Rethinking Financial Stability

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discussing Aikman, Haldane, Hinterschweiger, Kapadia

Peterson Institute: Rethinking Macro Conference Washington, DC, Oct 12th, 2017

A quick take on the paper

- Great overview of current regulatory framework
- Covers many corners, comprehensive and detailed

- My focus: “Shift in thinking about
  - Financial stability
  - Managing the macro-economy
  - Linkages between financial stability and monetary policy”

From … to

1. From "Stock/Flow focus" to "Risk focus"
   "Paradox of Prudence"

2. From "Risk in isolation" to "risk in spillovers"

3. From contemporaneous risk to hidden build-up of risk
   "Volatility Paradox"

4. From Separation principle to linkage between MacroPru & MoPo
   "Stealth recapitalization" through redistributive MoPo

5. Stability vs. Resilience

1. *From* Stock/Flows *to* Risk Focus

- From log-linearization (kills risk terms) to Volatility Dynamics
  - From one-time shocks to endogenously time-varying volatility
  - Precautionary savings
  - Flight to safety with serious portfolio choice

1. *From* Stock/Flows *to* Risk Focus

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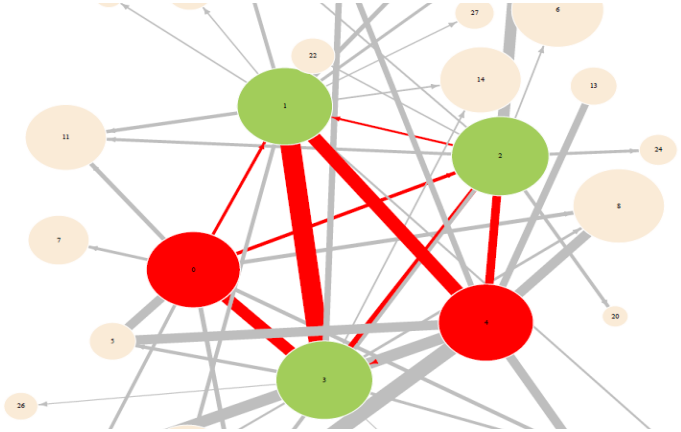
- Fallacy of Composition in Risk Space

1. Keynes' Paradox of Thrift

2. "Paradox of Prudence" Brunnermeier & Sannikov (Handbook chapter 2017)
   - Each institution tries to reduce risk exposure (micro-prudent)
   - Increases endogenous (systemic) risk (macro-imprudent)
     - Liquidity spirals, fire-sales,…
     - Disinflationary spirals, …

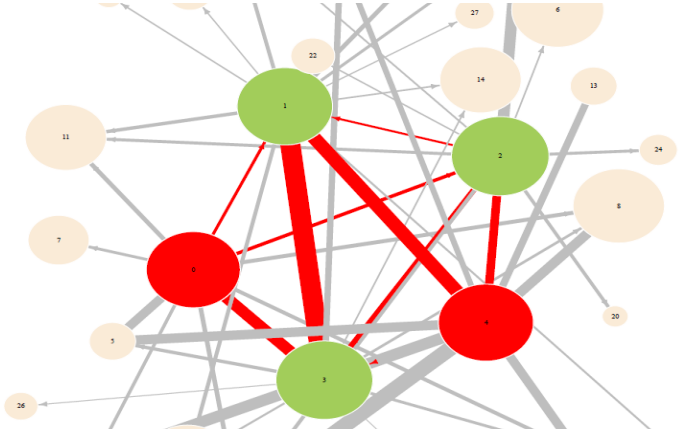
2. *From* Risk in Isolation *to* Spillovers

- Direct contractual: domino effect – *network*
  - Network effects
    - Bankruptcy of bank A leads to default of B
      - 1st, 2nd, 3rd round effects
      - Random recovery rate
    - <u>Data implications:</u>
      - Position data
      - High frequency
      - High granularity

