Jason

The Impact of Unemployment Benefit Extensions on Employment: The 2014 Employment Miracle?

Marcus Hagedorn Iourii Manovskii Kurt Mitman

Forthcoming, AEJ: Macro

29 September 2025

2013 Cut in Unemployment Benefit Durations

- Following the Great Recession, the US government funded extensions in the duration of unemployment benefits in high-unemployment states.
  - ↪ Different states had different extensions on unemployment benefits.
- In December 2013, these extensions were unilaterally cut for all states by federal government.
  - ↪ Variation in reduction in duration of unemployment benefits between states.
- Hagedorn et al use this variation to identify the effect of reducing unemployment benefits on employment and the labour force.
- They use a diff-in-diff-like method, comparing changes in employment between bordering counties.
  - ↪ Identifying assumption is that high-benefit states did not, on average, see higher employment growth than low-benefit states.

Effect of Benefit Duration Cut

- Mathematically, they estimate α:

$$\Delta_p e_{p,t} = \alpha \mathbb{I}_{t \geq 2013/Q4} \Delta_p b_{p,t} + \kappa \mathbb{I}_{t \leq 2013/Q3} \Delta_p b_{p,t} + \Delta_p \varepsilon_{p,t}$$

$$\Delta_p \varepsilon_{p,t} = \gamma_i t - \gamma_j t + \phi_i - \phi_j + \Delta_p v_{p,t}$$

where Δ_p is the difference-between-counties operator, e.g. $\Delta_p b_{p,t}$ is the difference in log benefit duration between counties in pair p.

	Actual Reform	
	Employment	Labor Force
Weeks of Benefits	**-1.90**	**-0.86**
	(0.000)	(0.000)

- Using a simplified Mortensen-Pissaredes searching-and-matching model, they extrapolate aggregate effects of cut:
  - an increase of 2,074,100 in employment,
  - an increase of 1,119,500 in the labour force.

Jingze

The China Syndrome: Local Labor Market Effects of Import Competition in the United States

- **Outcomes:**
  - Industry employment by commuting zone: County Business Patterns (U.S. Census Bureau).
  - Population, employment, and wages: Microdata from the Integrated Public Use Microdata Series of the U.S. Census and the American Community Survey.
- **Treatment**
  - Trade flows: U.S. and other high-income countries' imports from China by product category (United Nations Comtrade).
  - Local exposure measure: "change in Chinese imports per local worker". Authors apportion national import changes to each commuting zone in proportion to that zone's initial industry employment shares.
- **Identification**
  - IV: instrument U.S. import growth from China with China's export growth to a group of other high-income countries (Australia, Denmark, Finland, Germany, Japan, New Zealand, Spain, and Switzerland) to isolate China-specific supply-side export expansion.

Table 7 — Comparing Employment and Wage Changes in Manufacturing and outside Manufacturing (1990–2007)

	I. Manufacturing sector			II. Nonmanufacturing		
	All workers (1)	College (2)	Noncollege (3)	All workers (4)	College (5)	Noncollege (6)
Panel A. Log change in number of workers						
(Δ imports from	-4.231^{***}	-3.992^{***}	-4.493^{***}	-0.274	0.291	-1.037
China to US) / worker	(1.047)	(1.181)	(1.243)	(0.651)	(0.590)	(0.764)
R^2	0.31	0.30	0.34	0.35	0.29	0.53
Panel B. Change in average log weekly wage						
(Δ imports from	0.150	0.458	-0.101	-0.761^{***}	-0.743^{**}	-0.822^{***}
China to US) / worker	(0.482)	(0.340)	(0.369)	(0.260)	(0.297)	(0.246)
R^2	0.22	0.21	0.33	0.60	0.54	0.51

Notes:N = 1444 (722 CZs × 2). 2SLS estimates. Standard errors clustered on state. Models are weighted by start of period CZ share of national population.

