

Credit Expansion and Credit Misallocation

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Motivation

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In response to financial crisis 2007-2009, massive economic stimulus through monetary policy globally

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- ▶ **Common aim**: save the real economy from recession
- ▶ **Outcomes** (esp. emerging markets):
 - ▶ Economic stimulus with liquidity injections often ineffective
 - ▶ Meanwhile, booms in other sectors

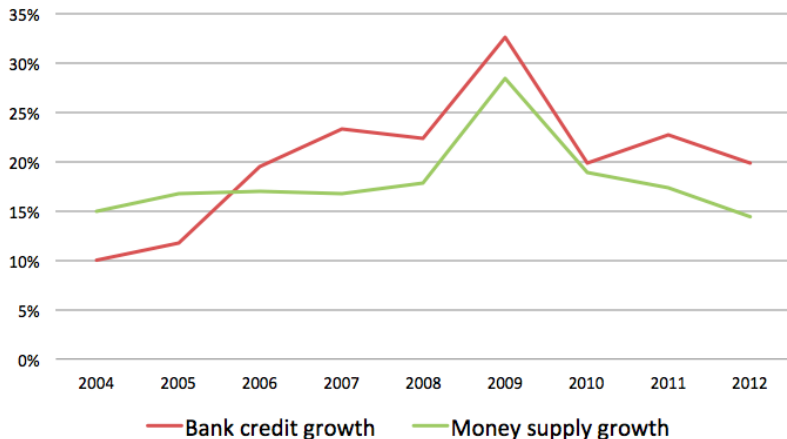
Evidence

Evidence – China

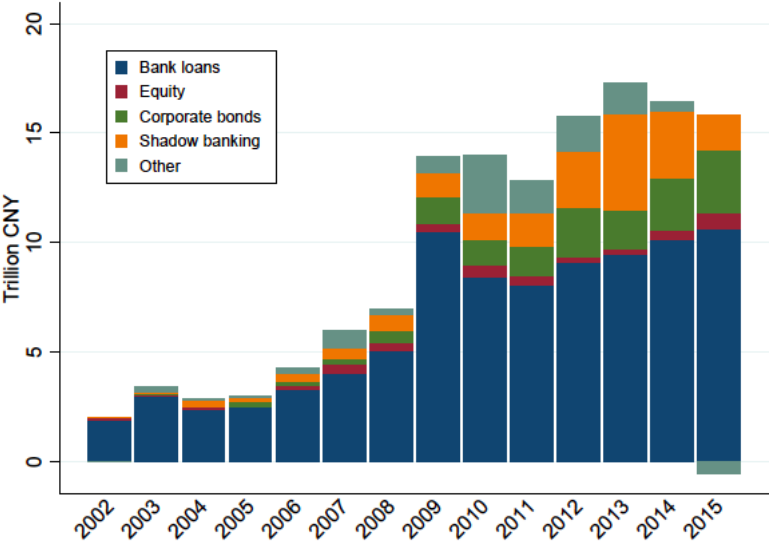
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- ▶ Bank lending doubled over 2008-10

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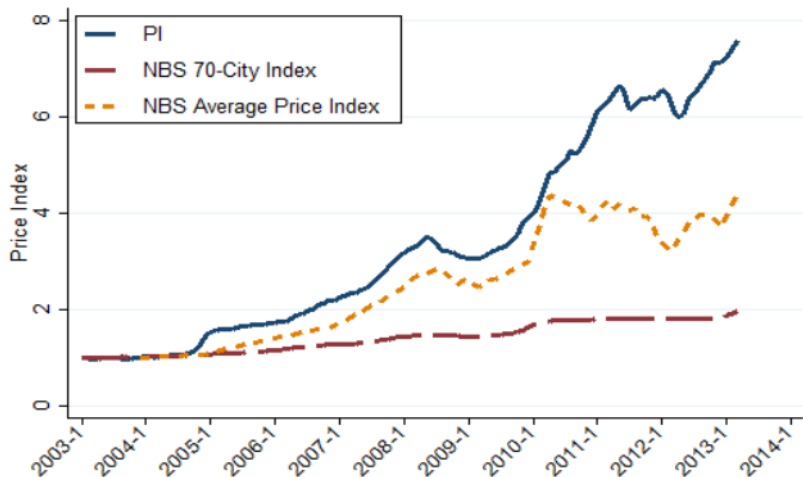