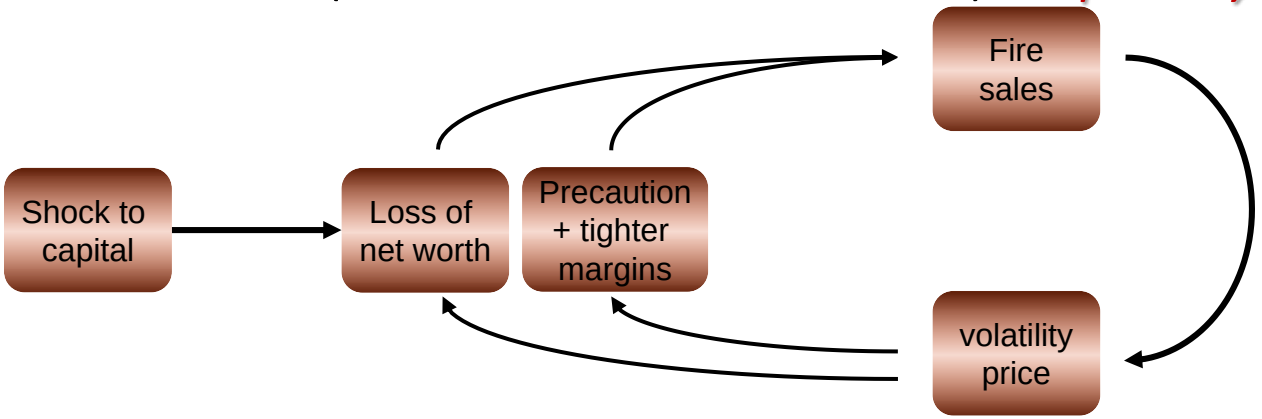


2. *From* Risk in Isolation *to* Spillovers

- Direct contractual: domino effect – *cross-section*
  - Network effects
    - Bankruptcy of bank A leads to default of B
      - 1st, 2nd, 3rd round effects
      - Random recovery rate



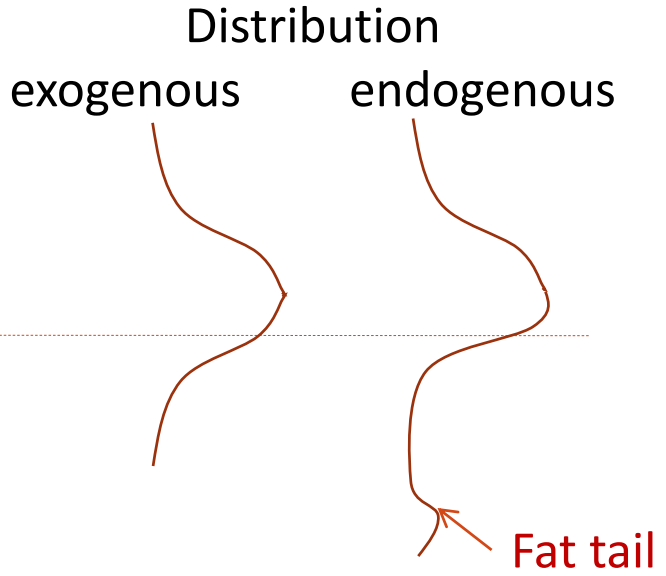
- Indirect
  - Price effects (fire-sale externalities), *liquidity spirals*

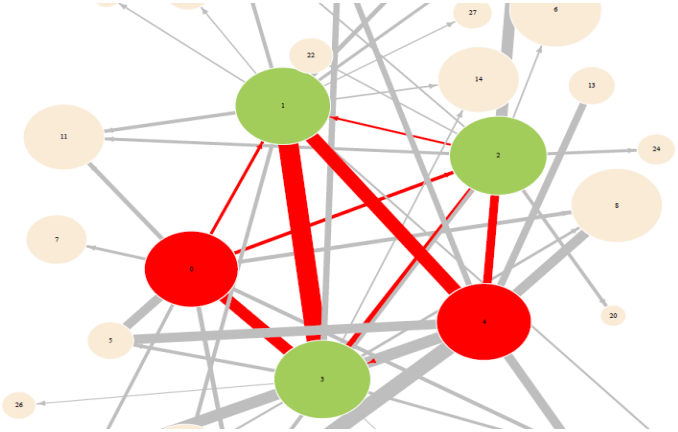


  - Adverse GE response ➡ Response Indicator (LMI)

“Response indicator”

- Shock absorber
- Shock amplifier





Direct	Indirect
Contractual links	“Virtual links”
Loss through bankruptcy/default	Similar exposure than other levered players
Position data	**Response indicator** - expectations/ constraints

3. *From* cont. risk *to* Hidden Build-up of Risk

- Systemic risk build-up during (credit) bubble
  … and materializes in a crisis *– time-series*
- "Volatility Paradox" contemp. measures inappropriate

