Bank risks, risk preferences and lending

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Preliminary, comments welcome

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Abstract

The recent debate on the impact of capital regulation on bank behaviour shows that risk exposures of banks might influence the amount of loans newly granted to the non-financial sector. The paper extends the traditional set of bank-specific variables used in testing for the bank lending channel and points to the role of financial stability analysis in the conduct of monetary policy. This role stems from the fact that the financial instability can influence the monetary transmission mechanism. The implications of the presented reasoning are tested using the data for the Polish banking sector during the period 1997-2004. The variables proxying bank risk preferences and the level of risk undertaken (also when interacted with a monetary policy measure) are significant in regressions explaining changes in the amount of bank loan supply.

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1. Introduction

The financial systems' ability to provide financial intermediation services in an undisturbed and efficient way is one of the major issues in the financial stability analysis. It is considered to constitute a financial system's contribution to growth opportunities of the whole economy. The recent debate on the impact of capital regulation on bank behaviour shows that risk exposures of the banks might influence the amount of loans granted to the non-financial sector (e.g. Froot and Stein, 1998; Furfine, 2001; Cebenoyan and Strahan, 2004; Repullo, 2004). On the other hand, there is still an unresolved problem of the nature of the relationship between the financial and monetary stability. Especially, it refers to the extent to which monetary policy makers should take financial stability issues into consideration.

This paper combines these both aspects. Monetary policy decisions influence the structure of banks' risk profiles and risk pricing by financial markets. In reaction to the central bank behaviour, commercial banks adjust their balance sheets. These adjustments influence the loan supply as bank risk appetite changes. However, if the stability of the banking sector had been already impaired, the increased riskiness of bank assets might become an obstacle for smooth functioning of the financial intermediation process and result in a large decrease in bank loan supply. To avoid a larger than expected output reaction, it might be beneficial for monetary authorities to monitor the behaviour and financial standing of financial intermediaries.

The problem in hand is closely related to the analysis of the monetary transmission mechanism and might be defined as an analysis of the bank lending channel in the financial stability context. After a monetary tightening the market price of risk and loan loss distribution change. The credit spreads for the loans already granted might then be not high enough to cover expected losses and the default probability of a bank increases. If the bank intends to maintain the previous level of the probability of default, either additional capital or a change in the asset structure is needed. As raising new capital is usually more costly during an economic downturn, the latter solution might be the only available one for the bank in the short run. In this respect the bank reaction is affected by the present balance sheet structure (being a result of previous decisions) and reflects, inter alia, a bank's risk taking strategy.

This constitutes an additional way in which monetary policy might influence the supply of bank loans. Unlike the traditional theory of the bank lending channel (e.g. Kashyap and Stein, 1995), the presented argument does not rely on banks being constrained by reserve requirements[1]. It might be, therefore, more suitable for

[1]It is also distinct from the borrowers' balance sheet channel (e.g. Kashyap et al., 1993; Gertler and Gilchrist, 1994), as it does not refer to new lending opportunities.

economies were central banks follow the direct inflation targeting strategy. The reasoning presented in this paper is also distinct from the bank capital channel (Van den Heuvel, 2002), as the capital constraint is rather endogenous[2] (e.g. Barrios and Blanco, 2003; Lindquist, 2004). Banks are assumed to use capital allocation as a part of their internal risk management procedures.

If the monetary policy really influences the loan supply because banks adjust their lending to changes in their asset risk, the econometric specification used to test the bank lending channel should be augmented with variables proxying bank risk preferences and the level of risk present in bank balance sheets. This paper proposes the share of loans to the non-financial sector in total assets and the share of loans granted to households in the loans to the non-financial sector as proxies for bank attitudes to risk. The loan portfolio quality is measured as a relation of classified loans or accumulated loan loss reserves to the size of the appropriate loan sub-portfolio.

Moreover, it might be interesting to reconsider the interpretation of bank capitalisation and liquidity that are commonly used in the empirical literature on the bank lending channel (e.g. Kashyap and Stein, 2000; Kishan and Opiela, 2000; Ehrmann et al., 2001). These variables, beside capturing bank ability to withstand liquidity shocks and proxying access to the external sources of funds, might also reflect bank risk taking behaviour.

The reported results give some (although not strong) support to the conjecture that bank loan supply reaction to the monetary policy shock might depend on banks' risk preferences and the quality of their loan portfolio. This result suggests that information about financial stability can improve the *ex ante* assessment of monetary policy makers' decisions. Particularly, if there are some concerns about financial stability, a monetary contraction might have higher than expected impact on economic activity through influencing the loan supply.

The structure of the remaining part of the paper is as follows. The next section describes in more detail a rationale for looking at bank risk taking in the context of the bank lending channel. The framework of an empirical exercise for the Polish banking sector is presented in the third section. The fourth section presents the results and the last section concludes.

[2]Banks tend to hold capital well above the regulatory minimum. One of the reasons is that default probability implied by the holding capital close to the regulatory requirement would be too high for most banks to be accepted as a counterparty by other participants of financial markets.

