Discussion of

Financial Flexibility and Corporate Cash Policy

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What Does it Do?

Collateral Values → **Cash Holdings**
(This paper)

Shocks to collateral value
due to changes in real estate prices

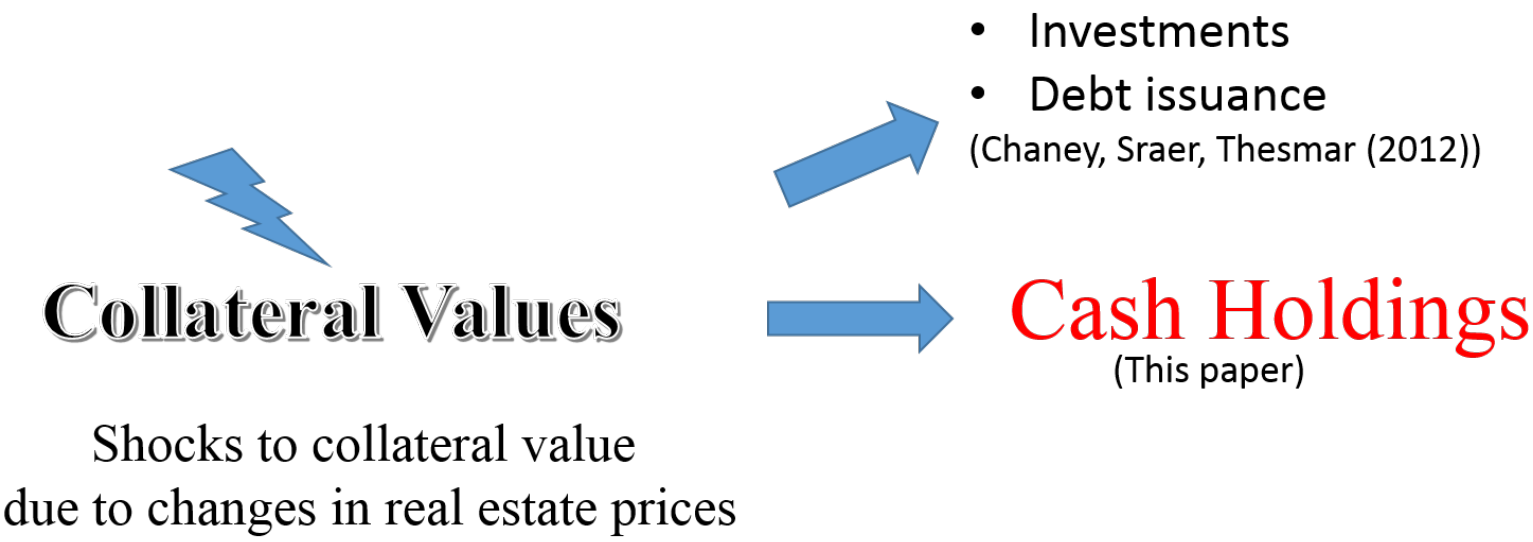
Tests:

1. Cash Holdings = f (Real Estate Value)
   a) Full sample
   b) Sub-samples
      I. Growth opportunities
      II. Financial constraints
      III. Governance
      IV. Real estate price volatility
2. Market Value of Cash (interact with REA)
3. Cash Flow Sensitivity of Cash (Interact with REA)

Faulkender and Wang (2006)

Almeida, Campello, and Weisbach (2004)

Context


Collateral Values
Shocks to collateral value
due to changes in real estate prices
• Investments
• Debt issuance
(Chaney, Sraer, Thesmar (2012))
Cash Holdings
(This paper)

More Extensions

Collateral Values

Shocks to collateral value
due to changes in real estate prices

- Investments
- Debt issuance

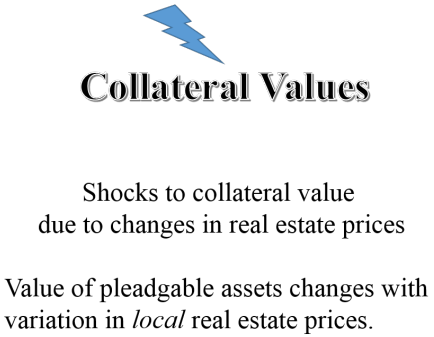
(Chaney, Sraer, Thesmar (2012))

Cash Holdings

(This paper)

- Credit spreads
- Debt maturity
- Debt covenants
- Trade credit
- Payout policy
- R&D
- Innovation
- Relationship lending ....

Comments: Identification



- Market value of the entire real estate portfolio can be estimated only before 1993. Subsequent variations (1993-2007) only capture fluctuations in the market values of these specific assets.
- Firms own most of the real estate in the state where their HQs are located.
- Residential real estate prices is a good proxy for commercial real estate prices.

