What If “Unconventional” Monetary Policy Becomes Conventional?

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Review of vocabulary

- **Conventional** monetary policy: Deliberate manipulation of the overnight (riskless) interest rate designed to raise or lower aggregate demand.

- **Unconventional** monetary policy: *Anything else* the central bank does to raise or lower aggregate demand.
Things our intellectual fathers...

a) taught us
b) didn’t tell us
Bagehot and recent history

“Lend freely, at a penalty rate, against good collateral.”

Most CBs did

Well, not much.

Well, it varied.

For the ECB, Super-Bagehot was just about enough until Greece.

But the Fed, BoE, and BoJ felt compelled to do more.

Why? The zero lower bound (ZLB) on nominal interest rates led to a perceived need for unconventional monetary policy.

The ECB has never hit the ZLB.
Friedman and recent history

“Don’t peg the nominal interest rate.”

Why not? \( r = i - \pi \)

Friedman was thinking mainly about upward instability when \( \pi \) is rising and \( r \) is falling.

But the argument is symmetric: When \( i \) is stuck at zero, and \( \pi \) is falling, \( r \) is rising, which the CB will want to stop.

Again, the ZLB leads to unconventional monetary policy.

And, BTW, can also lead to huge fiscal multipliers.
Keynes and recent history

- **The liquidity trap idea**: In a very depressed economy, the central bank might push the short rate all the way down to zero--and still not stimulate the economy enough.
- Then monetary policy becomes *useless*.
- But fiscal policy becomes *powerful*.
  - Remember Friedman on the last slide.
- But what if fiscal policy is paralyzed by large deficits and/or public debt?
Four quick conclusions

1. (obvious) In an environment of low inflation and very low nominal rates, the ZLB will bind more often.

2. (should be obvious) If that environment also has low utilization, we may need large doses of expansionary policy.
   - If fiscal policy is paralyzed, that must be monetary policy.

3. (deduction) Given our starting point today, unconventional monetary policy will be more important than in the past.
   - So the “crazy aunt” may not be stuffed back in the closet so easily.

4. (clear implication) We should do much more research and thinking about unconventional monetary policy options.
Menu of unconventional monetary policies
(✓ means Fed has used it)

1. Commitment via words ✓
2. A higher $\pi^*$ (because $r = i - \pi$)
3. Lower the interest rate on reserves (no ZLB there)
4. Quantitative easing (QE)
   a) buying Treasury bonds (to work on term premia) ✓
   b) buying private-sector assets (to work on risk premia) ✓
5. Pegging one or more bond prices
   ➢ Exactly what our forefathers told us not to do!
6. Supervisory forbearance (if CB is also a supervisor)
The idea behind QE

- Demand curves for financial assets are *not* horizontal, so changing *relative supplies* can change term or risk premia.

\[ R_j = r + \rho_j \]

- Requires imperfect substitutes or “frictions”

- Altering “relative supplies” can mean either:
  
  - Increasing the *size* of the central bank’s balance sheet. (QE1, QE2)
  - Altering the *composition* of the central bank’s balance sheet (QE0, Operation Twist).
### Simplified Fed balance sheet

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES AND NET WORTH</th>
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<tbody>
<tr>
<td>Treasury bills</td>
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<td>Less liquid assets</td>
<td>Bank Reserves</td>
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Specific strategies

To shrink term premiums

• Buy long-term government bonds...
  ➢ and sell T-bills (“Op Twist”)
  ➢ by creating new bank reserves (QE2)

• Relies on imperfect arbitrage across yield curve (“preferred habitat” theory)
  ➢ Research question: How important is this?

• A related option used by Fed: commit to keeping the overnight rate low for a (long) time

• Relies on the expectations theory
  ➢ Research question: How reliable is this theory?
  ➢ Answer: Not at all reliable.
Specific strategies

To shrink *risk premiums*

- Buy some *risky asset*…
  - and sell the *safe asset*
  - by creating new *bank reserves (QE1)*

- Again relies on imperfect substitutability (e.g., preferred habitat), this time across risk classes, not maturity.
**Swapping assets (QE0)**

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Early QE did *not* blow up the Fed’s balance sheet...
...nor increase bank reserves much
Lehman changed everything
Lehman changed everything

Billions of dollars
## Blowing up the balance sheet (QE1)

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CP and MBS purchases: Working on *risk* premiums

\[ R_i = r + \rho_i \]

↑

riskless rate
Did QE0 and QE1 work?

The econometric evidence suggests yes.

- Gagnon, Raskin, Remache and Sack (2010)
- D’Amico and King (2010)
- Hamilton and Wu (2010)
- Krishnamurthy and Vissing-Jorgenson (2010, 2011)
Blowing up the balance sheet (QE2)

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- Bills
- Bonds ↑
- Capital
Did QE2 work?

- It was supposed to work on term premiums.
- But they widened. *(see next slide)*
Did QE2 work?

• It was supposed to work on term premiums.
• But they widened. *(see next slide)*
• But perhaps for other reasons:
  ➢ brighter outlook for the economy (for a while)
  ➢ higher expected inflation
  ➢ worsening outlook for national debt
• *Early econometric evidence: worked, but less than QE1*
Questions for research/thinking

- Which of the six unconventional monetary policies works best, under what circumstances?
  - I’ve favored lowering the interest rate paid on excess reserves. (Fed disagrees.)

- If it’s going to be QE, which kind?
  - I’ve favored buying private assets.
There is a strong *a priori* case for using private assets:

- Treasury market is the broadest, deepest in the world $\rightarrow$ hardest to move.
- *Any* other market is thinner $\rightarrow$ easier to move.
- The substitutability between T-bills and T-bonds *must be* higher than the substitutability between, say, T-bills and MBS.
- The QE1 v. QE2 evidence is consistent with this.
- Private lending rates are more closely tied to spending.
Legal barriers to buying private assets

- FOMC can do OMO in agency debt and MBS.
- Buying other private assets probably requires a Section 13(3) ("unusual and exigent") declaration—plus structuring it as a loan to an SPV.
- From the Federal Reserve Act, Section 14(c): To purchase from member banks and to sell, with or without its indorsement, bills of exchange arising out of commercial transactions…
Some tentative conclusions

- Unconventional monetary policy is here to stay.
- QE will probably be the dominant type. (QE3?)
  - But we shouldn’t forget the other forms.
- QE in private assets works better than QE in Treasuries.
- But the Fed’s legal authority to do that is limited.
- Q: Why not broaden that authority?
- Q: Why not try policies other than QE (such as cutting interest on excess reserves)?
The research imbalance

- There has probably been a thousand times as much research on *conventional* monetary policy as on *unconventional* monetary policy.
- To me, this suggests where the marginal productivity of additional research is higher.
- The methodological problem with event studies.
  - But what’s better?