Discussion: What Can Repatriation Tax Holidays Teach Us About Monetary Policy Transmission? by Esteban Argudo

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Monetary Policy Transmission

Bank Lending Channel of Monetary Policy

- Theoretically important channel
  - Basic view of MP: nonneutrality arises if movements in reserves affect real interest rates, banks are essentially pass-through only
  - If banks provide intermediated loans: changes in reserves may have independent impact on the supply of loans

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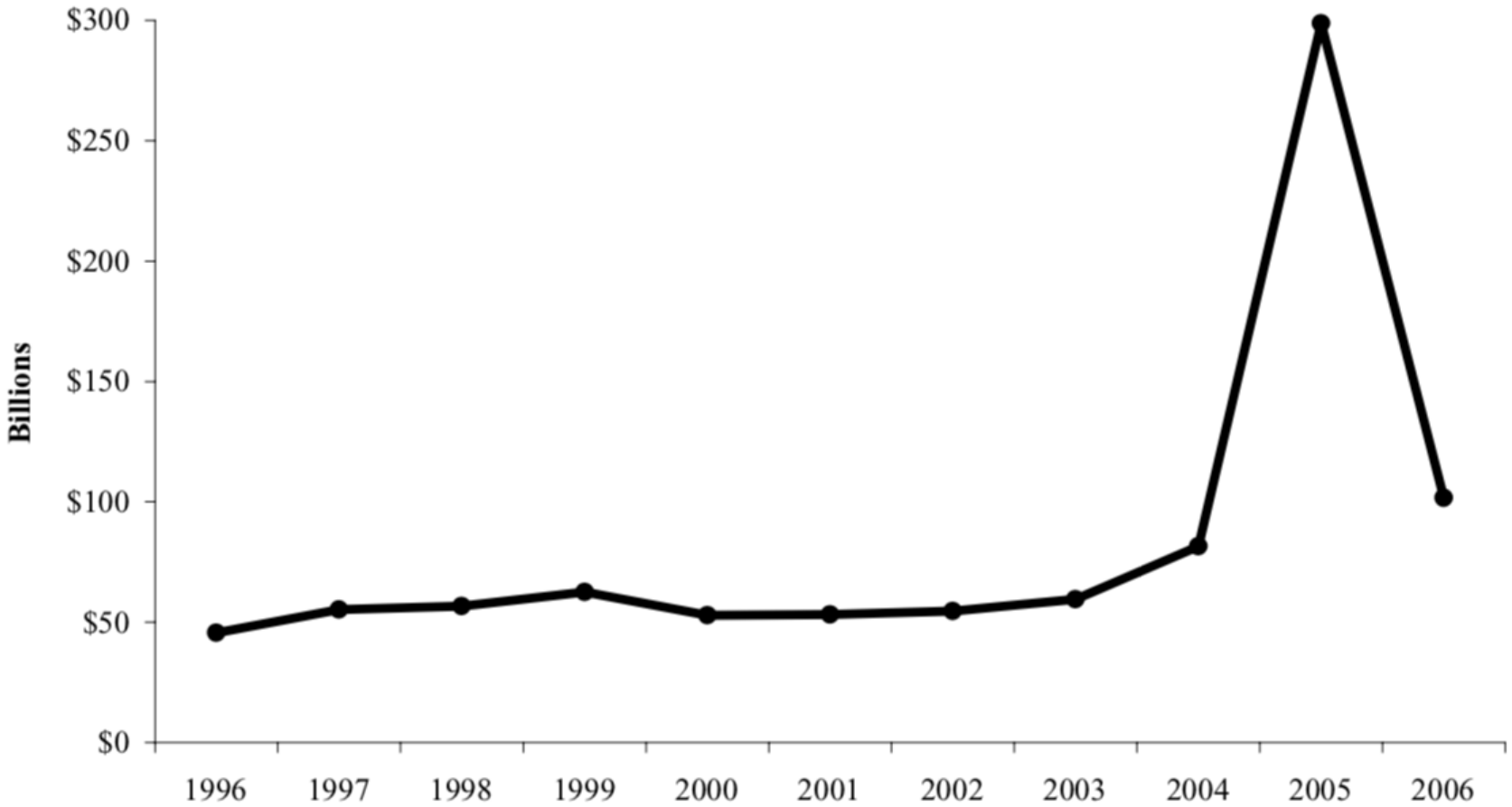
- Theoretically important channel
  - Basic view of MP: nonneutrality arises if movements in reserves affect real interest rates, banks are essentially pass-through only
  - If banks provide intermediated loans: changes in reserves may have independent impact on the supply of loans
- Empirically challenging
  - Prediction: monetary tightening $\Longrightarrow \downarrow$ bank lending
  - Empirically: unclear; difficult to control for MP's affect on loan demand