Hiro

"Quantifying Reduced-Form Evidence on Collateral Constraints" by Catherine et. al. (2022) presented by Hiro Endo

Big Question: What is the (aggregate) effect of financial constraints?

$$\frac{i_{it}}{\mathrm{k_{it-1}}} = \alpha + \beta \frac{REV_{it}}{k_{it-1}} + Offprice_{it} + \gamma X_{it} + \nu_{it}$$

i_{it} investment by firm i, k_{it-1}: beginning-of-period capital held by firm i, $Offprice_{it}$: an index for office price, X_{it}: controls (firm- and year-specific fixed effects, as well as firm-level controls interacted with real estate prices)
REV_{it}: firms' **real estate** holdings.

metropolitan

Parameter of interest: $\beta = 0.06^{**}$
⇒Every $1 of real estate appreciation translates into $0.06 of additional investment

Datasource Compustat (1993-2006)

Comments:

- PE evidence (there is also causality running from i to REV in response to aggregate shocks)
- Nonetheless, a useful statistic to calibrate models when computing the GE effect, which is what they do.
- Plausible heterogeneity of β along several dimensions (e.g. firm sector, age and time)
  - $Cov(\beta, cyclicality\ of\ Rev) >< 0$
- Other types of collaterals?

Yixiang

Notes on Empirical Result:

Inspecting the Mechanism: Leverage and the Great Recession in the Eurozone

Philippe Martin and Thomas Philippon (2017)

Notes by Yixiang Gao

September 28, 2025

Eurozone: Impact of "Sudden Stop" on Household Debt

Context: "Sudden Stop"

- Foreign capital stopped going to Eurozone, and creating the risk of sovereign debt rollover and adding banks' funding costs to household debt

Data and Identification Problem

- Want to find a household leverage factor $\hat{b}^h_{j,t}$ that's influenced by credit cycle rather than financial segmentation

$$b^h_{j,t} = \hat{b}^h_{j,t} + \lambda^{\rho,h}\rho_{j,t}$$

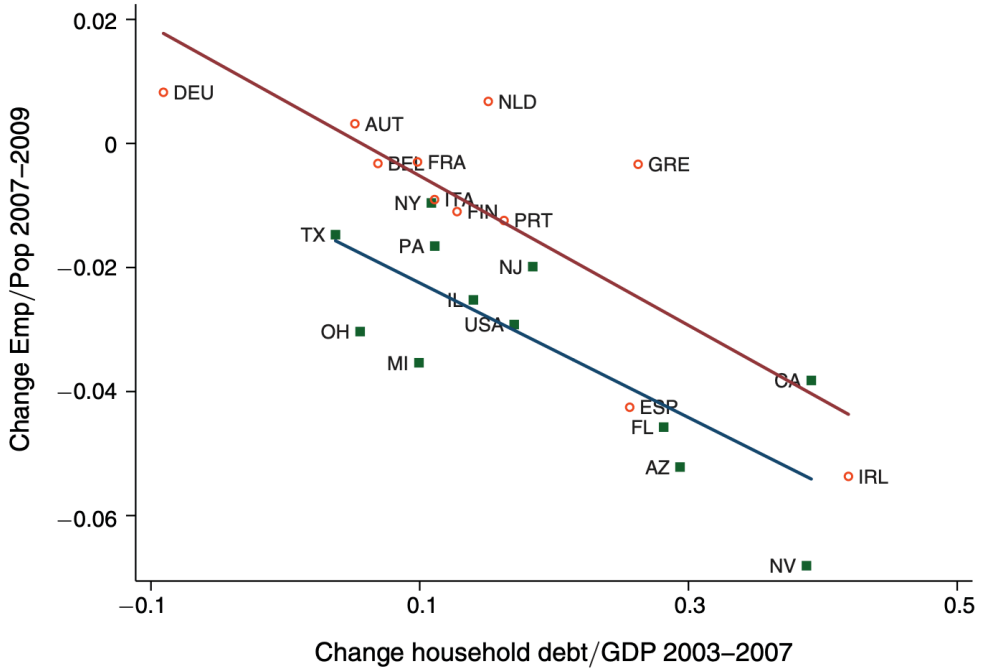
- Use the states in U.S. as a "control" group

$$b^{h,US}_{j.t} = \hat{\alpha}_1 b^{h,US}_{j,t-1} + \sum_{k=2002,2005,2008} \hat{\alpha}_k b^{h,US}_{j,k} + \varepsilon_{j,t}$$

- Then use the estimated coefficients to construct predicted deleveraging in eurozone countries $\hat{b}^h_{j,t}$:

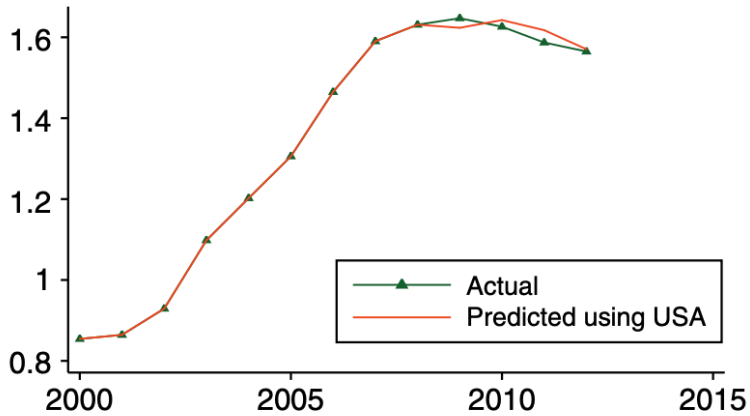
$$\hat{b}^h_{j,t} = \hat{\alpha}_1 b^h_{j,t-1} + \sum_{k=2002,2005,2008} \hat{\alpha}_k b^h_{j,k}$$

Before "Sudden Stop" Risk: (2007 - 2009)

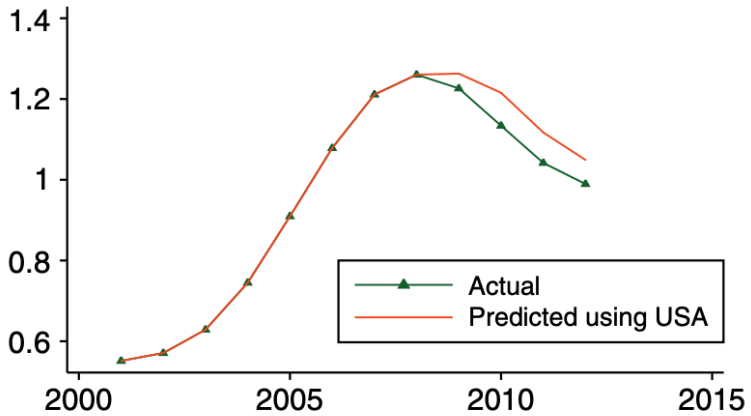


Private Debt Deleveraging (After 2009)

Panel A. Deleveraging in California



Panel B. Deleveraging in Ireland

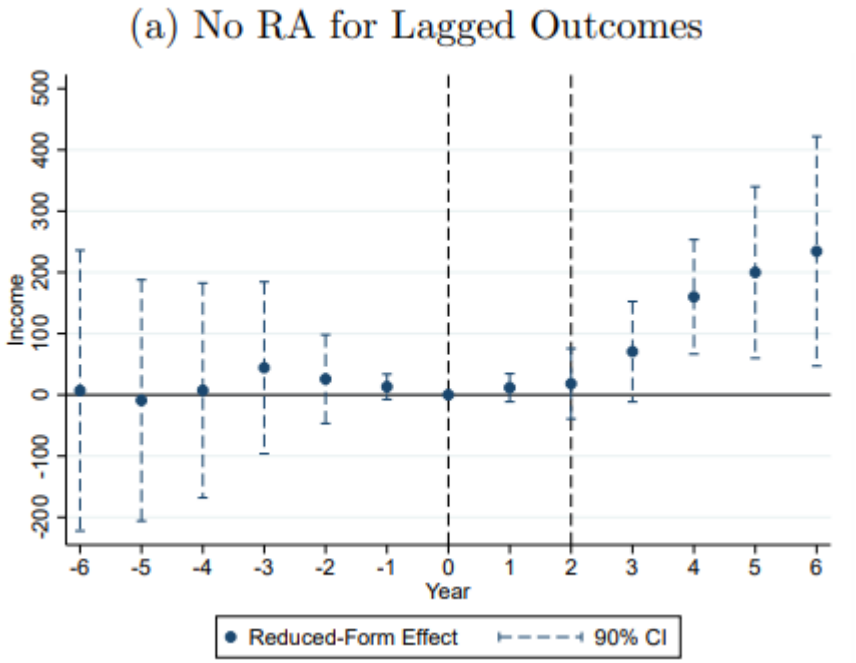


Michel

Estimating Local Fiscal Multipliers, Serrato & Wingender, NBER WP

- Question: What is the spending multiplier?
- Idea:
  - Many govt. programs resources are allocated based on population
  - Census collects population every 10 years
  - Within those ten years population counts are adjusted using incremental admin data – accumulating errors over the decade
  - We can use Census revisions to identify these errors
  - Errors have economically significant effect on spending
- Implementation details:
  - Errors might be correlated with growth trends – address with IPW weights
  - Relies on a selection on observables identification assumption
  - Additional timing test – revised estimates are published two years after the census so spending/growth in those two years should be uncorrelated with the shock

