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Comments on

"Quantitative Easing and Bank Lending: Evidence from Japan"

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I TOPIC

II SUMMARY

III COMMENTS

Bank of Japan's QEP (2001-2006)

1.change the main operating target for money market operations from the uncollateralized overnight call rate to the outstanding current account balances (CABs) held by financial institutions at the BOJ, and provide ample liquidity to realize a CAB target substantially in excess of the required reserves;

2.make the commitment that the above ample liquidity provision would continue to stay in place until the CPI registered stably at zero percent or an increase year on year;

3.increase the amount of outright purchases of long-term Japanese government bonds (JGBs), up to a ceiling of the outstanding balance of banknotes issued, should the BOJ consider such an increase to be necessary for providing liquidity smoothly.

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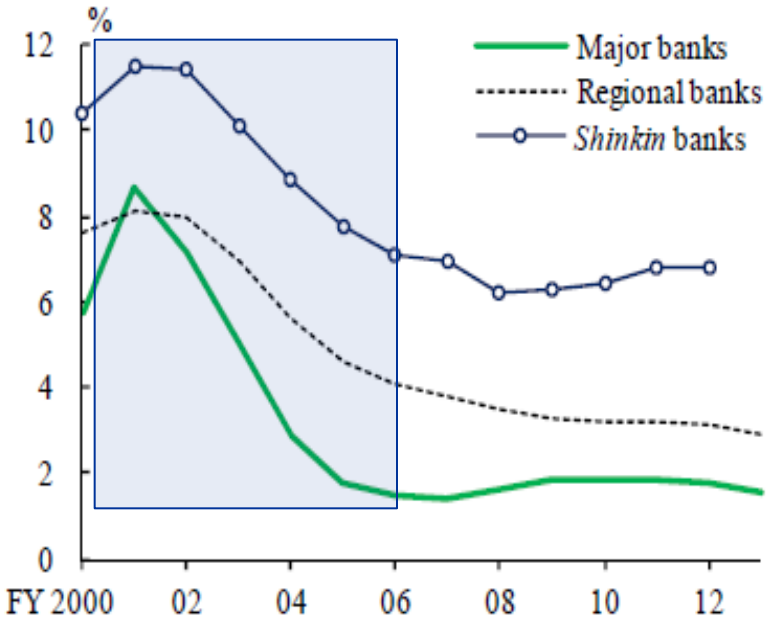
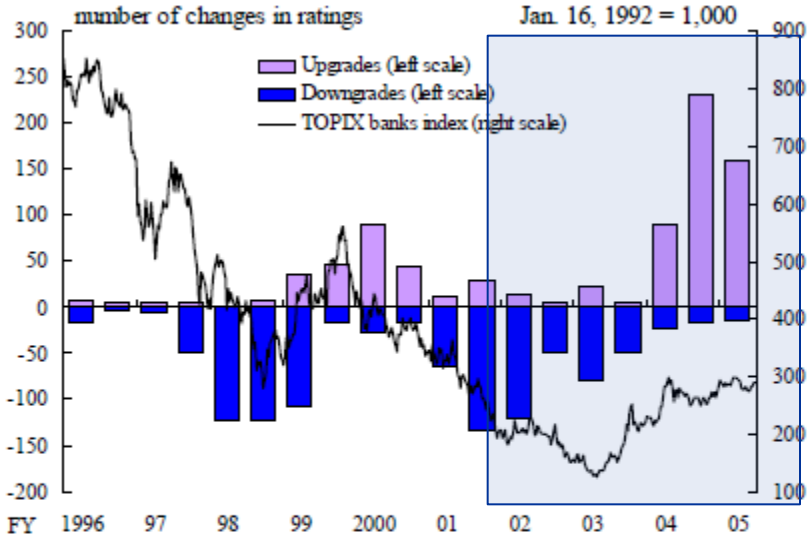
Strong concern over financial system in early 2000s (initial years of QEP period)

Chart V-1-6: NPL ratios[1]



Note: *1*. The latest data for major banks and regional banks are as of end-September 2013, and those for *shinkin* banks are as of end-March 2013.
Source: BOJ.