2. Risks in bank balance sheets and monetary policy

Bank lending is associated with a risk that a borrower might not be able to repay a loan. The expected probability of borrower's default should be priced in the interest rate charged by a bank (precisely – in the credit spread added to a risk free rate). Therefore, on the loan portfolio level, the spread between the interest rate charged on loans and the yield of a risk free asset should reflect the expected loss from defaulted loans. In such a context the bank capital might be interpreted as covering unexpected losses[3].

A monetary policy shock results in changing (including shifting) the distribution of the loan losses. If the loan contracts are fixed, i.e. cannot be adjusted to the change in the economic conditions, the previously agreed loan interest rates are not high enough to cover the new level of expected loan losses. There are two major effects operating here. First, the level of a risk-free rate is higher, therefore the difference between the loan rate that was fixed in the previous period and the current level of the risk free rate is smaller than it used to be[4]. Second, the increase in the external finance premium (Bernanke and Gertler, 1995) calls for a higher equilibrium lending interest rate. The monetary policy shock not only changes the overall riskiness of the bank lending. It has also some distribution effects because agents in different sectors of the economy might be characterised by different sensitivities to changes in financing conditions (Dedola and Lippi, 2005).

In such a case a part of loan loss distribution that was covered by the credit spread must be now covered by the bank capital. In terms of economic capital, the size of a bank capital cushion is now smaller and overall riskiness of bank operations is higher, as well as bank default probability[5]. If bank managers (or bank shareholders – if they are able to efficiently affect bank managers' actions) have the specific level of risk preference, they will try to establish the previous level of bank riskiness. Another reason for maintaining high enough capital is that financial institutions usually are not willing to deal with other banks that are characterised by too high default probability. A bank with too low capital levels would have no access to the interbank market.

There are two basic possibilities to restore the previous level of riskiness of banking operations. First, to raise additional capital and second, to change the asset structure. The first solution might be impossible to be implemented in the short run due to some legal procedures that need to be fulfilled when issuing new

[3] This is the idea behind the concept of economic capital.

[4] It is a well empirically documented fact that lending interest rates tend to be sticky (e.g. Hannan and Berger, 1991; Mojon, 2000; Winker, 1999; de Bondt, 2002).

[5] Given the distribution of unexpected losses (i.e. losses that are not covered by appropriate risk premia) the level of bank capital that is consistent with a specific bank default probability can be calculated.

equity or possible underpricing of the new issue (see e.g. Myers and Majluf, 1984; van den Heuvel, 2002; Bolton and Freixas, 2004). Changing the asset structure remains usually the relevant way of adjustment, resulting in a flight to quality (e.g. Bernanke et al., 1996). It might be complicated, however, due to illiquidity of loans (not all loans are suitable for securitisation). If possibilities of selling the most risky assets are limited, the practical way of adjustment is to wait until loans are repaid and limit new lending or change the structure of new lending in favour of those customers that are perceived as less risky. DeYoung et al. (2005) proposed a model where the amount of new credit a bank is willing to supply to a given sector of the economy depends on bank's current risk exposures, risks connected with new lending opportunities in other sectors, the degree of dependence between the risks in different sectors and bank's risk tolerance.

For the proper empirical identification in further research, it is important to carefully distinguish between different potential sources of changes in bank lending. In the bank lending channel literature the emphasis is usually placed on identifying loan supply and demand effects (Ehrmann et al., 2001). In the present context an additional dimension is necessary – differentiating between the effects of changes of risks that are already present in the bank balance sheet and the changes in riskiness of new lending.

As it was already discussed, increase in credit risk of the current bank customers may result in bank willingness to adjust bank asset structure and to limit any new activities that might result in additional risk taking. It should be distinguished from the effect of the balance sheet channel. The balance sheet channel works through changes in credit quality of the new lending opportunities. After a monetary policy shock, that is followed by the real contraction, the value of cash flows from business project decreases. It is emphasised especially by the literature on financial accelerator effect (e.g. Bernanke et al., 1999). The mechanism described above is independent of the quality and profitability of new lending opportunities. The issue relevant there is the change in risk in contracts that were started before the monetary policy tightening. Both effects have an impact on new bank lending, though. Therefore, it is important to distinguish between effects of traditional interest rate (money) channel, borrowers' balance sheet channel and the impact of risks already present in the bank balance sheet.

The empirical literature on the bank lending channel still relies heavily on the theory emphasising the role of required reserves (e.g. Kashyap and Stein, 2000; Kishan and Opiela, 2000). In fact, banks are assumed to follow uniform lending policies, so there is no room for differentiation of asset quality or riskiness of borrowers. It is closely connected with an important assumption that allows for the identification of estimated equations: credit demand elasticity to changes in the interest rate is the same over all banks. Bank lending is limited only by bank

access to deposit or capital funding. In this class of models, an increase in bank risk may influence bank lending only if it changes bank access to external sources of funding.

