Comments: “What Do Cash Holdings Tell Us about Bank-Firm Relationship?” by Professor Kazuo Ogawa.

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A Brief Summary

- In Japan, agency problems are believed to be mitigated due to long-term stable bank-firm relationship, known as main bank system.
- As greater agency problems typically lead to more cash holdings, agency cost approach predicts that Japanese firms hold less cash.
- However, irrespective of the theory prediction, earlier empirical studies found that Japanese firms hold more cash than U.S. or German firms.
- Monopolistic main bank might force affiliated firms to reserve more cash/deposit in the main bank's account to extract rent in the form of higher "effective" borrowing rate.
- Ogawa study tries to uncover the reality of the bank-firm relationship in Japan by investigating the firm's cash holding behavior.

A Brief Summary (cont.)

- Using a large panel data set of Japanese firms in the 2000s obtained from the Teikoku Databank Data, the paper estimates demand equation for firm's cash holdings, to infer the true picture of the bank-firm relationships.

- More concretely, the author, first, run the following regression (of demand function for cash holdings) for separate firm groups with varying degree of bank-firm relationship.

$$\left(\frac{\Delta CASH}{TW}\right)_{it} = \alpha_0 + \alpha_1 GSALES_{it} + \alpha_2 \log(RTW)_{i,t-1} + \alpha_3\left(\frac{\Delta NWC}{TW}\right)_{i,t} + \alpha_4\left(\frac{CASHFLOW}{TW}\right)_{i,t}$$
$$+ \alpha_5 SDCFRATIO_{i,t-1} + \alpha_6\left(\frac{DEBT}{TW}\right)_{i,t-1} + \alpha_7\left(\frac{BANKBOR}{DEBT}\right)_{i,t-1} + \alpha_8 MAINDEP_{i,t} \qquad (1)$$
$$+ \alpha_9\left(\frac{CASH}{TW}\right)_{i,t-1} + \nu_i + u_{i,t}$$

- Theory based prediction of the coefficients are as follows.

Table Sensitivity of Cash to Its Determinants under Bank-Firm Relationship

	Transaction motive	Precautionary motive			Agency motive	
	net working capital	cash flow	cash flow volatility	debt	bank dependence	main bank dependence
	α3	α4	α5	α6	α7	α8
Bank-firm relationship						
Strong	-	+	+	-	-- or +	-- or +
Weak	--	++	++	--	-	-

-- in the last two columns holds when strong bank-firm relationship economize cash holdings.

+ holds when monopolistic main banks force its affiliated firms to keep a large amount of cash.

A Brief Summary (cont.)

- And empirical results are summarized as follows.

Table Sensitivity of Cash to Its Determinants under Bank-Firm Relationship

	Transaction motive	Precautionary motive		Agency motive		
	net working capital	cash flow	cash flow volatility	debt	bank dependence	main bank dependence
	α3	α4	α5	α6	α7	α8
Bank-firm relationship						
Table 5 (Base case, 2001-2009)						
bank-dependent	-0.17 ***	0.20 ***	0.04 ***	-0.10 ***	-0.06 ***	
independent	-0.37 ***	0.36 ***	0.11 ***	-0.11 ***	-0.04 ***	
Table 7 (2007-2009)						
bank-dependent	-0.09 ***	0.13 ***	-0.13 **	-0.14 ***	-0.12 ***	-0.02 *
independent	-0.34 ***	0.33 ***	0.26 ***	-0.14 ***	-0.06 ***	-0.01 *
Table 8 (2007-2009)						
one main bank	-0.19 ***	0.21 ***	0.11 **	-0.17 ***	-0.06 ***	-0.02 **
more than one	-0.22 ***	0.39 ***	-0.0006	-0.07	-0.03	0.002
no main bank	-0.14 ***	0.20 *	-0.31 *	-0.10	-0.01	N.A.
Table 9 (2007-2009)						
one main bank & bank dependent	-0.09 ***	0.11 ***	-0.07	-0.17 ***	-0.09 ***	-0.03 **
one main bank & independent	-0.34 ***	0.32 ***	0.33 ***	-0.14 ***	-0.01 ***	-0.01
more than one & bank dependent	-0.134 ***	0.28 ***	-0.46 **	-0.05	-0.20 ***	0.004
more than one & independent	-0.37 ***	0.49 ***	0.41 **	-0.13	-0.03	-0.004
no main bank & bank dependent	-0.09	0.27	-0.42	0.12	-0.06	N.A.
no main bank & independent	-0.41 ***	0.54 ***	-0.22	-0.39 **	0.07	N.A.

Blue letters indicate that estimated coefficients are consistent with the theory predictions.

Pink shaded cells (in the lines of bank-dependent firms) indicate that the pattern of coefficients is consistent with the argument that banks help their client firms manage liquidity.

A Brief Summary (cont.)