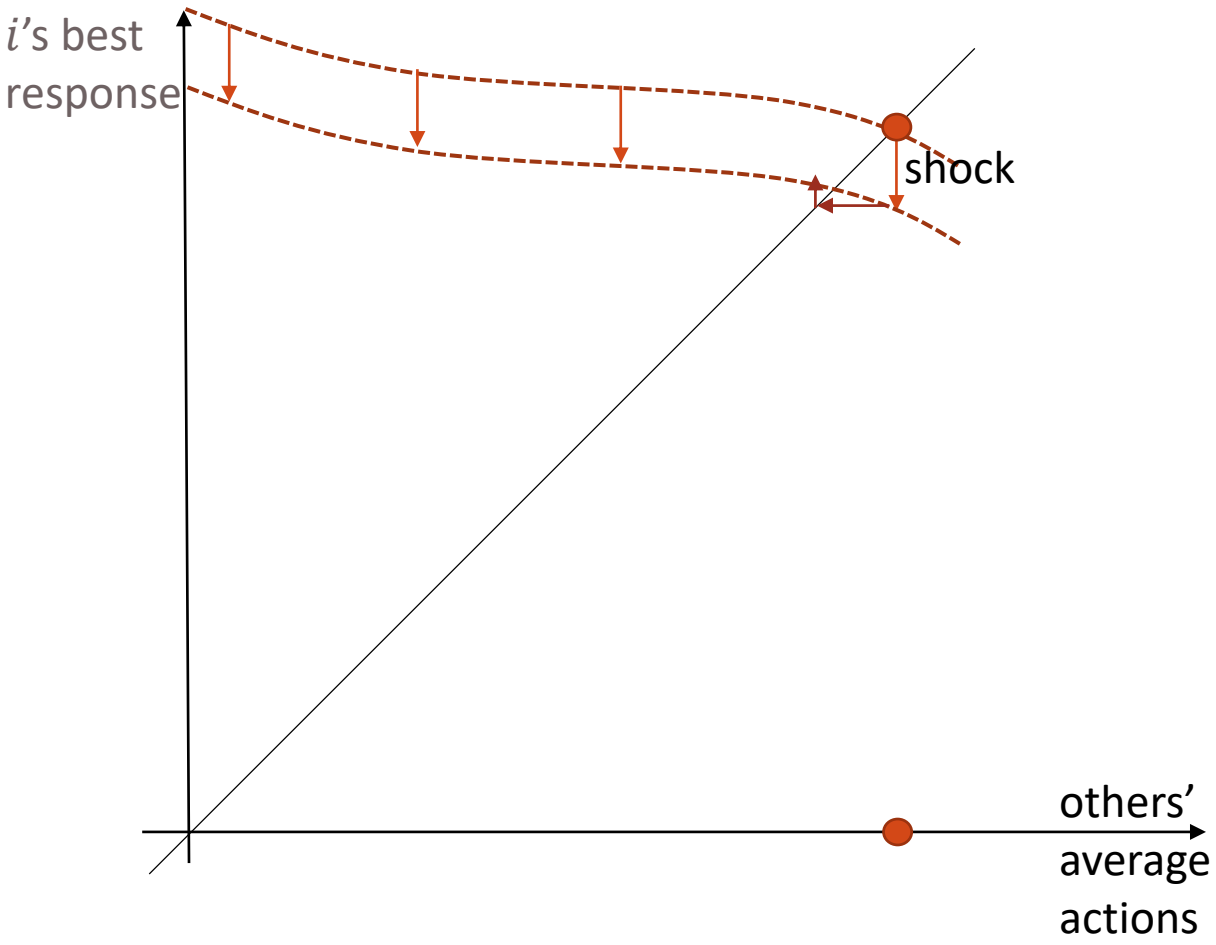
- Low VaR ⇒ low margins ⇒ high margins ⇒ high leverage
  ⇒ low risk-weights ⇒ less capital ⇒ high leverage

- Shock leads to large adjustment
- High VaR ⇒ …

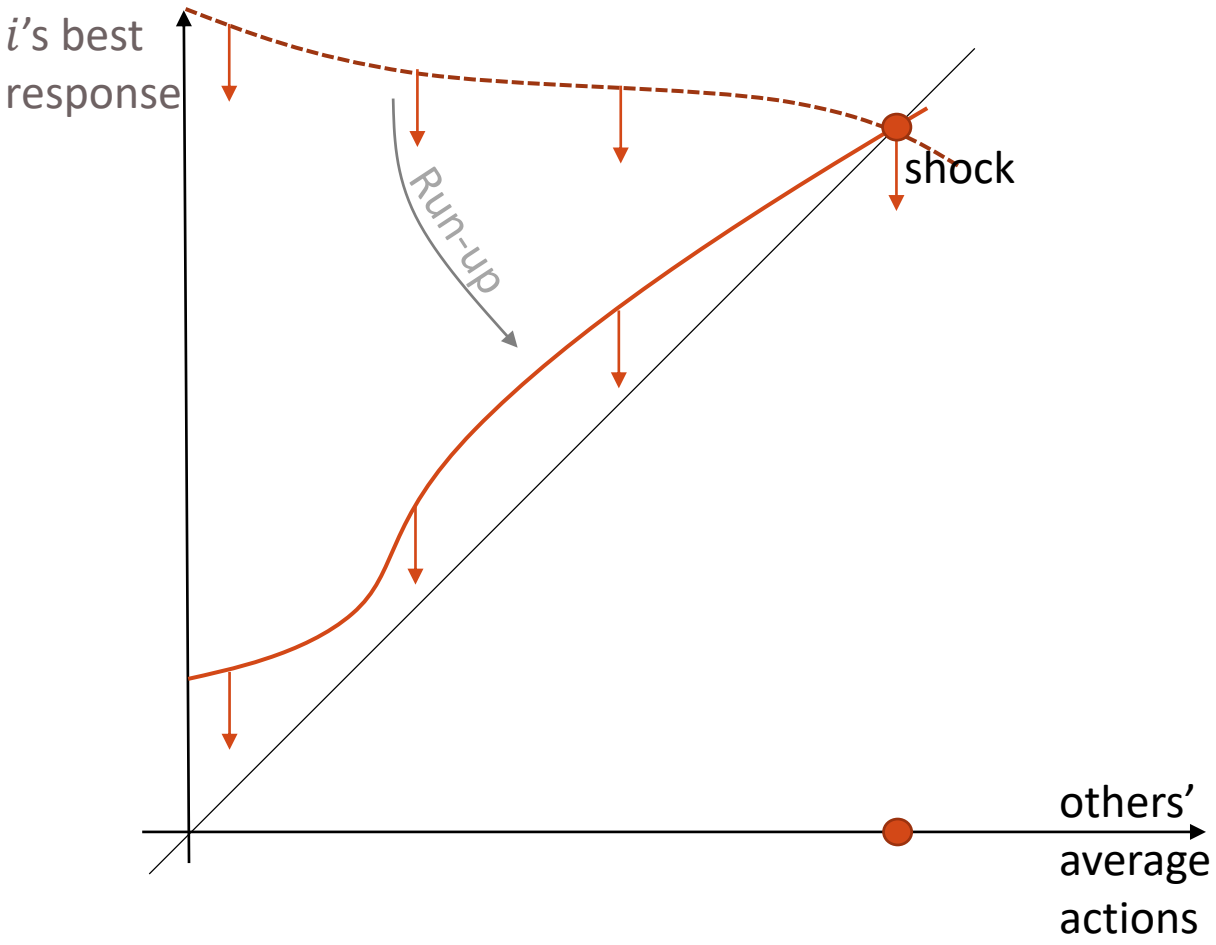
- Procyclicality
  - Countercyclical puffer… See paper