DiD: Census Shock Effect on Income



SEs clustered by state, 90% CI.
IPW adjustment

Results Table: Effects of a Census Shock (yrs 2-6)

	(1)	(2)	(3)	(4)
Employment Growth	1.064***	1.100***	0.974***	0.936**
	(0.395)	(0.412)	(0.371)	(0.406)
Income Growth	61.610**	63.298**	55.681**	51.252*
	(27.251)	(28.605)	(26.322)	(28.429)
Federal Spending Growth	31.319**	31.374**	29.984**	30.148**
	(13.211)	(12.497)	(13.156)	(12.760)
Implied Multipliers				
Income Multiplier	1.967*	2.018*	1.857*	1.7
	(1.124)	(1.16)	(1.119)	(1.104)
90% CI (percentile)	[.42,5.96]	[.38,6.14]	[.35,5.7]	[.13,5.49]
Bootstrap p-value	.025	.029	.024	.039
Cost per Job	29442*	28534*	30785*	32202*
	(15230)	(14563)	(16694)	(18284)
90% CI (percentile)	[7601,73169]	[8873,74722]	[9004,77600]	[8513,91924]
Bootstrap p-value	.015	.011	.012	.015
Observations	9,173	9,173	9,173	9,173
IPW	Y	Y	Y	Y
RA		Y	Y	Y
RA Controls		Shocks	Shocks, Lagged Outcomes	Shocks, Lagged Outcomes
State Fixed Effects	Y	Y	Y	
Year Fixed Effects	Y	Y	Y	
State-Year Fixed Effects				Y

Jesse

Adrien Auclert (2019) - Monetary Policy and the Redistribution Channel

Context

Goal: test whether redistribution amplifies monetary policy using signs of $\mathrm{Cov}(\mathrm{MPC}, \mathrm{URE})$, $\mathrm{Cov}(\mathrm{MPC}, \mathrm{NNP})$, and the MPC–income gradient.

Objects (annual; exposures normalized by mean consumption): MPC; **URE** = unhedged interest-rate exposure; **NNP** = net nominal position; gross income.

Data

Italy — SHIW 2010: self-reported windfall MPC (individual).

U.S. — PSID 1999–2013: semi-structural MPC from responses to transitory income shocks (group-level; wide CIs).

U.S. — CEX 2001–2002: MPC from 2001 tax-rebate timing (group-level; wide CIs).

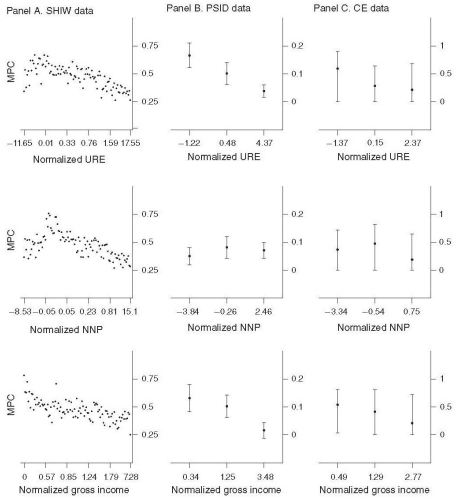
Methodology

Build exposures per household: URE from near-term assets, liabilities, and planned spending; NNP from nominal assets minus nominal debt; income from survey.

Normalize exposures by sample mean consumption ("years of consumption" units). MPCs are annual.

MPC identification: SHIW = stated windfall share; PSID = map Δc to transitory income shocks in a light consumption–savings model; CEX = spending response to randomized rebate timing.

Figure 2 — MPC vs Exposures



Dang

Acconcia etal, 2014, AER, Mafia and Public Spending: Evidence on the Fiscal Multiplier from a Quasi-Experiment

- A law was introduced in 1991 in Italy to combat the Mafia infiltration into public administration.
  - Entire city council would be removed if they were accused of affiliating with Mafia.
  - Stop local public works and investment projects.

- Data: output and public investment spending in each province between 1990-1999.

$$Y_{it} = \beta G_{it} + \alpha_i + \lambda_t + \gamma X_{it} + v_{it}$$

- Identification: instrument public spending by the number of municipalities councils being removed.
  - Relevance: Spending from previous administration was largely cut.
  - Exclusion restrictions: The arrests were quick, unanticipated, and not related to local economic activity.

