

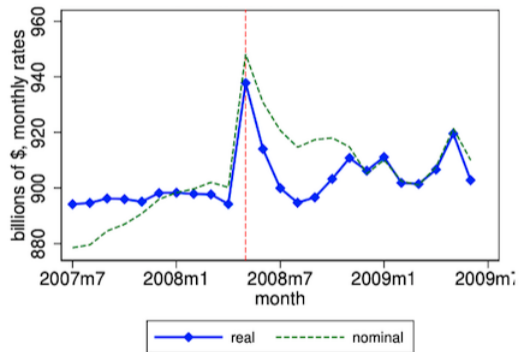
Discussion of
*“Micro MPCs and Macro Counterfactuals:
The Case of the 2008 Rebates”*
by
Jacob Orchard, Valerie A. Ramey and Johannes F. Wieland

Christina Patterson
Chicago Booth

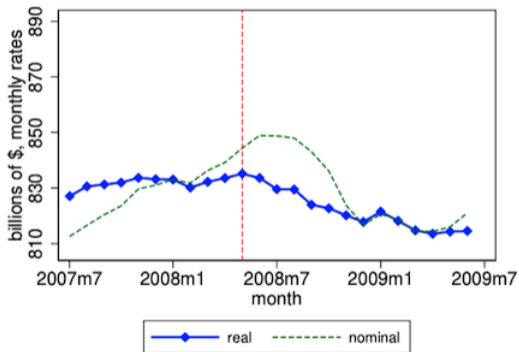
NBER Economic Fluctuations and Growth, February 2023

Motivation: Macro time series in 2008

Disposable Income



Consumption

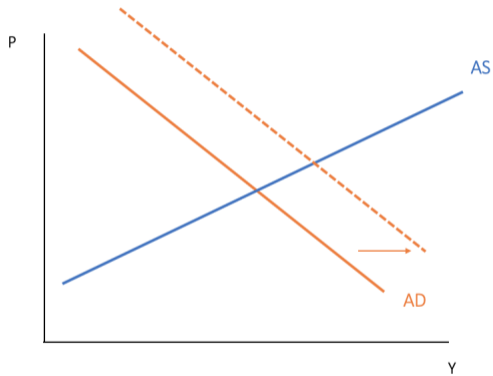


Summary of Paper

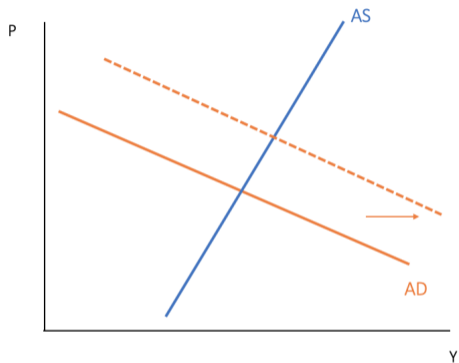
$$\text{Aggregate GE-MPC} = \text{Micro MPC} * \text{GE multiplier}$$

- The paper has three main points about this equation
 1. Micro MPCs from tax rebates are smaller than previously estimated and heterogeneous in important ways
 2. The aggregate GE-MPC after the 2008 tax rebates was modest
 3. Given the size of aggregate consumption changes and micro MPCs, GE multiplier has to be (substantially) less than 1

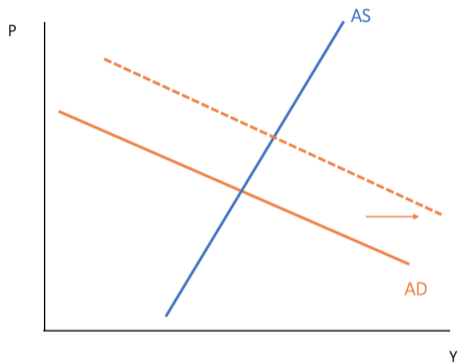
GE Dampening: Aggregate Demand vs. Aggregate Supply Elasticities