Evidence – Aggregate Credit



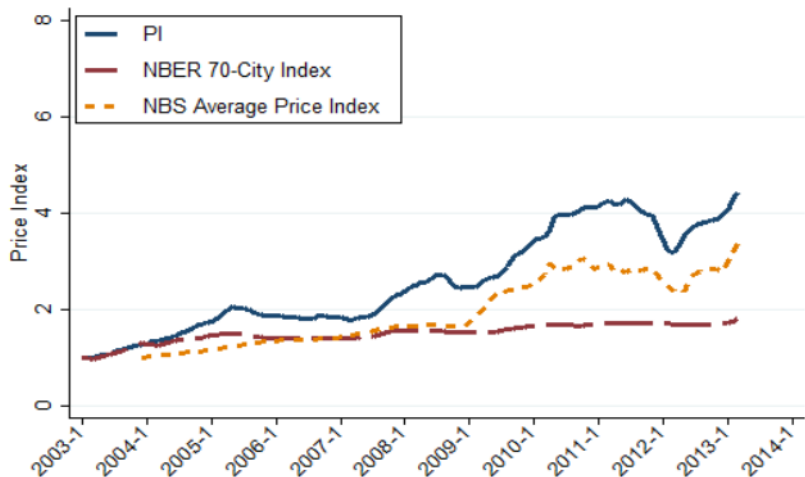
Source: Cong, Ponticelli (2017)

Evidence – Housing Boom (Beijing)



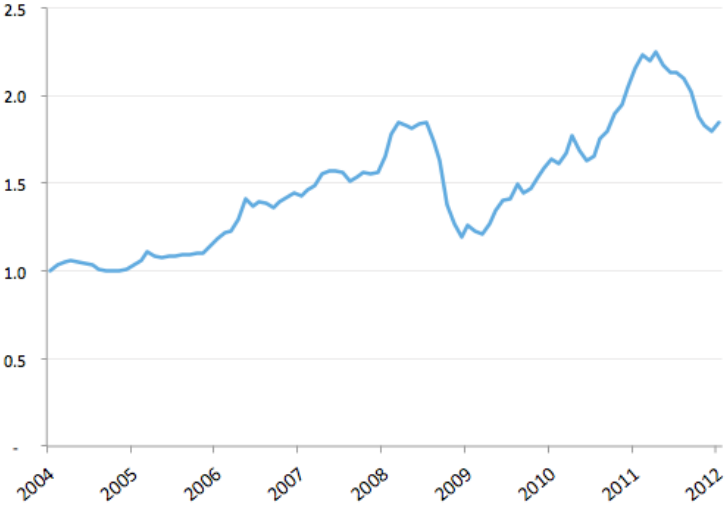
Source: Fang, Gu, Xiong, Zhou (2015)

Evidence – Housing Boom (Shanghai)



Source: Fang, Gu, Xiong, Zhou (2015)

Evidence – Commodities Boom



Source: Bloomberg

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Financial sector

- ▶ Real estate
- ▶ Commodities
- ▶ Stock market booms

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Real sector

- ▶ SMEs' difficulty in obtaining credit *after* stimulus
 - ▶ Borrowing rates rose to 30% in some regions in 2010
 - ▶ Left out of credit market altogether

Evidence – China experience not unique

Traditional and unconventional monetary policies globally

- ▶ US: credit easing

- ▶ Europe and Japan: quantitative easing

- ▶ Emerging economies: credit expansion

Evidence – China experience not unique

Traditional and unconventional monetary policies globally

- ▶ US: credit easing
 - ▶ Crowding-out of credit to real economy
[Chakraborty, Goldstein, MacKinlay \(2013\)](#)
 - ▶ Asymmetric effects on financial & real sectors
[Chakraborty, Goldstein, MacKinlay \(2016\)](#)
- ▶ Europe and Japan: quantitative easing
- ▶ Emerging economies: credit expansion

Research questions

What is optimal unconventional policy? What is its cost?