Results

TABLE 4—PUBLIC SPENDING MULTPLIER

	OLS		2SLS		2SLS	
			First stage	Second stage	First stage	Second stage
$G(t)$	0.21**	0.23**		1.46**		1.55***
	[0.07]	[0.07]		[0.49]		[0.43]
$G(t-1)$	0.22**	0.26**	−0.41***	0.73***	−0.41***	0.79***
	[0.08]	[0.08]	[0.07]	[0.21]	[0.07]	[0.19]
$G(t-2)$	0.00	0.04	−0.13*	0.14	−0.13*	0.19
	[0.07]	[0.07]	[0.06]	[0.11]	[0.06]	[0.11]
$Y(t-1)$		−0.16*			0.03	−0.20**
		[0.06]			[0.02]	[0.06]
$Y(t-2)$		−0.03			−0.02	−0.02
		[0.05]			[0.02]	[0.05]
$CDS1(t)$			−2.07***		−1.97***	
			[0.54]		[0.56]	
$CDS2(t-1)$			−4.02***		−4.08***	
			[0.98]		[0.94]	
F-stat instruments			12.58		11.83	
Observations	950	950	950	950	950	950

- The output multiplier is around 1.5.
- There is also dynamic effect: lagged spending influences current output.

Patrick

The Employment Effects of Credit Market Disruptions

Firm-Level Evidence from the 2008–09 Financial Crisis

Author: Gabriel Chodorow-Reich (2014)

Northwestern University

September 29, 2025

There'd be a set of economists who'd sit around explaining that electricity was only four percent of the economy, and so if you lost eighty percent of electricity you couldn't possibly have lost more than three percent of the economy... (Larry Summers)

Setup: Context, Data, Method

- 2008–09 crisis: banks hit by losses $\Rightarrow$ tighter credit supply.
- Question: Did lower credit supply *causally* reduce firm employment?
- U.S. nonfinancial firms linked to their *pre-crisis* relationship banks; bank balance-sheet exposures (e.g., to MBS) measured before the shock; outcomes: firm employment (and related margins) during 2008–09.
- Use bank exposure to toxic assets as an instrument for firm-level credit supply to address selection.

$$\Delta \log L_{i,\text{08–09}} = \beta \cdot \widehat{\text{CreditShock}}_i + \gamma X_i + \mu_{\text{industry}} + \varepsilon_i$$

$$\text{where } \widehat{\text{CreditShock}}_i = \sum_b w_{ib}^{\text{pre}} \cdot \text{Exposure}_b^{\text{pre}}$$

Interpretation: $\beta < 0$ captures the causal employment effect of tighter credit supply, holding demand/industry factors fixed.

Effect size

A one–standard-deviation worsening in a firm's *predicted* credit supply $\Rightarrow \approx$ **3% lower employment** in 2008–09 for the exposed firm.

Tighter Credit ⇒ More Pronounced Job Losses

- "Worsening credit supply" is *exogenous* variation from pre-crisis bank exposure (assigned via pre-crisis links).
- Not driven by weaker firms selecting weak banks: identification uses relationships formed *before* the shock.
- Robust across controls, alternative exposure measures, and sample cuts.
- Convincing *credit-supply channel* to real activity; micro-to-macro bridge: banking stress translated into sizable job losses at connected firms.

TABLE IX

THE EFFECT OF LENDER CREDIT SUPPLY ON EMPLOYMENT

	(1)	(2)	(3)	(4)	(5)	(6)
	Employment growth rate 2008:3–2009:3					
	OLS		$\Delta\tilde{L}_{i,s}$ instrumented using			
			Lehman exposure	ABX exposure	Bank statement items	All
Explanatory variables						
%Δ loans to other firms ($\Delta\tilde{L}_{i,s}$)	1.17*	1.67**	2.49*	3.17*	2.13*	2.38**
	(0.58)	(0.61)	(1.00)	(1.35)	(0.88)	(0.77)
Lagged employment growth		0.0033	0.0039	0.0045	0.0036	0.0039
		(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Emp. change in firm's county		0.89*	0.85+	0.86+	0.87+	0.89+
		(0.43)	(0.46)	(0.48)	(0.45)	(0.46)
2-digit SIC, state, loan year FE	No	Yes	Yes	Yes	Yes	Yes
Firm size bin FE	No	Yes	Yes	Yes	Yes	Yes
Firm age bin FE	No	Yes	Yes	Yes	Yes	Yes
Bond access/public/private FE	No	Yes	Yes	Yes	Yes	Yes
Additional Dealscan controls	No	Yes	Yes	Yes	Yes	Yes
First-stage F-statistic			15.5	8.5	18.5	23.1
J-statistic p-value			.	.	.	0.190
$E[\hat{g}_j^y]$	−0.092	−0.092	−0.092	−0.093	−0.092	−0.093
$E[\hat{g}_j^y : \Delta\tilde{L}_{p_{90}} - \Delta\tilde{L}_{p_{10}}]$	0.027	0.039	0.058	0.074	0.050	0.055
Lead lender 1 clusters	43	43	43	40	43	40
Lead lender 2 clusters	43	43	43	40	43	40
Observations	2,040	2,040	2,040	2,015	2,040	2,015

