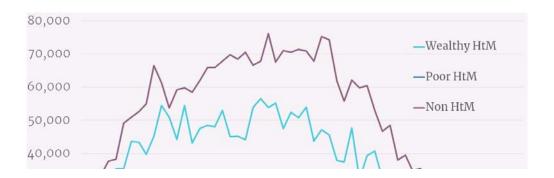
# Wealthy hand-to-mouth families

So who are these wealthy hand-to-mouth families? In our study of the United States, we highlight three features:

- First, while poor hand-to-mouth households are most frequently young with low incomes, the wealthy hand-to-mouth are middle aged (peaking around the age of 40). They also have high incomes (similar to the non-hand-to-mouth families), as shown in Figure 2; and they hold a sizeable amount of illiquid assets (around \$50,000 on average at the age of 40).
- Second, wealthy hand-to-mouth households hold portfolios that are strikingly similar to the non-hand-to-mouth in terms of their shares of illiquid wealth invested in housing and retirement accounts.
- Third, wealthy hand-to-mouth status is not a permanent characteristic of individuals. Rather, it is a fairly transient state, lasting an average of three to four years. This feature suggests that we are not identifying an innate behavioural trait, but rather a phase of the lifecycle determined by a combination of demographic factors (age, marital status and children) and income dynamics.

For the United States, we also document that among homeowners, the fraction of the wealthy hand-to-mouth rises steeply with the average loan-to-value ratio, as mortgage interest payments absorb much of the household income flow.

Figure 2: Median income of the poor hand-to-mouth, wealthy hand-to-mouth and non-hand-to-mouth in the United States.





(https://i1.wp.com/microeconomicinsights.org/wp-content/uploads/2016/02/kaplan\_violante\_fig2.jpg)

Source: Kaplan et al (2014)

Why do so many households find themselves in such an extreme financial position, whereby most of their wealth is tied up in illiquid, costly-to-access assets? In Kaplan and Violante (2014a), we argue that this apparently inconvenient portfolio allocation can be the outcome of rational cost-benefit analysis.

The two biggest categories of illiquid assets are housing and retirement accounts. Housing carries a high rate of return because it generates an implicit service flow from being able to live in the house; retirement accounts carry a high rate of return, in the United States and elsewhere, because of matching employer contributions and favourable tax treatment.

When these returns are sufficiently high, households may optimally choose to lock their wealth away in these illiquid high-return assets and weather income fluctuations by altering their consumption. Their consumption fluctuates in line with their income because smoothing consumption would entail:

- frequently paying a transaction cost to access their illiquid wealth;
- holding large balances of cash and hence forgoing the high return on the illiquid savings;
- or obtaining credit at expensive interest rates.

## Fiscal stimulus: targeting and size

This new view of liquidity constraints has far-reaching implications for the design of fiscal stimulus policy during economic contractions, along three dimensions:

- targeting;
- the size of the intervention;
- and state-dependence (the severity of a recession) in the effectiveness of policy.

Traditionally, it has been assumed that fiscal stimulus programs should be targeted towards households with the lowest incomes, since the poor hand-to-mouth typically have low incomes and these households are most likely to spend their transfers quickly.

Stimulus programs should target households based on characteristics that can act as a proxy for hand-to-mouth status Our research suggests instead that to obtain the biggest bang for the buck, income-based transfers should be phased out at a much higher level in the income distribution, because that is where the wealthy hand-to-mouth are located. In other words, many middleclass households face similar constraints on spending and will also respond strongly to receipt of a government transfer.

Moreover, ideally these programs should target households based

on a rich set of characteristics beyond income, which can act as a proxy for hand-to-mouth status. These might include immediate availability of liquid funds, homeownership, loan-to-value ratios and access to credit. Government agencies could combine multiple sources of available microeconomic data to create an individual propensity to consume score that would guide the design of the program.

With bigger transfers, the wealthy hand-to-mouth are more likely to start saving some of the windfall, reducing its effectiveness as a stimulus Another important implication of our research is that the belief that 'the bigger the stimulus, the bigger the effect on spending' is misplaced. While the wealthy hand-to-mouth are as likely to spend small stimulus payments as their poorer counterparts, the same is not true for larger stimulus payments. When the size of the payout increases, the wealthy hand-to-mouth are more likely to begin saving some of the government windfall, reducing its effectiveness as a boost to the economy.

In Kaplan and Violante (2014b), we compare the impacts of the two US stimulus programs of 2001 and 2008. We argue that the reason why the latter intervention had smaller effects is that on average the payment received by each family in 2008 was roughly twice as large as in 2001 (\$1,000 instead of \$500).

# Comparing mild and severe recessions

Our research also draws attention to the fact that the aggregate macroeconomic conditions surrounding policy interventions will affect the fraction of the transfer consumed by households in non-trivial ways.