Taking a Page Out of the PF Book

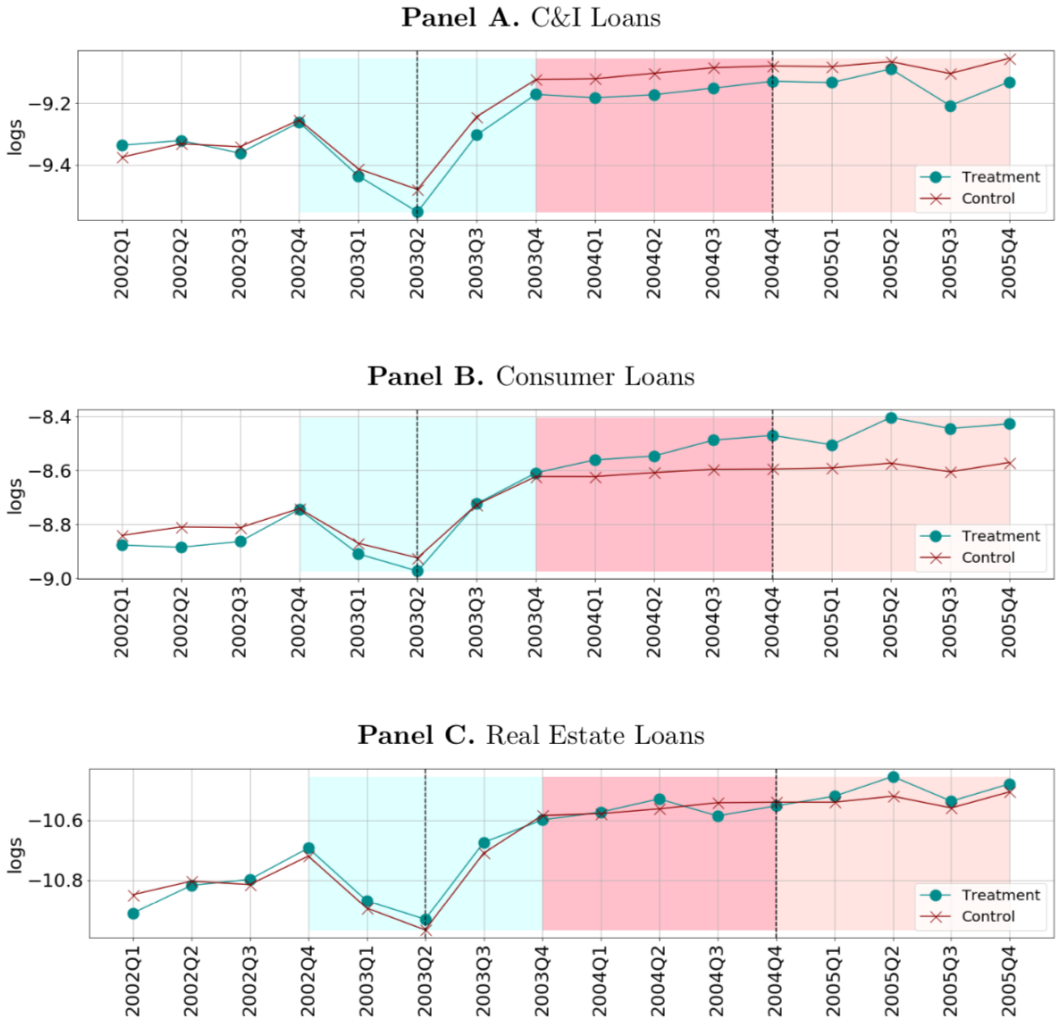
- Tax changes as a natural experiment which mimic monetary shocks
- **Repatriation holiday:** temporary reduction in U.S. foreign repatriation tax
- $\Longrightarrow$ reduction in internal cost of funding
  - $\approx$ increase in access to reserves (monetary policy easing)

Homeland Reinvestment Act (AJCA 2004)



Notes: Total repatriations by U.S. multinational companies. (Dharmapala et. al. 2011)

Event Study Results



Notes: Lending behavior of banks with and without foreign holdings before and after the AJCA.