Huben

One Empirical Result from ***Macroeconomic Effects of Federal Reserve Forward Guidance by Campbell et al.***

Presenting: Huben Liu, Sep 29, 2025

Background:
FOMC (Federal Open Market Committee) changes the target rate and communicates the expected future path of rates.

Example (June 24, 2009)
Federal funds target rate (%) 0 – 0.25
Relevant language: "Economic conditions are likely to warrant exceptionally low levels of the federal funds rate for an extended period… The committee expects that inflation will remain subdued for some time."

Question
When the policy rate is at (or near) zero, can the Fed meaningfully move the economy (or asset prices as in this empirical finding) solely by communicating the future path of rates in FOMC announcements?

Data and Method:
Extending Gürkaynak et al., the authors use intraday federal fund rate futures and Eurodollar futures data to construct two factors:
Target factor: surprise changes in the federal funds target
Path factor: changes in future monetary policy actions

Table 6. Regressions Estimating Asset Price Responses to Target and Path Factors, August 2007–December 2011[a]

Asset	*Target factor*	*Path factor*	*Adjusted R^2*
Treasuries			
2 years to maturity	0.592***	0.716***	0.79
	(0.096)	(0.160)	
5 years to maturity	0.404***	0.898***	0.66
	(0.143)	(0.165)	
10 years to maturity	0.250*	0.877***	0.58
	(0.131)	(0.103)	
Corporate bonds[b]			
Aaa/AAA-rated	0.058	0.631***	0.45
	(0.079)	(0.085)	
Baa/BBB-rated	0.065	0.556***	0.34
	(0.085)	(0.117)	

Forward guidance (besides current surprise changes in federal funds target) can move asset prices.
This is likely by changing future expectations

**See the authors' paper for additional results, further identification strategies, and an interest-rate policy model.*

Sergio

EMPIRICAL RESULT

TABLE I

CROSS-STATE ESTIMATES OF WAGE ELASTICITIES DURING THE GREAT RECESSION

Wage Measure	Estimated Elasticity
Nominal Wages	0.72
	(0.14)
Real Wages	0.64
	(0.16)

Note: Table reports the simple bivariate relationship between state employment growth between 2007 and 2010 and state demographically adjusted wage growth between 2007 and 2010. Wage data come from the ACS and are demographically adjusted as described in the text. Real wages are deflated using our Retail Scanner Price Index. Robust standard errors are in parentheses.

TABLE II

TIME SERIES ESTIMATES OF WAGE ELASTICITIES DURING THE GREAT RECESSION

	CPS Data	ACS Data
Panel A: Nominal Wages		
De-Trended Nominal Wage Growth, 2007–2010	−3.9 percent	−4.1 percent
Nominal Wage Elasticity, 2007–2010	0.51	0.54
Panel B: Real Wages		
De-Trended Real Wage Growth, 2007–2010	−2.6 percent	−2.8 percent
Real Wage Elasticity, 2007–2010	0.34	0.37

Note: Table computes the aggregate wage elasticity to a 1 percent change in the employment rate. During the 2007–2010 period, the aggregate employment rate fell by 7.7 percent. The first column shows demographically adjusted wage data from the CPS, while the second column shows demographically adjusted wage data from the ACS. Panels A and B show de-trended nominal and real wage growth, respectively, during the 2007–2010 period.