Chart 17: Credit Rating and Prices of Bank Stocks[1]



Note: *1*. The number of upgrades and downgrades is the sum of the number of changes in ratings made by the following credit-rating agencies: Moody's Investors Service, Standard & Poor's, Fitch Ratings, Rating and Investment Information, and Japan Credit Rating Agency.

Source: BOJ

This paper

- evaluates the effect of the ample liquidity provision of the QEP by estimating reduced-form bank lending functions using bank level data (138 banks , 2000-2009)

$$\Delta Loan_{i,t} = \alpha + \beta LR_{i,t-1} + \delta' X_{i,t-1} + \varepsilon_{i,t}$$

  Liq. asset = cash + deposit at the BOJ and banks+ call loan

  X : bad loan ratio, equity ratio, bank size, lags of loan and deposit growth

- overcomes the identification problem between loan supply and loan demand by using bank level data
- micro data also enables this paper to divide the sample according to the degree of balance-sheet conditions of individual banks and compare the estimated coefficients on the liquidity position
- while estimations were mainly done by OLS, its baseline model was also estimated by system-GMM to make sure that coefficients on the liquidity position is positive and significant after correcting potential endogeneity problem

Main empirical results

- positive and significant liquidity effect for QEP period (2001-2006), not in non-QEP period, suggesting the quantitative easing was likely to promote lending during the QEP period

  "banks were liquidity constrained during the QEP, and the quantitative easing helped to relieve banks from those constraints…QEP happened to be implemented during the period when the banking sector was most stressed, and that is when liquidity mattered the most (P9) "

- the overall size of the boost by QEP on bank lending was, however, reported "quite small" (coefficient on liquidity position is fairy small, BoJ's ample liquidity supply was largely offset by decrease of lending each other)
- liquidity effect was positive and significant during the initial years of QEP when the banking system was at its weakest
- liquidity effects were stronger for financially weaker banks (low equity ratios, high bad loan ratios)

✓ Very interesting paper with an unique approach to examine the effect of ample liquidity provision of QEP

How did deteriorated banks' B/S affect bank lending directly?

- Baseline estimation showed the weak relationship between the loan growth and banks' B/S factors (equity ratios, bad loan ratios)
- Further analysis would be desirable for making sure accurate identification of liquidity effect since disentangling the liquidity effects vs. deteriorated B/S factors is key for this analysis especially for initial years of QEP period

✓ Possible reason for the insignificant coefficients on Banks' B/S factors would be that "QEP period(2001-06)" includes post-banking-problem period (2005-06).

Table 1. Loan growth and liquidity (QEP period)

	OLS	GMM
$LR_{i,t-1}$	0.11***	0.33***
$\log(TA_{i,t-1})$	-0.00*	-0.01
$ER_{i,t-1}$	-0.06	0.13
$BLR_{i,t-1}$	-0.01***	-0.01
$\Delta\log(Deposit_{i,t-1})$	0.15***	0.28**
$\Delta\log(Deposit_{i,t-2})$	0.04*	0.04
$\Delta\log(Loan_{i,t-1})$	-0.02	-0.08
$\Delta\log(Loan_{i,t-2})$	0.02	0.04

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Interpretation of the quantitative impact: Was the overall effect of QEP on bank lending "quite small"?

- Introduction of QEP itself may have made the difference of each bank's liquidity position less important on bank lending during the QEP period.

✓ Coefficient on liquidity position could have been much larger for early 2000s if QEP had not been implemented.

- The commitment to continue providing ample liquidity until CPI stopped declining may have also played some roles on restoring the bank lending channel by mitigating future banks' funding risks

✓ Due to the commitment, banks may have been able to fund money from the market much easier as the risk of the failure to meet future payment obligations was perceived fairy limited (e.g. Baba, Nakashima, Shigemi and Ueda <2006>)

Baba et al (2006) showed that the commitment has significantly contributed to the declines in the risk premium of the NCD* issuance rates by panel estimation.

* NCD (Negotiable Certificate of Deposit issued by individual banks)

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