- More subtle: better idiosyncratic risk sharing higher endogenous risk

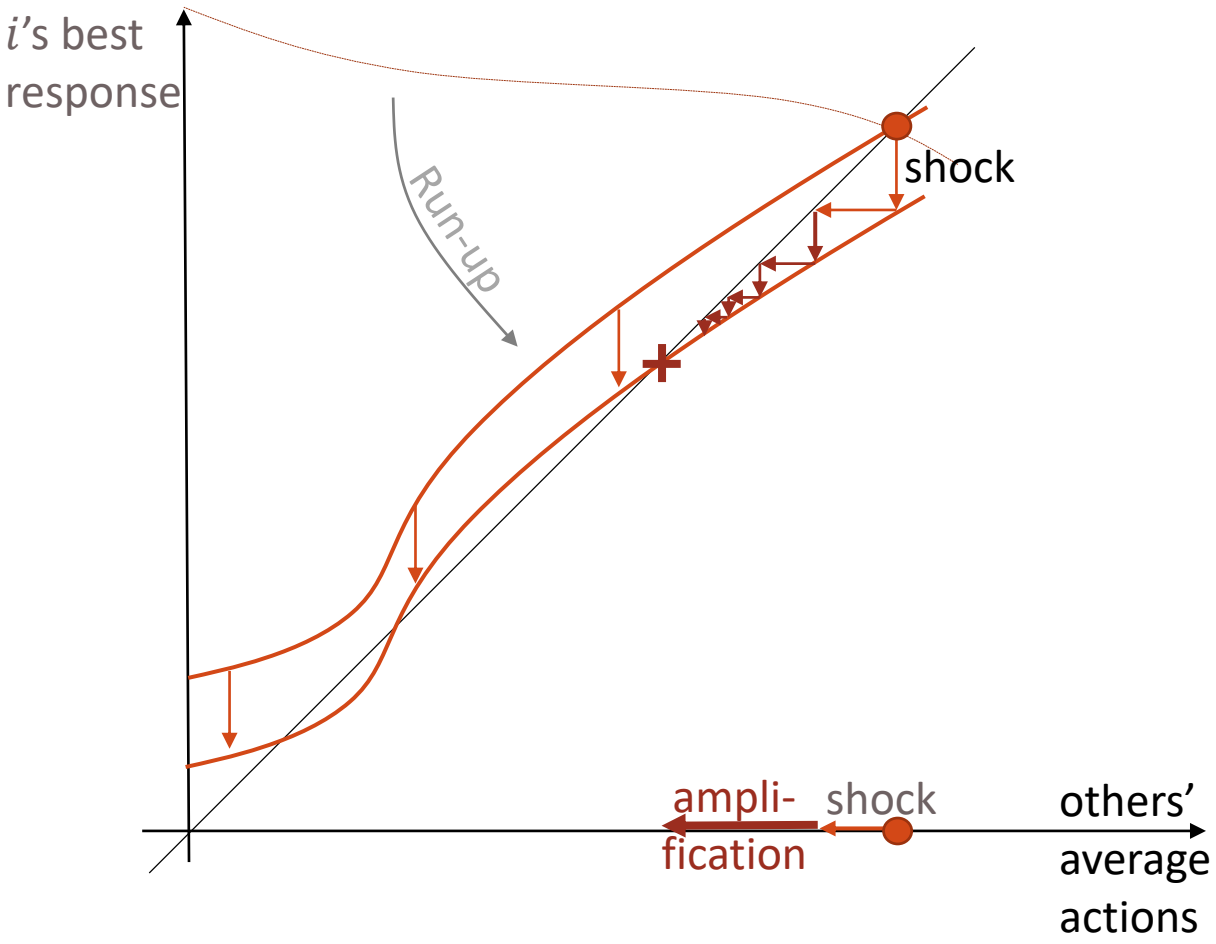
Before Build-up



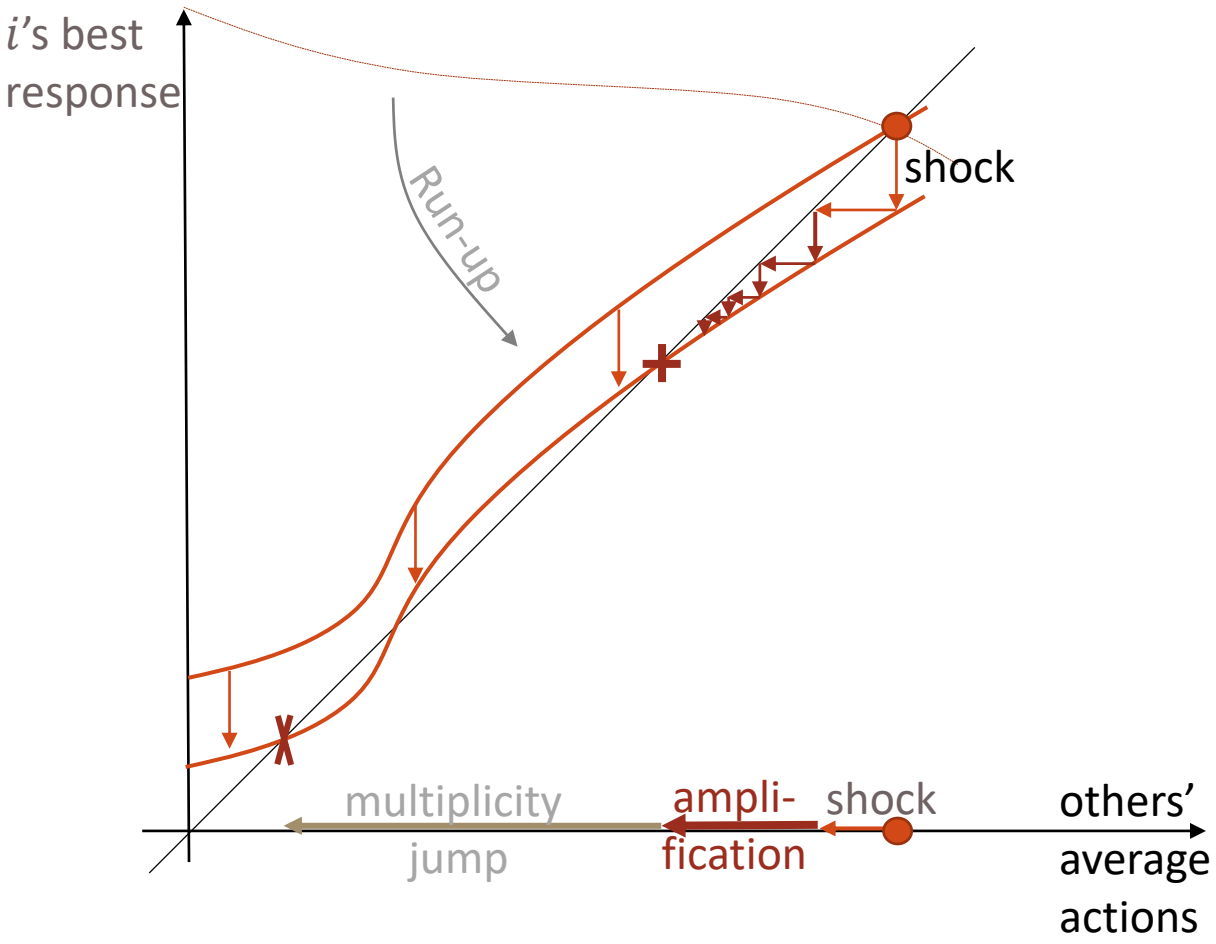
After Build-up



Shock after Build-up: Amplification



Shock after Build-up: Multiplicity



Non-linearity

4. *From* Separation *to* Links: MacroPru & MoPo

- In EME many MacroPru measures are MoPo measures

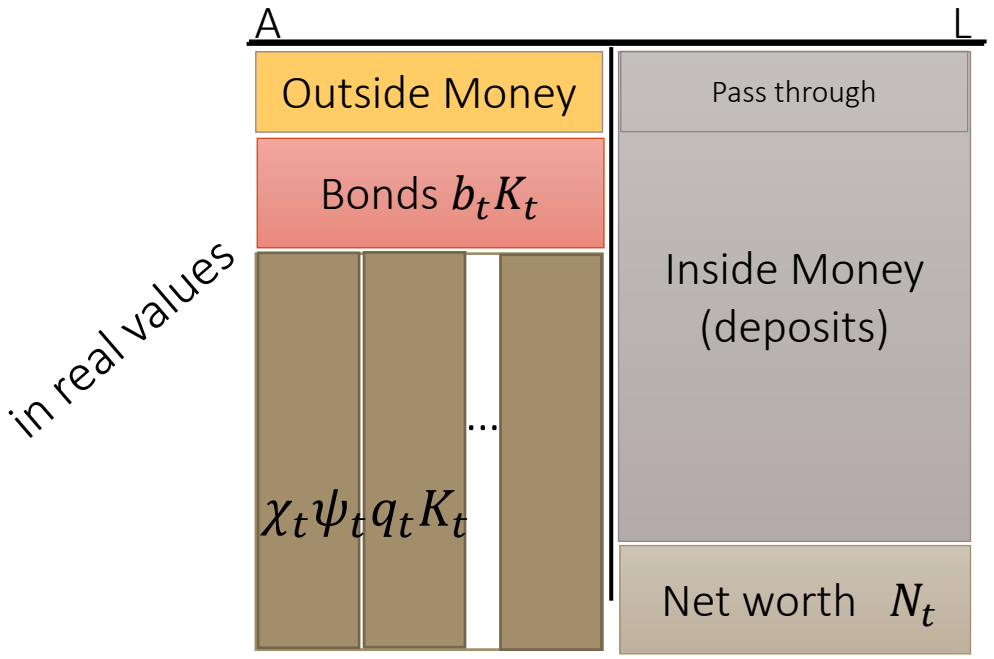
- Inside money creation by regulated banks
  - Outside money and inside money are not perfect substitutes