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Asset market boom

Excessive liquidity creates crowding-out, hurting the real economy

Basic idea

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Liquidity
supply

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Interest rate

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In general equilibrium:

Liquidity
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Liquidity
demand



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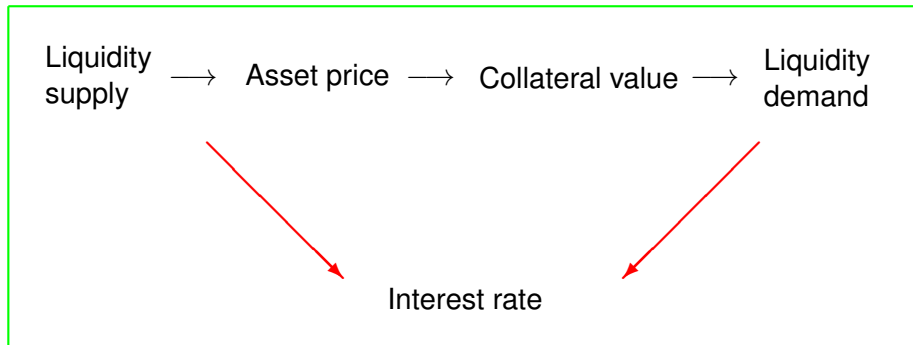
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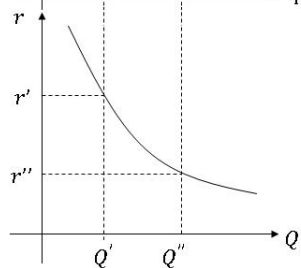
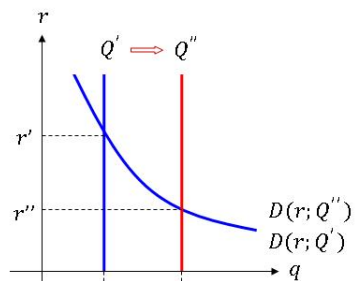


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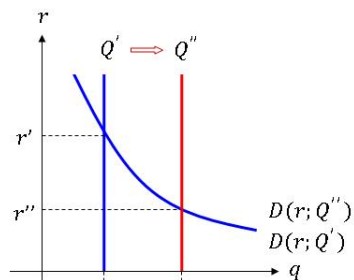