In a mild recession, where earnings drops are small and short-lived, it is not worthwhile for the wealthy hand-to-mouth households to pay the transaction costs of accessing some of their illiquid assets (or to use expensive credit) to smooth their consumption. As a result, liquidity constraints get amplified and their consumption response to the receipt of a fiscal stimulus payment is strong.

Counter-intuitively, the same stimulus policy may have stronger effects in a mild downturn than in a severe recession Conversely, at the outset of a severe recession that induces a large and long-lasting fall in income, many wealthy hand-to-mouth households will choose to borrow or tap into their illiquid account to create a buffer of liquid assets that can be used to counteract the income loss. Consequently, fewer households are hand-to-mouth when they receive a government windfall. Thus, somewhat counter-intuitively, the effect of the stimulus on consumption can be lower than when the same policy is implemented in a mild downturn.

Acknowledging the existence of wealthy hand-to-mouth households also has implications for economic policy beyond fiscal stimulus. In further work (Kaplan et al, 2015), we show the importance of these households for the efficacy of both conventional monetary policy (changes in nominal interest rates) and unconventional monetary policy (forward guidance about future changes in nominal interest rates).

## Further reading

Broda, Christian and Jonathan A. Parker (2014) 'The Economic Stimulus Payments of 2008 and the Aggregate Demand for Consumption', *Journal of Monetary Economics* 68(S): S20-36. (http://www.sciencedirect.com/science/article/pii/S0304393214001366)

Johnson, David S., Jonathan A. Parker, and Nicholas S. Souleles (2006) 'Household Expenditure and the Income Tax Rebates of 2001', *American Economic Review* 96(5): 1589–1610. (https://www.aeaweb.org/articles.php?doi=10.1257/aer.96.5.1589)

Kaplan, Greg, Benjamin Moll, and Giovanni L. Violante (2015) 'Monetary Policy According to HANK', mimeo. (http://www.nber.org/papers/w21897)

Kaplan, Greg, and Giovanni L. Violante (2014a) 'A Model of the Consumption Response to Fiscal Stimulus Payments', Econometrica 82(4): 1199-1239. (http://onlinelibrary.wiley.com/doi/10.3982/ECTA10528/abstract)

Kaplan, Greg, and Giovanni L. Violante (2014b) 'A Tale of Two Stimulus Payments: 2001 versus 2008', American Economic Review: Papers and Proceedings 104(5): 116-21. (https://www.aeaweb.org/articles.php?doi=10.1257/aer.104.5.116)

Kaplan, Greg, Giovanni L. Violante, and Justin Weidner (2014) 'The Wealthy Hand-to-Mouth', *Brookings Papers on Economic Activity* 48(1): 77-153. (http://www.brookings.edu/~/media/projects/bpea/spring-2014/2014a\_kaplan.pdf)

Misra, Kanishka, and Paolo Surico (2014) 'Consumption, Income Changes, and Heterogeneity: Evidence from Two Fiscal Stimulus Programs', American Economic Journal: Macroeconomics 6(4): 84-106. (https://www.aeaweb.org/articles.php?doi=10.1257/mac.6.4.84)

Parker, Jonathan A., Nicholas S. Souleles, David S. Johnson, and Robert McClelland (2013) 'Consumer Spending and the Economic Stimulus Payments of 2008', *American Economic Review* 103(6): 2530-53. (https://www.aeaweb.org/articles.php?doi=10.1257/aer.103.6.2530)

### Share

### Facebook

(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/?share=facebook)

### Twitter

(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/?share=twitter)

### LinkedIn

(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/?share=linkedin)

### Reddit

(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/?share=reddit)

### Blogger

(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/?share=custom-1459877020)

### Typepad

(http://microeconomicinsights.org/wealthy-hand-to-mouth-households-key-to-understanding-the-impacts-of-fiscal-stimulus/?share=custom-1459877072)

## **Media Consultant**

# Romesh Vaitilingam

◆ Prices, markups and trade reform (http://microeconomicinsights.org/prices-markups-and-trade-reform/)

Divorce laws and the economic behavior of married couples > (http://microeconomicinsights.org/divorce-laws-and-the-economic-behavior-of-married-couples/)

## You may also like:



(http://microeconomicinsights.org/measuring-the-impact-of-us-state-taxation-on-business-activity/)

Photo by Chris Schippers via Pexels, used under CC by 2.0 / Desaturated from original with colour filter. (http://microeconomicinsights.org/measuring-the-impact-of-us-state-taxation-on-business-activity/)

# 30 January 2019

Public Finance (http://microeconomicinsights.org/category/public-finance/)