  - In down turns, simply replacing "missing" inside money with outside money is not sufficient.
    "monetarists' view is not sufficient"
    - Inside money allows banks to diversify idiosyncratic risk
    - Outside money doesn't

affects money demand

- Central bank balance sheet
  - Reserve holding due to liquidity regulation (LCR)

Monetarists' supply view is not sufficient

Redistributive MoPo: "I Theory of Money"



Change relative asset prices

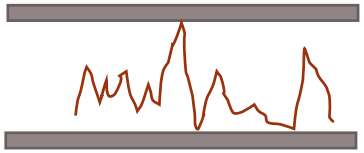
- Adverse shock → Liquidity & Deflationary Spirals
- Monetary policy
  - Interest rate cut ⇒ long-term bond price ↑
  - Asset purchase ⇒ asset price ↑
  - ⇒ "stealth recapitalization" - redistributive
  - ⇒ risk premia ↓
- Liquidity & Deflationary Spirals are mitigated

MoPo with risk premium focus

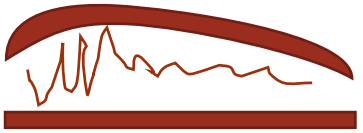
5. Volatility vs. Resilience

- Difference

- Low risk/ volatility — concrete wall



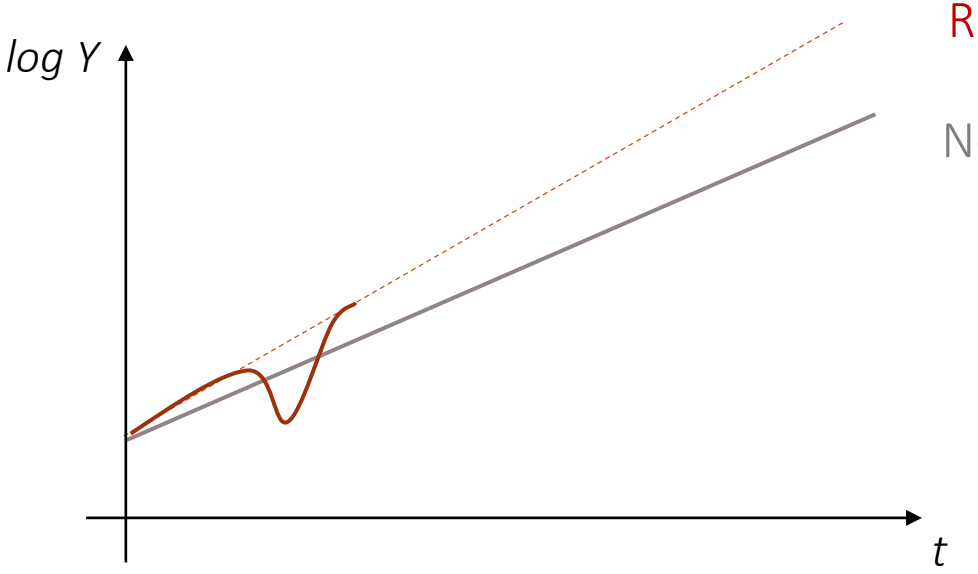
- Resilience mean-reversion — rubber wall