- In addition, the paper reports the effects of (main) bank dependence on monopoly rent (Table 10).

$$Monopoly\ Rent \equiv "Effective"\ BorrowingRate - Nominal BorrowingRate$$

$$= \frac{r_{L,main} B_{main} - r_D D_{main}}{B_{main} - D_{main}} - r_{L,main} \qquad (2)$$

- By running regressions of the following form,

$$Monopoly\ Rent_{i,t} = \beta_0 + \beta_1 MAINDEP_{i,t} + e_{i,t} \qquad (3)$$

the author found that

i) the constant term β_0 is positive and significant for all the firm groups except the bank-dependent firm group with more than one main bank.

ii) Main banks' share of loans, i.e., *MAINDEP*, is significantly positive for the bank-dependent firm group with more than one main bank.

A Brief Summary (cont.)

- Based on these findings, the author argues that main banks had helped their affiliated firms manage liquidity in two important ways:

  i) affiliated firms can economize cash holdings for precautionary motive because main banks are ready to provide them with liquidity for rainy days.

  ii) affiliated firms can keep adjustments of cash holdings to external shocks to the minimum, as main banks cushion the shocks to the affiliated firms.

- However, at the same time, affiliated firms had to pay the price, or the monopoly rent, for maintaining the bank-firm relationship in the form of higher "effective" borrowing rate.

- The author notes that existence of monopoly rent and economizing cash holdings are compatible, if a firm holds small amount of time deposit, but the time deposit is exclusively held in its main bank's account.

General Comment

- Interesting paper on an important and promising topic.
- Clearly written in the context of the literatures, as professor Ogawa usually does, and comprehensible even for me who is not necessarily well versed in the resent studies.
- The paper uses a very large close to ideal panel dataset that is currently available for Japanese firms. (It is a pity that the dataset covers the 2000s only.)
- Findings are informative and very interesting, though I think they are still not conclusive evidence (because of the reasons discussed in my specific comments/questions below).
- Therefore, I really would like to see the finalized version of this paper.

Specific Comments/Questions

- Although the empirical findings look loosely consistent with the author's argument, I have not a few questions to be cleared before agreeing with author's conclusion.

- Firstly, on the regression specification (1), why is the dependent variable first differenced, i.e., ΔCASH/TW instead of CASH/TW?

- I understand it for variables ΔNWC/TW (α_3) and CASHFLOW/TW (α_4), by which we want to examine the adjustments of cash holdings to external shocks.

- However, for SDCFRATIO (α_5) DEBT/TW (α_6) BANKBOR/DEBT (α_7), and MAINDEP (α_8), I think CASH/TW is a more reasonable choice, since we are interested in the effects of those variables on the *level* of cash holdings.

(Irrespective of my uncomfortable feeling, the estimated coefficients on α_5 ,…,α_8 look surprisingly consistent with the theory prediction. Do I misunderstand something?)

Specific Comments/Questions (cont.)

- Turning to the interpretation of paper's empirical findings, which look loosely consistent with the author's argument, there are at least a few details that look slightly inconsistent.

- Regarding the cash holdings by firms:

- While bank-dependent firms appear to benefit from economizing cash holdings (Table 5 & 7), benefits of main bank relationship are not necessarily evident (Table 8).

  (Which matters more: bank-dependent system vs. main bank system?)

- Why cash holdings of the firm group with more than one main bank look more like those of the firm group without a main bank (Table 8)?

  (Aren't main banks subjectively defined as the financial institutions with which firm thinks has close relationship? More than one main banks do not mitigate the agency problems, irrespective of the subjective belief of the client firms?)

Specific Comments/Questions (cont.)

- Regarding the monopoly rent imposed by main banks, do the results reported in Table 10 imply sizable rent?

- First, coefficients α_7 and α_8 in the cash holdings equation suggest that the cash economization effects of strong bank-firm relationship dominates the monopoly rent.

- Second, by definition (eq. (2)), the monopoly rent, or the difference between effective borrowing rate and nominal borrowing rate, is positive. Therefore, the positive and significant constant term may mean nothing.

- Third, coefficients on the main bank's share of loans look random and are not necessarily correlated with the main bank dependence.

- Fourth, although the monopoly rent should be most prominently-manifested for the firm group with sole main bank, we cannot see any discernible difference in Fig.2.

Specific Comments/Questions (cont.)

- If the author really wants to see the monopoly rent of main banks, why didn't he check a more direct measure by simply comparing the main bank's share of deposits with its share of loans?

  (Is the "effective" rate really higher for main banks than for non-main banks?)

- Although the existence of monopoly rent and economizing cash holdings may be compatible, as the author notes, can his argument explain the fact that Japanese firms hold more cash than U.S. or German firms?

  <= Probably not. The case where a firm holds small amount of time deposit, but the time deposit is exclusively held in its main bank's account, cannot be an explanation of higher cash holdings by Japanese firms in general.

- As a further request, it may be also interesting to examine differences in cash holdings behavior between large firms and small firms, or listed firms and unlisted firms, as the issue of our interest is related to the special role of main banks to mitigate the agency problems, or information asymmetry.