Comment: Location of Real Estate

Johnson & Johnson

The locations of the manufacturing facilities by major geographic areas of the world are as follows:

Geographic Area	Number of Facilities	Square Feet (in thousands)
United States	52	6,537
Europe	37	8,137
Western Hemisphere, excluding U.S.	17	3,455
Africa, Asia and Pacific	33	3,648
Worldwide Total	139	21,777

In addition to the manufacturing facilities discussed above, Johnson & Johnson and its subsidiaries maintain numerous office and warehouse facilities throughout the world. Research facilities are also discussed in Item 1 under "Business—Research and Development."

Johnson & Johnson's subsidiaries generally seek to own their manufacturing facilities, although some, principally in locations abroad, are leased. Office and warehouse facilities are often leased.

: Johnson & Johnson, 2013 10-K Filing

Comments: Supply Elasticity as an Instrument for Real Estate Prices

- Davidoff (2013) argues that volatility in prices cannot be attributed to inelastic supply.
- It is the high demand growth and not the inelastic supply that resulted in greater volatility in housing prices in 2000s.
  - During the last decade, markets with highly elastic supply such as (a) Naples, FL; (b) Las Vegas; NV and (c) Phoenix, AZ saw more volatile housing prices. Prices increased rapidly between 2003 and 2006 and then declined steeply in 2007.
  - Much more so than the usual suspects along the coasts between San Francisco and San Diego and between Boston and New York.

Comment: Investment Opportunities and Real Estate Values

- Replicate the tests on a sample of small firms in large cities.

Comments: Firm's Decision to Own Real Estate

- Firms that own real estate are also more sensitive to local demand shocks.
- To address this concern, the paper control for observable determinants in the ownership decision.
  - Thus, it controls for firm age, firm size, and ROA.
- However, real-estate owners may differ from non-owners on some of the same dimensions that are used for classification of firms into various groups:
  - Financial constraints
  - Growth opportunities
  - Governance

Comments: Market-to-Book Ratios

$$\text{Tobin's Q ratio} = \frac{\text{Market Value of Assets}}{\text{Replacement Value}} \tag{1}$$

- Real estate values affect the replacement value of assets. So, growth opportunities (measured by M/B ratio in the paper) are more mismeasured for firms with large changes in real estate values.
- It affects both the regressions that control for M/B, and sorts based on M/B.

Panel A. High vs. Low Growth Opportunity

	Dependent Variable					
	Cash/Assets		Cash/Net Assets		Log(Cash/Net Assets)	
	Growth Opportunity		Growth Opportunity		Growth Opportunity	
	High	Low	High	Low	High	Low
	(1)	(2)	(3)	(4)	(5)	(6)
RE value (using MSA real estate price index)	-0.080***	-0.025***	-0.117***	-0.028***	-0.497***	-0.072*
	[0.008]	[0.004]	[0.015]	[0.008]	[0.062]	[0.043]

Comments: Placebo Tests

- Real estate price index does not play a significant role in cash holdings for both firms that own real estate and for those that do not.

Panel B. Placebo Tests: Firms without Real Estate Assets Holding

	Dependent Variable	
	Δ(Cash/Assets)	Δ(Cash/Net Assets)
	(1)	(2)
MSA real estate price index	-0.016	-0.058
	[0.013]	[0.077]
Market/book	0.007***	0.026***
	[0.001]	[0.004]

	Dependent Variable			
	Cash/Assets		Cash/Net Assets	
	OLS	IV	OLS	IV
	(1)	(2)	(3)	(4)
RE value (using MSA real estate price index)	-0.026***	-0.034***	-0.017***	-0.072***
	[0.003]	[0.007]	[0.006]	[0.013]
MSA real estate price index	0.028	0.045	0.197*	0.195
	[0.069]	[0.688]	[0.116]	[0.644]

Panel A. Change Regressions

	Dependent Variable					
	Δ(Cash/Assets)			Δ(Cash/Net Assets)		
	OLS	OLS	Firm FE	OLS	OLS	Firm FE
	(1)	(2)	(3)	(4)	(5)	(6)
Δ(RE value (using state real estate price index))	-0.142***			-0.327***		
	[0.010]			[0.048]		
Δ(RE value (using MSA real estate price index))		-0.145***	-0.154***		-0.344***	-0.281***
		[0.011]	[0.012]		[0.048]	[0.055]
State real estate price index	-0.015**			-0.065		
	[0.008]			[0.042]		
MSA real estate price index		-0.016**	-0.017		-0.067*	-0.075
		[0.006]	[0.017]		[0.034]	[0.080]

Comments: Cleaning Up

- Present fewer specifications. It does not seem to matter whether:
  - The dependent variable is $\frac{Cash}{Assets}$ or $\frac{Cash}{\text{Net Assets}}$
  - Whether Real Estate values are constructed using state index or MSA index
- But, what does seem to matter is whether:
  - firm fixed effects are used or not
  - the regressions control for initial value$\times$RE Value
  - OLS or IV specification is used
- Subsample tests: Table 7 and Table 9

Conclusions

- The paper is addressing an important question. Takes a major step towards understanding the role of collateral values in explaining cash holdings.
- Uses an identification strategy that identifies exogenous shocks to collateral values
- Document the extent to which measurement errors affect the magnitudes of economic effects.
- Needs some cleaning up.