Central Bank Balance Sheet Policies: The tale of three central banks

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Europe and Japan: Monetary policies in the age of uncertainty
The ZLB and balance sheet policies

- The ZLB and QE: Fed, ECB, BoJ.
- Policy options at the ZLB.
- The macroeconomic cost of inaction.
- Fiscal aspects of balance sheet policy: debt sustainability.
The ZLB: Overnight interest rates
Policy Options at ZLB

- Size of balance sheet—QE (unlimited).
- Composition of balance sheet (limited).
- Negative short rates (limited).
- Communications/forward guidance (not an independent tool).
How does QE work?

- Purchases of assets raise their prices and those of substitutes.
- QE compresses long-term yields.
- QE raises asset prices/weakens fx.
- QE creates fiscal space/accommodates fiscal expansion.
- QE increases nominal aggregate demand.
Uncertain effects

- Greater multiplier uncertainty for QE than for conventional policy.
- Uncertainty may lead to inaction.
- Appropriate response is to embark on QE quickly and recalibrate, doing more if needed.
The cost of inaction

- Delay in implementing QE depresses economy leading to lowflation.
- Lowflation leads to disanchoring of inflation expectations to downside.
- Eventually requires much greater easing action.


BoJ: Reluctance from 2000s, decisive QE since 2013.
Index, August 2008 = 100.
What can QE achieve?

- QE can restore growth and raise inflation towards CB objective.
- QE can improve debt dynamics.
- Effectiveness depends on decisiveness, implementation.
  - Fed: Effective overall.
  - BoJ: Effective with costly delay.
  - ECB: Effective for “strong” states, not effective for “weak” states.
Ten-year government bond yields

![Graph showing ten-year government bond yields for the United States, Germany, Italy, and Japan from 2001 to 2017. The x-axis represents years from 2001 to 2017, and the y-axis represents bond yields in percent. The graph compares the yields for the United States (blue line), Germany (dark line), Italy (green line), and Japan (red line).]
BoJ: QQE with YCC

“The Bank will apply a negative interest rate of minus 0.1 percent to the Policy-Rate Balances in current accounts held by financial institutions at the Bank.”

“The Bank will purchase Japanese government bonds (JGBs) so that 10-year JGB yields will remain more or less at the current level (around zero percent). ... an annual pace of increase in the amount outstanding of its JGB holdings at about 80 trillion yen ...”

“The Bank will continue expanding the monetary base until the year-on-year rate of increase in the observed CPI (all items less fresh food) exceeds the price stability target of 2 percent and stays above the target in a stable manner.”

(Bank of Japan, 21 September 2016)
Japan’s debt: The power of the BoJ balance sheet

Gross government debt as a percent of GDP. IMF WEO, April 2017.
Primary balance as a percent of GDP. IMF WEO, April 2017.
Debt dynamics

\[ \Delta b_t = (r - g)b_{t-1} + d_t \]

- \( b_t \), debt (ratio to GDP).
- \( d_t \), primary deficit (ratio to GDP).
- \( r \), real interest rate.
- \( g \), real GDP growth.

- Sustainability—the snowball effect: \( r - g \)
Nominal GDP growth, IMF WEO, April 2017. Interest rate on government securities, IMF IFS.
Nominal GDP growth, IMF WEO, April 2017. Interest rate on government securities, IMF IFS.
What has QE achieved?

▶ Fed: Decisive QE paid off, health of economy restored.

▶ BoJ: Decade-long delay in adopting decisive QE led to deterioration of debt dynamics and disanchoring of expectations. Decisive QE since 2013 has put Japan on right track.

▶ ECB: Reluctant and flawed implementation led to disanchoring of expectations and deterioration of debt dynamics for many member states. Effective for selected states, ineffective for many states.