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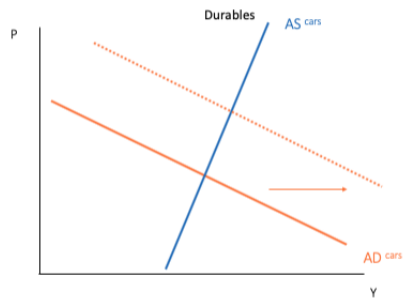
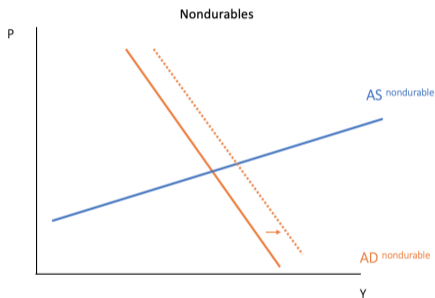
GE Dampening: Aggregate Demand vs. Aggregate Supply Elasticities



- What's the complication?
 - ▶ 2008 was a recession and we may not think that supply should be constrained
 - ▶ Recent estimates of the slope of the aggregate Phillips curve are modest (Hazell, Herreño, Nakamura and Steinsson 2021)

GE Dampening: Sectoral Heterogeneity

- *Key insight:* the data strongly supports a 2-goods extension of baseline model



- High MPC for the supply constrained good with large demand elasticity led to large GE dampening

Outline for Discussion: Three main comments

1. On updated micro MPCs: the signal and the noise
2. On the GE dampening: thinking about cross-state evidence
3. On the punchline: what do we take away from this?

Comment 1: New micro MPC estimates are noisy

- Two key findings in the revised MPC estimates:
 - MPC for non-durables (i.e. non-cars) is very small
 - Aggregate MPC is driven by spending on cars

	Full Sample		Rebate Only Sample	
	Motor Vehicles (1)	Other PCE (2)	Motor Vehicles (3)	Other PCE (4)
Rebate Indicator	308.41*** (114.69)	-20.28 (145.54)	286.72* (173.35)	68.29 (460.16)

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- Are these estimates informative of MPCs outside of the 2008 rebate?
 - Ongoing debate in literature about size of MPC for non-durables, with many larger estimates (e.g. Kueng 2018, Fagereng et al 2008)

Finding 2: Aggregate MPC is driven by spending on (new) cars

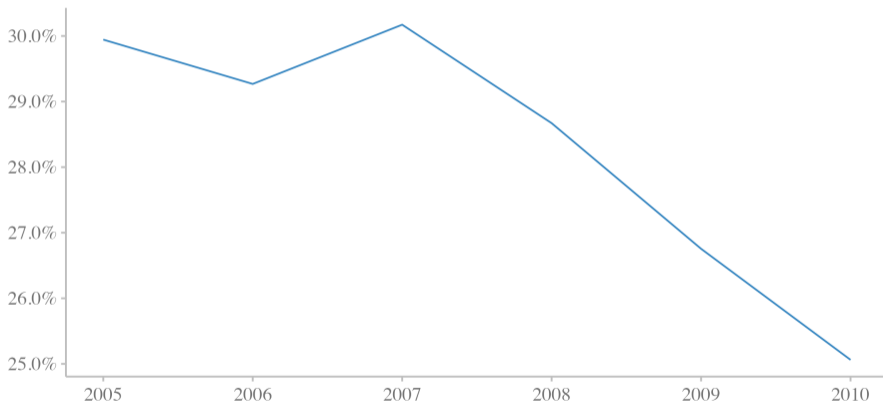
- The entire effect is driven by new car purchases

	(1)	(2)
	P(Buy New Car)	P(Buy Used Car)
Tax Rebate	1.268 (0.540)	0.169 (0.812)
Observations	10488	10488
Average Purchase Probability	.69	1.5

Used cars are a large share of total car purchases

New Car Purchases as a Share of Total Car Purchases (2005-2010)

Share of total car purchases



Source: Consumer Expenditure Survey. Purchases classified by positive net outlays on cars and trucks.