“Steh-auf Männchen“
„little get-up man“

Resilience & Growth-stability Trade-off

- Growth vs. risk/uncertainty with resilience



Risk with resilience

No risk, but lower growth

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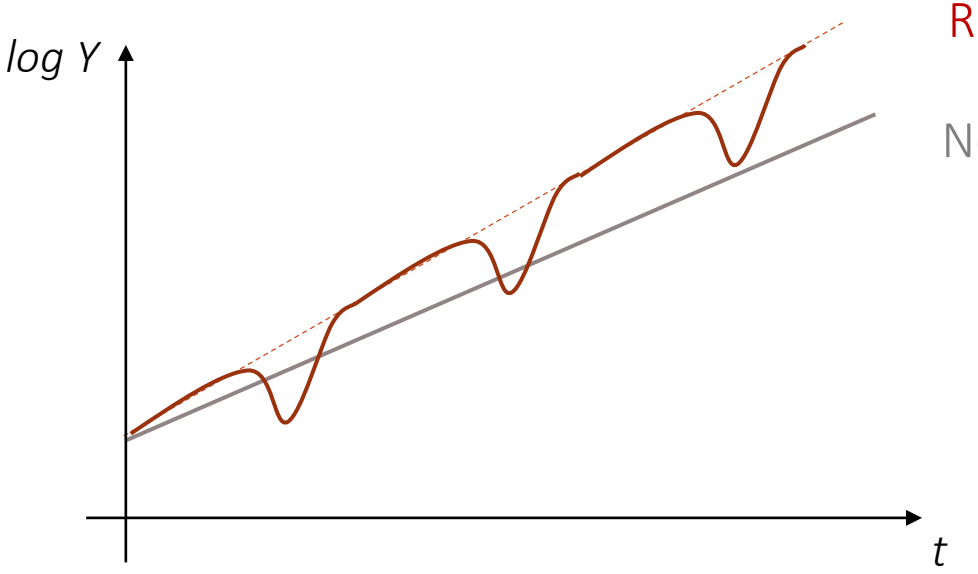

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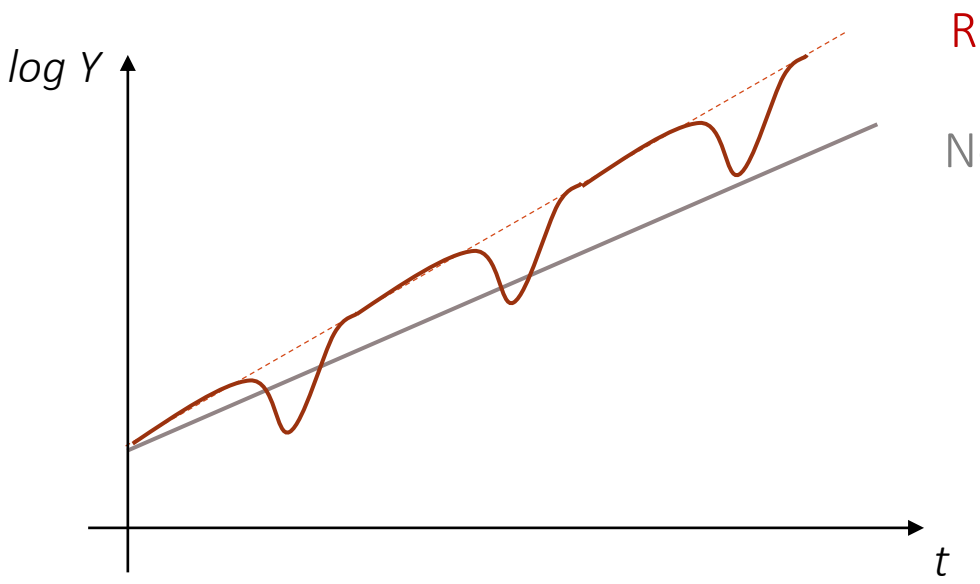
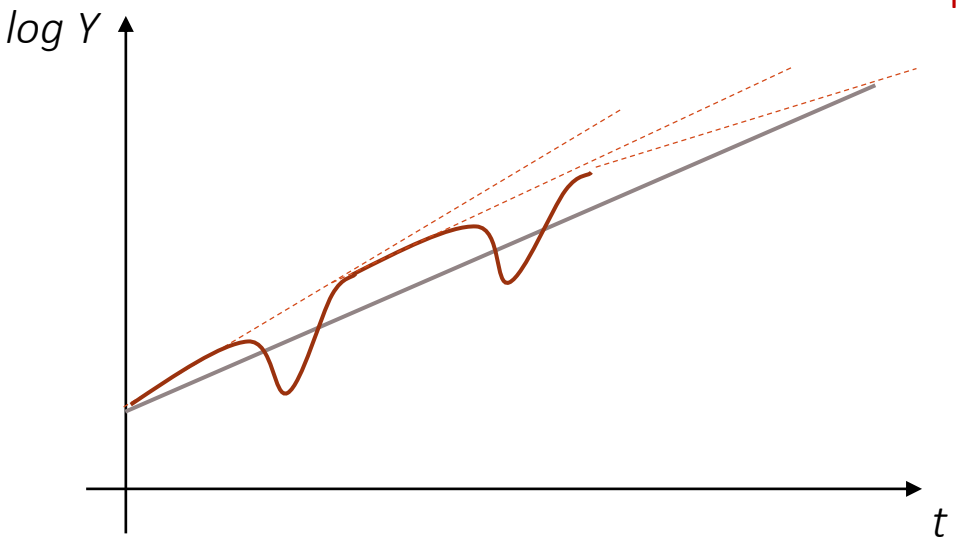


