Monetary policy at the ZLB in the current crisis

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Monetary policy so far
Policy rates have been brought down
Financial stability so far
Spreads have come down from last fall
Monetary policy so far in Sweden
Repo-rate path lowered to 50 b.p. through 2010
Monetary policy in a binding ZLB (ELB)

Simple New Keynesian model

Output gap

\[ x_t = x_{t+1|t} - \sigma (i_t + \delta_t - \pi_{t+1|t} - \bar{r}_t) \]

\[ = x_{t+T|t} - \sigma \sum_{\tau=0}^{T-1} i_{t+\tau|t} - \sigma \sum_{\tau=0}^{T-1} \delta_{t+\tau|t} + \sigma (p_{t+T|t} - p_t) + \sigma \sum_{\tau=0}^{T-1} \bar{r}_{t+\tau|t} \]

\[ x_t \text{ output gap, } i_t \text{ policy rate, } \delta_t \text{ spread market-policy rate, } \pi_t \equiv p_t - p_{t-1} \text{ inflation, } p_t \text{ price level, } \bar{r}_t \text{ neutral real rate } \]
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Simple New Keynesian model

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\( x_t \) output gap, \( i_t \) policy rate, \( \delta_t \) spread market-policy rate, \( \pi_t \equiv p_t - p_{t-1} \), \( \bar{r}_t \) neutral real rate

- Announce low policy-rate path further into the future,
  \[ \sum_{\tau=0}^{T-1} i_{t+\tau|t} \downarrow \]
- Keep spreads low,
  \[ \sum_{\tau=0}^{T-1} \delta_{t+\tau|t} \downarrow \]
- Keep up inflation expectations up,
  \( p_{t+T,t} \uparrow \)
- Keep neutral rate up,
  \[ \sum_{\tau=0}^{T-1} \bar{r}_{t+\tau|t} \uparrow \text{ (fiscal policy)} \]
Zero policy rate further into the future

- Fed, Sweden, Canada
- Repo-rate path good thing
- Credibility?
Zero policy rate further into the future
Repo rate and market expectations, February 11, 2009
Zero policy rate further into the future
Repo rate and market expectations, April 21, 2009

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Zero policy rate further into the future

- Fed, Sweden, Canada
- Repo-rate path good thing
- Credibility?

- How make credible?
- Buy government bonds?
- Better? Lend at policy rate (fixed) at longer maturity
Keep spreads down

- Credit easing
- Financial-stability policy
Keep up inflation expectations

- Promise high inflation in the future (low policy rate in the future)
- Credible? (Krugman 98)
- Credible positive inflation target good
- But what if we need inflation above target?
- Price-level target (average-inflation target)
- Quantitative easing, expand monetary base/money supply (works only if believed to be permanent, otherwise probably useless)
Small open economy: The exchange rate

- Easy monetary policy is a package: Lower policy rate, higher inflation, higher inflation expectations, lower real rate, higher output gap, weaker currency
- Announce zero policy rate for longer
- Induce lower policy-rate expectations by lending longer at policy rate
- Support easy monetary policy with (threat of) FX intervention to depreciate currency/avoid appreciation (Switzerland)
- Foolproof Way, Mark II
Small open economy: The exchange rate

Foolproof Way, Mark I (Svensson 2000):

1. Price-level target (path) (above current price level)
2. Currency depreciation and peg
3. When price-level target achieved, return to floating exchange rate and price-level/inflation target
Small open economy: The exchange rate

- Weak currency, not competitive devaluation, not beggar-thy-neighbor’
- Just integrated part of normal easy monetary policy through unconventional means
- Maintain activity, maintain import
- Currency depreciation is terms-of-trade improvement for trading partners
- Easy monetary policy in all countries good
- Maintain activity, import, world trade
- Small open economy: Exchange rate important for own economy, little or no effect on rest of world
- Large economy: Exchange rate less important for own economy, large effect on rest of world