Funding Agreement-Backed Securities & Financial System Vulnerabilities

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2015 NAIC Fall Annual Meeting
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Shadow banking and runs

### Traditional bank

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit cards</td>
<td>Deposits</td>
</tr>
<tr>
<td>Auto loans</td>
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<tr>
<td>Mortgages</td>
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</tbody>
</table>

### ABCP Conduit

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
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<tbody>
<tr>
<td>Credit cards</td>
<td>Asset-backed CP</td>
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<td>Mortgages</td>
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### Money Market MF

<table>
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<tr>
<th>Assets</th>
<th>Liabilities</th>
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<tbody>
<tr>
<td>Asset-backed CP</td>
<td>Cash</td>
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<td>Cash</td>
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US life insurers’ connection to shadow banking: Why?

- Traditional business model matches long-term, illiquid liabilities with safe assets of similar duration
- Major challenges to this model:
  - Falling Treasury rates
  - Higher capital requirements

Responses to increase returns:
1. Shift risk off-balance sheet to captives
2. Lend securities against cash, reinvested in longer-dated assets
3. Fund assets with Institutional Funding Agreements
US life insurers’ connection to shadow banking: How?

- Funding Agreement-Backed Securities:

<table>
<thead>
<tr>
<th>Life Insurance Company</th>
<th>SPV</th>
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<tbody>
<tr>
<td><strong>Assets</strong></td>
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<tr>
<td>Mortgages</td>
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<tr>
<td>Private label ABS</td>
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<tr>
<td>Corporates</td>
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<tr>
<td><strong>Liabilities</strong></td>
<td></td>
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<tr>
<td>Funding Agreement</td>
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“Annuity” payment → FABS

Notes to investors → cash

- Funding Agreements are insurance obligations
- FABS can be issued under various terms and with put options to meet demand from different type of *institutional investors*
• Yearly issuance reached at least $50 billion in 2006
• Amount outstanding peaked at more than $170 billion
FABS may contribute to financial system vulnerabilities

1. Increase the connection between insurers and financial sector

2. Maturity and liquidity transformation increases vulnerabilities

3. These vulnerabilities are amplified as FABS maturity shortens:
   - Shocks to insurers or institutional investors could trigger a run
   - Initial withdrawals could cause a panic, and more withdrawals
   - The effect of the run depends on the availability of liquidity
   - Illiquidity at an insurer could lead to delays in payments
   - Delays could cause a panic in short-term funding markets
There was a run on Extendible FABS in 2007

- *Extendible FABS* are put-able FABS designed for MMFs
- From 2007Q3, institutional investors refused to extend XFABS
The FHLB system was an important backstop

Figure: FHLB advances to FABS issuers

- FHLBs remained a source of funding for some
What can we learn from the run on FABS?


- Is shadow banking vulnerable to self-fulfilling runs?
  - Potential amplification channel for triggers/shocks
  - Challenging to tease out the panic effect
    - Investor decisions are simultaneous
    - Confounding effects of unobservable fundamentals

- Exploits the contractual structure of Extendible FABS

→ 3/4 of withdrawals was due to the panic effect
“If a hurricane knocks down a house, you can blame it on the strength of the hurricane or on the structural deficiencies in the house. Ultimately both factors matter. A destructive financial crisis is analogous. There are immediate causal factors, or triggers—the hurricane. But the triggers cannot cause extensive damage without structural weakness, the vulnerabilities of the system itself—a house with weak foundation.” – Ben Bernanke, 2015