Intuition

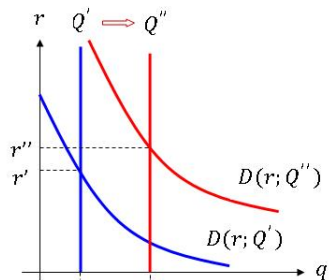


Sector I

Intuition



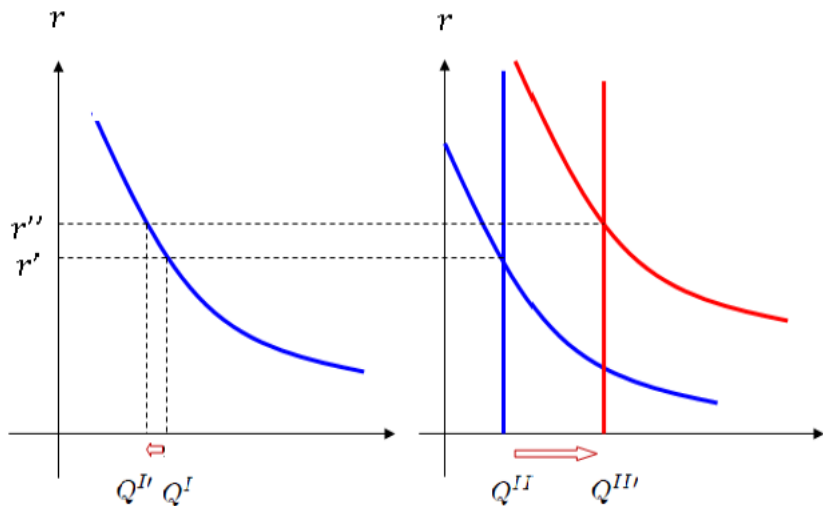
Sector I



Sector II

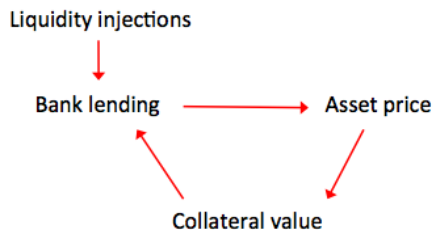
The Crowding-out Effect

Asset price responses are asymmetric across sectors



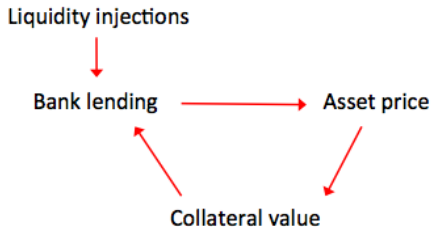
Basic idea

Liquidity and asset prices in reinforcing cycle

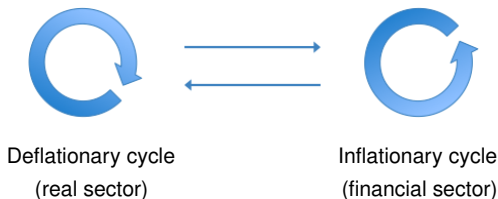


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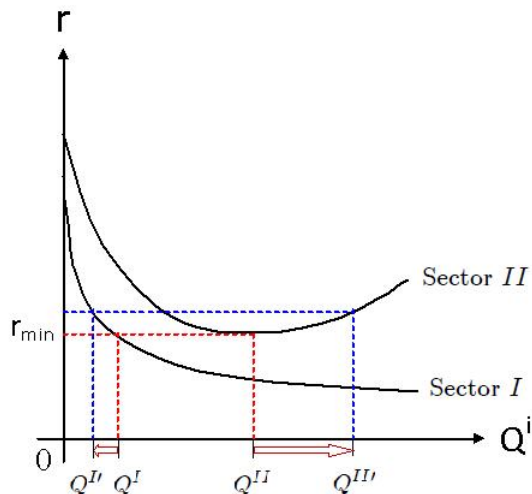


Two-sector economy: two opposing and self-reinforcing cycles

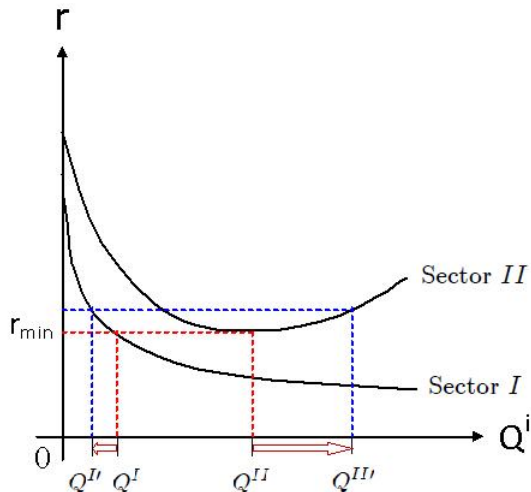


Optimal liquidity injection Q^*

Optimal liquidity injection $Q^* = Q^I + Q^{II}$



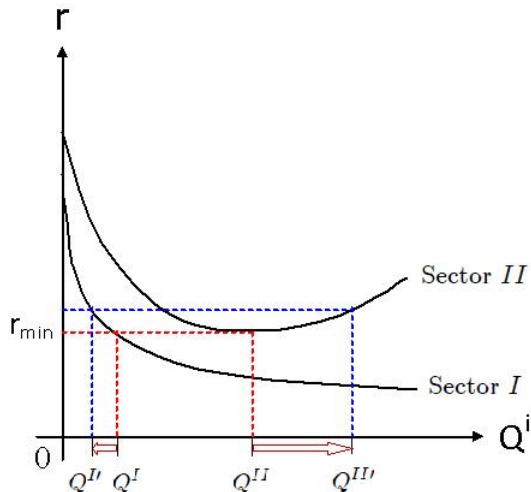
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Properties:

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2. When $Q > Q^*$:
Crowding-out effect

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Intuition: Liquidity in Sector II \uparrow \longrightarrow Interest rate \uparrow \longrightarrow Liquidity in Sector I \downarrow

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- ▶ *Excessive* monetary policy *distorts* credit market curtailing economics stimulus
- ▶ Limits of 'blunt' market-based policy
- ▶ Understanding micro-foundation of (credit) market important for policy design