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

     - 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
  - Data implications:
    - 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
      - 1\textsuperscript{st}, 2\textsuperscript{nd}, 3\textsuperscript{rd} round effects
      - Random recovery rate

- **Indirect**
  - Price effects (fire-sale externalities), *liquidity spirals*
    - Adverse GE response ➔ Response Indicator (LMI)

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“Response indicator”

- Shock absorber
- Shock amplifier

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<th>Direct</th>
<th>Indirect</th>
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<td>Contractual links</td>
<td>“Virtual links”</td>
</tr>
<tr>
<td>Loss through bankruptcy/default</td>
<td>Similar exposure than other levered players</td>
</tr>
<tr>
<td>Position data</td>
<td>Response indicator</td>
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<tr>
<td></td>
<td>- expectations/ constraints</td>
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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 $\Rightarrow$ low margins $\Rightarrow$ high margins $\Rightarrow$ high leverage
  $\Rightarrow$ low risk-weights $\Rightarrow$ less capital $\Rightarrow$ high leverage

- Shock leads to large adjustment
- High VaR $\Rightarrow$ ...

- Procyclicality
  - Countercyclical puffer... See paper

- More subtle: better idiosyncratic risk sharing higher endogenous risk
Before Build-up

i’s best response

shock

others’ average actions
After Build-up

$i$’s best response

Run-up

shock

others’ average actions
Shock after Build-up: Amplification

$i$’s best response

Run-up

amplification

shock

others’ average actions
Shock after Build-up: Multiplicity

- Multipli-city
- Amplification
- Shock
- Others’ average actions

Non-linearity

i’s best response

Run-up

Jump
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

- Central bank balance sheet
  - Reserve holding due to liquidity regulation (LCR)
Redistributive MoPo: “I Theory of Money”

- 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
5. Volatility vs. Resilience

- **Difference**

  - Low risk/volatility
  - Resilience mean-reversion

<table>
<thead>
<tr>
<th>Low risk/volatility</th>
<th>concrete wall</th>
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<tbody>
<tr>
<td>Resilience mean-reversion</td>
<td>rubber wall</td>
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“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

\[
\log Y
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Resilience & Growth-stability Trade-off

- Growth vs. risk/uncertainty *with* resilience

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 **with** resilience

- 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

\[ \log Y \]

Risk without resilience
e.g. due to hysteresis
Resilience & Growth-stability Trade-off

- Growth vs. risk/uncertainty **without** resilience

Risk without resilience

\[ \log Y \]

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e.g. due to hysteresis
Resilience & Growth-stability Trade-off

- Growth vs. risk/uncertainty **without resilience**

- 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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