Regression Results I

$$y_{it} = \gamma D_{it}^{AJCA} + controls_{it} + \varepsilon_{it}$$

	Type of Loan				
	(1)	(2)	(3)	(4)	(5)
	All	C&I	Real Estate	Consumer	Securities
	A. Anticipation Period ($N = 46,624$)				
AJCA Effect	-0.000	0.005	-0.002	-0.001	0.004
	(0.009)	(0.012)	(0.013)	(0.015)	(0.024)
Adj. R^2	0.099	0.009	0.043	0.024	0.123
	B. IRepatriation Period - Pre-Enactment ($N = 72,455$)				
AJCA Effect	0.007	0.023*	0.002	0.005	0.018
	(0.007)	(0.009)	(0.012)	(0.008)	(0.025)
Adj. R^2	0.097	0.010	0.046	0.023	0.099
	C. Repatriation Period - Full ($N = 97,177$)				
AJCA Effect	0.005	0.030***	-0.005	0.004	0.003
	(0.006)	(0.009)	(0.010)	(0.008)	(0.018)
Adj. R^2	0.096	0.012	0.049	0.023	0.083

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Regression Results II

$$y_{it} = \kappa \Delta CF_{it} + controls_{it} + \varepsilon_{it}$$

	Type of Loan				
	(1)	(2)	(3)	(4)	(5)
	All	C&I	Real Estate	Consumer	Securities
	A. Anticipation Period ($N = 46,165$)				
AJCA Effect $\times\Delta$ cash abroad	0.004	-0.009	-0.003	0.005	0.015
	(0.013)	(0.018)	(0.017)	(0.031)	(0.023)
Adj. R^2	0.101	0.010	0.042	0.024	0.125
	B. Repatriation Period - Pre-Enactment ($N = 71,748$)				
AJCA Effect $\times\Delta$ cash abroad	-0.005	-0.019**	0.005	-0.006	-0.048
	(0.002)	(0.007)	(0.003)	(0.013)	(0.030)
Adj. R^2	0.098	0.010	0.047	0.023	0.100
	C. Repatriation Period - Full ($N = 96,313$)				
AJCA Effect $\times\Delta$ cash abroad	-0.005**	-0.015**	0.003	-0.006	-0.030
	(0.002)	(0.005)	(0.003)	(0.010)	(0.026)
Adj. R^2	0.098	0.013	0.050	0.024	0.084

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Explore Monetary Channels with non-MP Shocks!

- Important insight: we can study the channels of monetary policy from non-monetary shocks
- Theory gives plausible channels through which MP works
- Don't necessarily need to rely on problematic policy shocks to study these channels
- Request: what are the quantitative implications for MP?

Was it a Repatriation Shock?

- Concern with institutional details
- Law passed in October 2004; additional important guidance from the Treasury released in February, May, and September 2005
- PF party line: firms exploited repatriation holiday to reward owners

Policymaker Skepticism

"Hewlett-Packard has announced a repatriation of $14.5 billion, layoffs of 14,500 workers and stock buybacks of more than $4 billion for the first half of 2005, about three times the size of its buybacks in the period a year earlier." [NYT]

"[T]he largest beneficiaries of the holiday actually cut jobs in 2005-06 – despite overall economy-wide job growth in those years – and many used the repatriated funds simply to repurchase stock or pay dividends. The tax treatment of overseas earnings could be considered as a part of broader corporate tax reform, but...would not be sensible to consider a repatriation holiday outside of that context." [Obama Treasury]

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- Full event study: estimate and plot the coefficients period-by-period
- Collect actual repatriation data
  - Tax forms? IRS reports only a small number of firms in finance industry took advantage of tax holiday
  - Not many multinational banks regardless
- Instrument repatriation with pre-determined tax benefit (Dharmapala et. al. 2011, Faulkender and Petersen 2012)

Broader Policy Implications?

- If these concerns are alleviated, seems to suggest an unappreciated stimulative effect of repatriation holiday
- In the future: repatriation for banks (lending) only?