Comment 1: Reasons to believe that durables (cars) are important

- MPCs are really large where people can amplify spending by borrowing
- Cars are a durable asset financed by collateralized lending
 - ▶ As of 2008, roughly 3/4 of cars were financed with loans (Agarwal, Ambrose, and Chomsisengphet 2008)

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Adams, Einav and Levin (2009) show cars respond to tax rebates

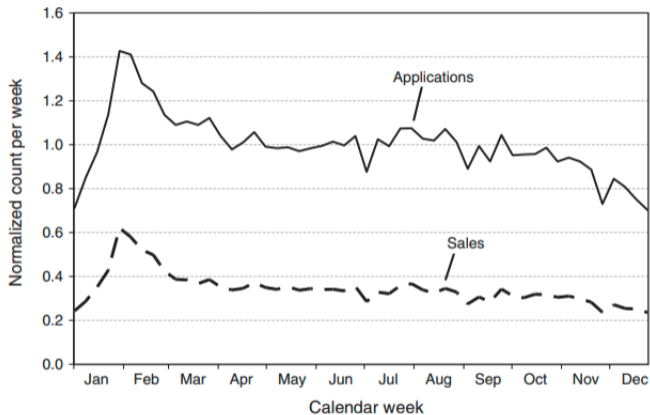


FIGURE 2A. SEASONALITY IN APPLICATIONS AND SALES

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→ *My conclusion:*

- ▶ Spending on cars could be a driver of MPCs in many contexts
- ▶ Empirical literature should focus more on honing these estimates (i.e. is there a reversal?)

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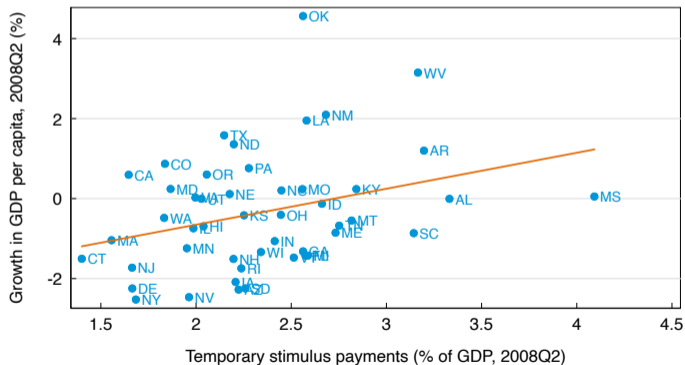
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Comment 2: Explore relationship with cross-state estimates

- Intermediate level of aggregation: cross-state relationship between size of rebates and GDP growth
 - ▶ Some, but not all, GE effects are included in these local estimates

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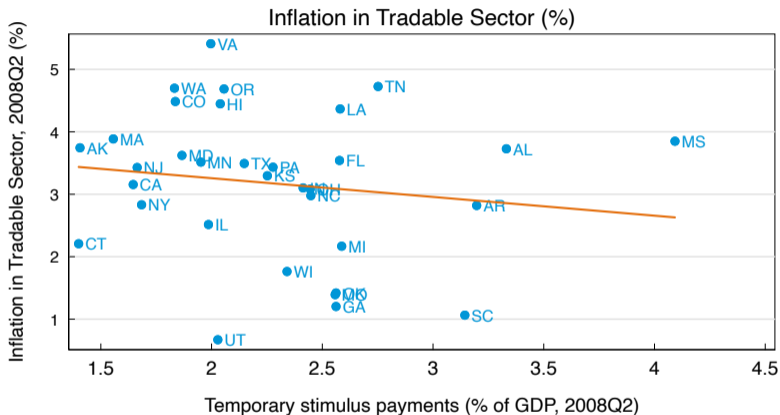
- Intermediate level of aggregation: cross-state relationship between size of rebates and GDP growth
 - Some, but not all, GE effects are included in these local estimates
 - Pennings 2022: transfer multiplier in 2008 was roughly 0.4



Comment 2: How would this model interpret this evidence?