Authors: Xavier Giroud (Columbia Business School) (http://www.columbia.edu/~xg2285/), Joshua Rauh (Stanford University) (https://web.stanford.edu/~rauh/)

# Measuring the impact of US state taxation on business activity (http://microeconomicinsights.org/measuring-the-impact-of-us-state-taxation-on-business-activity/)

There is considerable anecdotal evidence of US companies moving from high-tax states to low-tax states, but what do the data reveal about the impact of state taxation on economic activity? This research finds that firms subject to state-level corporate taxation respond to higher corporate tax rates by closing establishments and reducing employment; those subject only to state-level personal income taxation respond similarly to individual income tax rates, though to a lesser extent. Since half of these responses are due to reallocation of business activity to lower-tax states, tax competition across states clearly plays a first-order role in corporate decision-making.





(http://microeconomicinsights.org/optimal-timing-of-unemployment-benefits-evidence-from-sweden/)

Photo by Murray Campbell via Unsplash, used under CC by 2.0 / Desaturated from original with colour filter (http://microeconomicinsights.org/optimal-timing-of-unemployment-benefits-evidence-from-sweden/)

# 6 December 2018

# Public Finance (http://microeconomicinsights.org/category/public-finance/)

Authors: Jonas Kolsrud (National Institute of Economic Research, Stockholm) (https://sites.google.com/site/jonaskolsrud/), Camille Landais (London School of Economics) (http://www.lse.ac.uk/economics/people/faculty/camille-landais), Peter Nilsson (Institute for International Economic Studies, Stockholm) (https://sites.google.com/site/nilssonjanpeter/), Johannes Spinnewijn (LSE) (http://personal.lse.ac.uk/spinnewi/)

# Optimal timing of unemployment benefits: evidence from Sweden (http://microeconomicinsights.org/optimal-timing-of-unemployment-benefits-evidence-from-sweden/)

A public program of unemployment benefits aims to protect people against job loss, but it should ideally be designed so that it doesn't encourage them to stay out of work too much longer than they otherwise would. This research explores how policy can achieve the ideal balance between maximizing the insurance value of benefits while minimizing the incentive cost. Analyzing data from Sweden on unemployment, consumption, income, and wealth, the findings indicate that contrary to recent reforms that push towards making the generosity of benefits decline over the unemployment spell, it is more socially desirable to reduce benefits for the short-term unemployed in order to raise them for the long-term unemployed.





(http://microeconomicinsights.org/us-treasury-auctions-measuring-effectiveness-primary-markets-government-securities/)

Photo by Pepi Stojanovski via Unsplash, used under CC by 2.0 / Desaturated from original with colour filter (http://microeconomicinsights.org/us-treasury-auctions-measuring-effectiveness-primary-markets-government-securities/)

## 29 November 2018

Organisation of Markets (http://microeconomicinsights.org/category/organisation-of-markets/), Public Finance (http://microeconomicinsights.org/category/public-finance/)

Authors: Ali Hortaçsu (University of Chicago) (http://home.uchicago.edu/hortacsu/), Jakub Kastl (Princeton University) (http://www.princeton.edu/~jkastl/), Allen Zhang (Fannie Mae) (https://www.linkedin.com/in/allen-zhang-03673312)

# US Treasury auctions: measuring the effectiveness of primary markets for government securities (http://microeconomicinsights.org/us-treasury-auctions-measuring-effectiveness-primary-markets-government-securities/)

How should government bonds be sold? Research typically emphasizes how the auction design affects outcomes depending on the nature of demand and the competitive environment. This study combines models of strategic bidding in Treasury auctions with detailed bidding data to construct empirical measures that reveal the effectiveness of auctions. Applying these methods to data on US Treasury auctions shows that the gains from optimizing the auction mechanism are no more than 5 basis points The research also quantifies the advantage enjoyed by primary dealers in these markets, who are able to observe the 'willingness-to-pay' of their customers who route their bids through them.

About (http://microeconomicinsights.org/about/)

Editors (http://microeconomicinsights.org/editors/)

Sponsors (http://microeconomicinsights.org/sponsors/)

Contact (http://microeconomicinsights.org/contact/)

© 2019

Creative Commons (http://microeconomicinsights.org/creative-commons/)

Corrections (http://microeconomicinsights.org/corrections/)

Colophon (http://microeconomicinsights.org/colophon/)

Cookies (http://microeconomicinsights.org/cookies/)

Hosted by IFS

(http://www.ifs.org.uk/)

Supported by

E·S·R·C

ECONOMIC

& SOCIAL

(http://www.esrc.ac.uk/)

WOODROW

SHOOL

WHISON

(http://www.sloan.org/)

(http://www.sprinceton.edu/)

(http://www.princeton.edu/)

(http://cowles.yale.edu/)