DISCUSSION

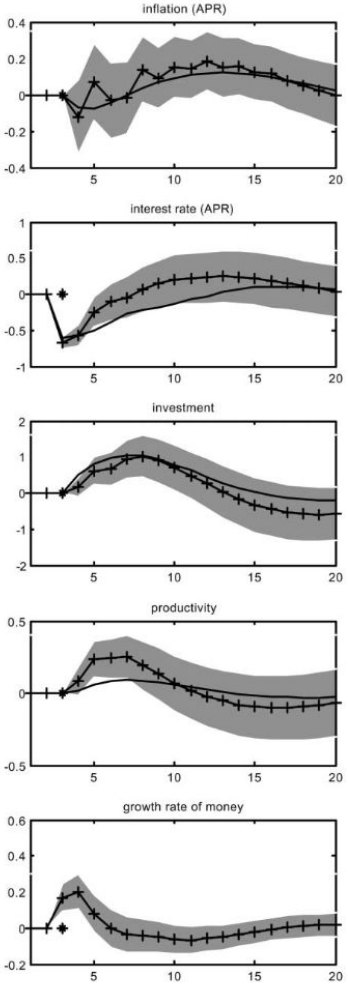
- **Context:** Changes in employment and wages in the Great Recession
- **Data:** ACS for state-level data, and CPS for aggregates
- **Methodology:** just raw correlations, with slight corrections to account for trends and changes in workforce composition
- **Possible Explanations**:
    1. Mechanisms that operate at regional level, but not at aggregate level (eg labor mobility across states)
    2. Shocks that only affect aggregate level that are differenced out (eg national-wide labor supply shock)
- **Takeaway:** pay attention to how empirical estimates are constructed and how they map to your model.

Ethan

$$R_t = f(\Omega_t) + \epsilon_t.$$

$$\boldsymbol{Y}_t = [\boldsymbol{Y}_{1t}, R_t, \boldsymbol{Y}_{2t}]'.$$

$$\boldsymbol{Y}_t = \boldsymbol{A}_1 \boldsymbol{Y}_{t-1} + \cdots + \boldsymbol{A}_4 \boldsymbol{Y}_{t-4} + \mathbf{C}\boldsymbol{\eta}_t,$$



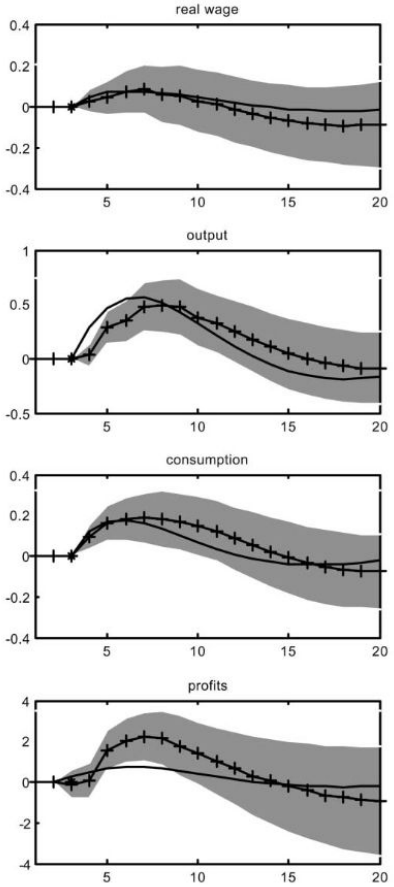


FIG. 1.—*Continued*

Jade

LETTER GRADING GOVERNMENT EFFICIENCY

Econ 416 Presentation 1: Empirical Fact

Alberto Chong, Florencio Lopez-de-Silanes, Rafael La Porta, Andrei Shleifer

September 28, 2025

Context: Using A Simple Measure to Gauge Government Efficiency

Proxy of government productivity: returning an incorrectly addressed international letter by the mail system. Returning and doing so faster indicate higher efficiency.
Sent letters to non-existent business addresses in 159 countries: two letters in each country's largest five cities.
The experiment estimates the ratio of letter returned $r = dR/dS$, where

$$R = A * F(K, L, S) = A * K^{\alpha} * L^{1-\alpha} * ln(S)$$

denotes the number of returned letters, and S denotes the number of incorrectly-addressed letters.
Since r is often equal to zero in our sample, we estimate an approximation given by

$$ln(1 + \frac{r * S}{L}) = constant + a * technology + b * management + \alpha * Ln(\frac{K}{L}) + \epsilon$$

Result

TABLE 5. Public sector management quality and mail efficiency.