- In the long-run average growth matters, risk (with resilience) is only of second order importance
  - Lucas: Macroeconomics should focus on growth theory rather than business cycles

Resilience & Growth-stability Trade-off

- Growth vs. risk/uncertainty without resilience



Risk without resilience

e.g. due to hysteresis

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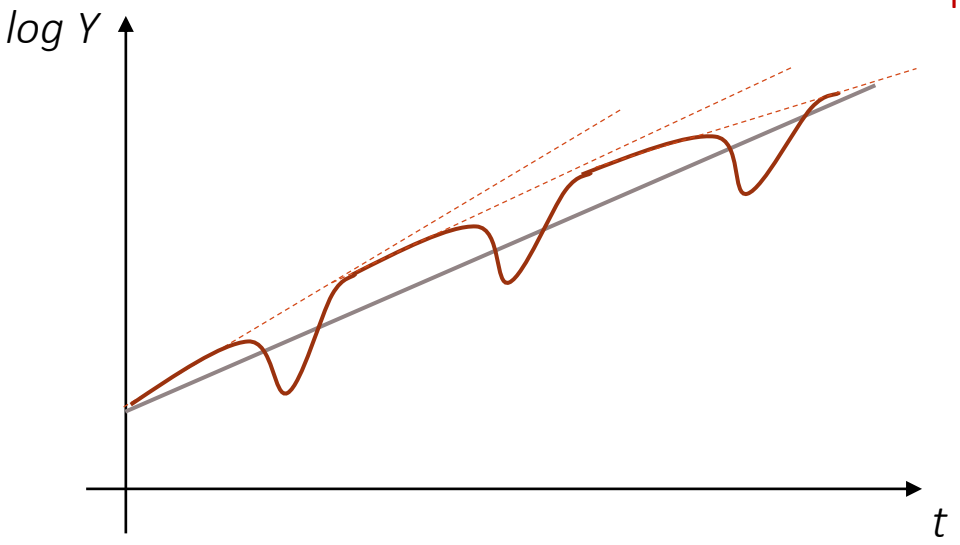

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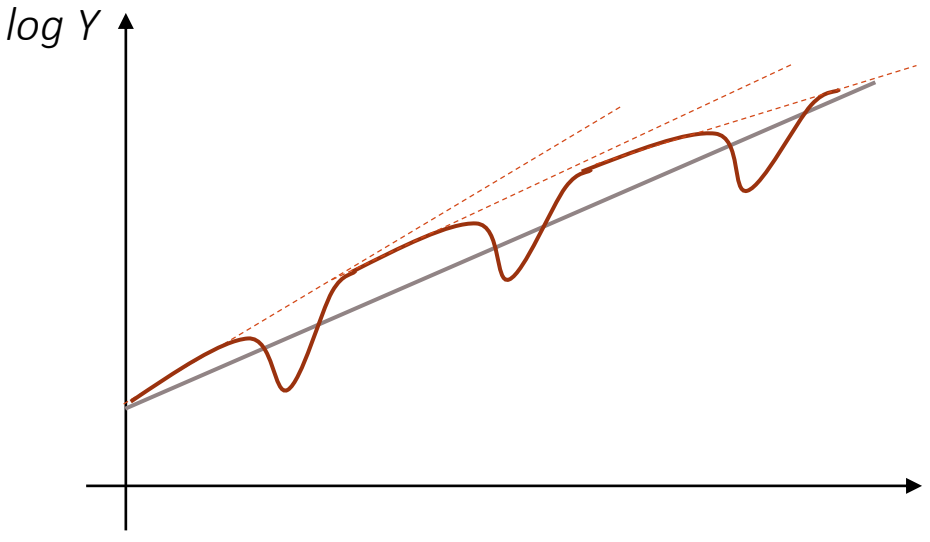

Risk without resilience

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- NOTE: Do Financial Crises destroy resiliency!
  - Permanent decline in growth rates
- Affects Trade-off Theory:
  Reduction in output vs. reduction in crisis probability

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