- The cross-state estimate is higher than national estimates implied by the model
 - ▶ Spending multipliers also have high cross-sectional estimates with lower aggregate estimates (Chodorow-Reich 2019, Ramey 2011)
- How could the model explain these cross-state patterns?
 1. Car production is concentrated in high transfer states
 2. Some car spending is local and prices for cars are rising more in states with more transfers
 3. GE dampening came from another source (e.g. we weren't yet at ZLB)
 4. There is a positive, non-trivial MPC on local non-durables (closer to middle estimates)

Cross-state relationship between size of rebates and local tradable inflation



State-level inflation rates from Hazell, Herreño, Nakamura and Steinsson 2021

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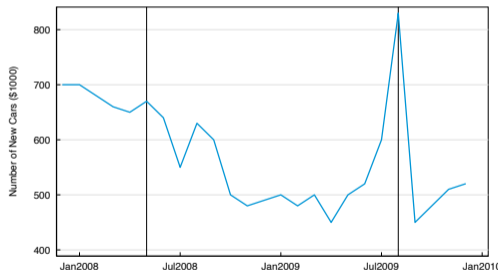
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- Does this paper imply that effects of transfers are state-dependent?
 - ▶ Time series literature on fiscal multipliers has not reached consensus (Auerbach and Gorodnichenko 2013; Ramey and Zubairy 2018)
 - ▶ Cross-sectional estimates find more state dependence (Nakamura and Steinsson 2014)

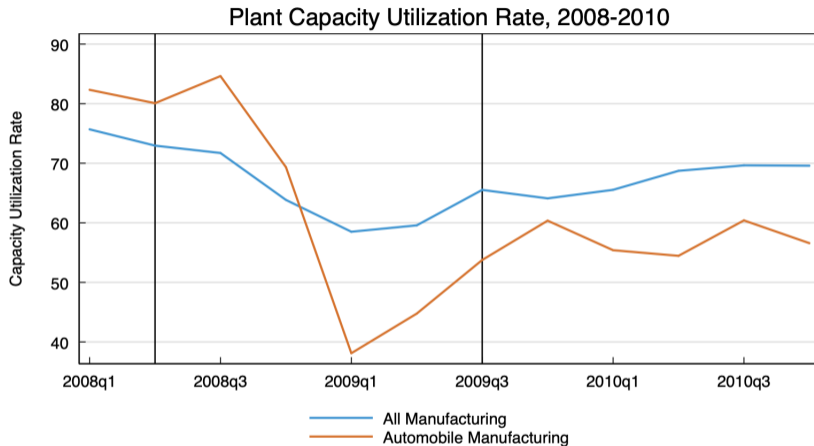
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- Supply constraints for cars are not always that binding



- Cash for Clunkers: dealer's subsidy was fully passed onto consumers (Busse et al 2011)

Time-varying capacity utilization in auto sector



Source: Quarterly Survey of Plant Capacity Utilization

→ Suggests the importance of work understanding nature of supply constraints (e.g Boehm and Pandalai-Nayar 2022)

Comment 3: What are the implications for policy?

- Analysis suggests a more nuanced approach to fiscal stimulus is needed
 - ▶ Suggests targeting payments towards sectors that are not constrained
 - ▶ E.g. Cash for clunkers in US
 - ▶ E.g. China's digital coupons that could be used in certain categories (Ding et al 2022, Xing et al 2022)
 - ▶ Could still be effective in a deep recession when supply constraints are less binding

Conclusion

- Great thought-provoking paper!
- Updated MPC estimates are noisy, but importance of cars is probably broadly relevant
- Potential extensions: cross-state geography and state dependence