	$\text{Ln}\left(1+\frac{r*S}{L}\right)$				
Ln letter boxes per staff	0.248	0.289	0.260	0.487*	0.181
	[0.255]	[0.268]	[0.283]	[0.265]	[0.325]
Postcode databases	2.066**	2.231***	2.080***	2.661***	2.513***
	[0.911]	[0.800]	[0.668]	[0.914]	[0.888]
Alphabet used is Latin-based	0.984	0.587	0.493	1.126	−0.341
	[0.681]	[0.651]	[0.647]	[0.808]	[0.624]
Ln distance from country to US	−0.404	−0.426	−0.199	−0.229	−0.059
	[0.348]	[0.328]	[0.313]	[0.354]	[0.557]
Weberian public administration	1.605***				
	[0.384]				
Professional and non-political public administration		0.953***			
		[0.220]			
Hired for skills and merits			0.933***		
			[0.239]		
Closed public administration				0.562*	
				[0.309]	
Public management performance					0.639***
					[0.203]
Constant	4.715	7.981***	5.860*	6.762*	4.099
	[3.366]	[2.991]	[2.985]	[3.622]	[5.179]
Observations	102	103	103	103	117
Adj. *R*-squared	0.39	0.37	0.39	0.31	0.26

Notes: The table presents robust OLS regressions for all the countries in our sample. Robust standard errors are shown in parentheses under each coefficient. Significance levels: $^{*}p < 0.10$; $^{**}p < 0.05$; $^{***}p < 0.01$.

Mengdi

Government Spending Multipliers in Good Times and in Bad: Evidence from US Historical Data (Valerie A. Ramey and Sarah Zubairy, 2018)

- **GOAL**: Study the US government spending multipliers during periods of **economic slack** or when interest rates are near the **zero lower bound**. (whether it will be higher?)
- Construct new **historical quarterly US national account data** from 1889 to 2015.
- Main Result:
  - Irrespective of the amount of slack (measured by unemployment rate): Below 1.
  - Around zero lower bound: The results are more mixed.
- Methodology:
  - Baseline: If I want to estimate impulse responses function. *shock* : military news shock.

$$x_{t+h} = \alpha_h + \psi(L) z_{t-1} + \beta_h shock_t + \epsilon_{t+h} \quad \text{for } h = 0, 1, 2, \ldots$$

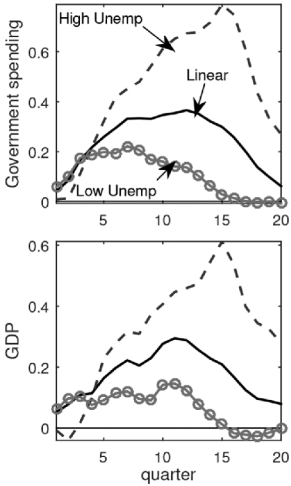
  - Adapt to state dependent model:

$$x_{t+h} = I_{t-1}[\alpha_{A,h} + \psi_{A,h}(L) x_{t-1} + \beta_{A,h} shock_t] + (1 - I_{t-1})[\alpha_{B,h} + \psi_{B,h}(L) x_{t-1} + \beta_{B,h} shock_t] + \epsilon_{t+h}$$

  - If I'm interested in cumulative multiplier. g_{t+j} : change in government spending variable

$$\sum_{j=0}^{h} y_{t+j} = \gamma_h + \phi_h(L) z_{t-1} + m_h \sum_{j=0}^{h} g_{t+j} + \omega_{t+h} \quad \text{for } h = 0, 1, 2, \ldots$$

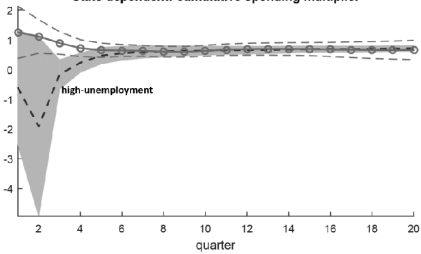
Baseline Results for Slack States



Cumulative Multipliers (slack)

	Linear Model	High Unemployment	Low Unemployment
Military news shock:			
2-year integral	.66	.60	.59
	(.067)	(.095)	(.091)
4-year integral	.71	.68	.67
	(.044)	(.052)	(.121)

State dependent: cumulative spending multiplier



Cumulative Multipliers (ZLB)

Baseline	Linear Model	Near Zero Lower Bond	Normal
Military news shock:			
2-year integral	.66	.77	.63
	(.067)	(.106)	(.149)
4-year integral	.71	.77	.77
	(.044)	(.058)	(.376)
Blanchard-Perotti shock:			p value < 0.05
2-year integral	.38	.64	.10
	(.111)	(.033)	(.112)
4-year integral	.47	.71	.12
	(.110)	(.033)	(.115)

State dependent: cumulative spending multiplier