The important role that is assigned to the reserve requirements might not be the optimal modelling choice for the economies were central banks use a short-term interest rate as their instrument (including those central banks that follow the strategy of direct inflation targeting). If a central bank targets a short term interest rate, it cannot be assumed that monetary contraction can force banks to shrink their balance sheet (see e.g. Woodford, 2003; Bindseil, 2004). In such a case it might be even questionable, whether the empirical identification (i.e. implied set of explanatory variables) that relies on the important role of reserve requirements constraining bank activities is appropriate.

There are some recent theoretical papers related to bank lending channel literature that depart from the assumption about the dominant impact of monetary policy on bank loan supply via required reserves (e.g. Blum, 1999; Chami and Cosimano, 2001; Bolton and Freixas, 2004; Kopecky and VanHoose, 2004). Instead, the role of bank capital regulation is stressed. In these models banks react to possibility that they will be capital constrained. A bank usually dynamically optimises its capital structure, taking into account the cost of raising new capital, foregone benefits if there was additional loan demand, but the bank would be unable to lend due to an inadequate capital base and the opportunity cost of holding excess capital. In such a framework capital regulation plays a crucial role.

The insights from this new stream of banking literature have not been systematically incorporated into empirical research so far[6]. It might be argued that the capital constraint was taken into account by considering bank capital ratios in the empirical studies of the bank lending channel. However, bank capital is used there rather as a proxy for possibility to refinance bank activities (issuing CDs or bank bonds) or even to substitute deposit financing with bank capital financing after a monetary policy shock (i.e. in this context a shock to reserves).

The mechanism this paper proposes allows modelling the impact of monetary policy on loan supply without referring to reserve requirements nor capital regulation[7]. What is needed for this mechanism to operate is the assumption that in

[6] The noticable exception is work by DeYoung et al. (2005) who use bank-level data, but do not analyse changes in bank loan supply in the context of the monetary transmission mechanism. The impact of risk factors that are common to the whole banking sector (uncertainty on the financial markets) was considered by Baum et al. (2004) within the framework proposed by Kashyap and Stein (2000). The non-performing loans on the individual bank level were considered as an explanatory variable by Pruteanu (2004), but she interpreted the results in the context of the broad credit channel.

[7] Only the endogenous nature of bank's willingness to maintain some capital level, even in excess to regulatory requirements is stressed.

short run issuing new equity is costly (what is a plausible assumption) and that bank managers/shareholders are not willing to agree for a permanent change in bank riskiness.

The empirical testing of this proposition might follow the common scheme utilised in the bank lending channel literature. The use of bank-level data allows testing whether there are differences between banks in their lending response to a monetary policy shock. If the assumption of equal interest rate elasticity of loan demand across customers of different banks can be maintained, the differences between banks can be interpreted as differences in bank supply reaction. The bank lending channel literature used bank size, capital and liquidity as variables that can discriminate between banks in their supply reaction. The implication of the above presented reasoning is that the set of discriminating variables should be extended and also cover variables that proxy bank behaviour with respect to risk taking.

Bank risk taking might be proxied by bank asset structure. The relation of risk assets (i.e. loans) to total assets can be interpreted as a general measure of bank risk taking. Further information might be obtained by looking at the structure of risky assets. Lending to different types of customers is characterised by dissimilar levels of risk. The probability that a borrower will default on the loan is usually systematically different between households and enterprises. Therefore, the paper uses the share of loans granted to households in total loans granted to the non-financial sector as an additional proxy for bank risk appetite[8].

Actual bank risk taking might be influenced by the present asset quality[9]. The asset quality (especially the loan portfolio quality) can be expected to be correlated with the bank risk taking strategy, although it reflects the realisation of the risks taken by the bank. Therefore, this variable should be used and interpreted with care, as it might be argued that differences in *realized* risks might also reveal heterogeneity in the bank customers' interest rate elasticity of loan demand.

The empirical identification strategy the paper proposes relies on dividing the bank loan portfolio into (possibly not much related) parts - e.g. loans granted to households and loans granted to enterprises. Although changes in loan quality for both portfolios cannot be assumed to be orthogonal, a quite acceptable assumption might be that at the individual bank level the quality of loans granted to enter-

[8] In Poland, loans granted to households tend to be of much better quality (measured by the share of classified loans in the loan portfolio) than loans extended to the rest of the non-financial sector.

[9] The reasons might be e.g. that the deteriorating asset quality eats up bank economic capital (decreasing capacity for risk taking) or might make loan officers more risk averse. The latter argument might be supported by the anecdotal evidence that bank risk management procedures with respect to market risk often impose that risk taking limits are cut for traders that recently incurred losses.

prises is not systematically related to the interest rate elasticity of loan demand of households. If a relationship between, say, quality of loans granted to enterprises and amount of lending to households can be find, the differences among banks in changes household lending can be identified as a supply side phenomenon[10].

3. Empirical tests for the Polish banking sector

The Polish banking sector has several features that makes it an interesting case for research on the bank lending channel. Some of these features clearly suggest that the bank lending channel might be a significant factor shaping the monetary transmission mechanism in the Polish economy, while others work in the opposite direction. The research so far gives some support for the existence of the bank lending channel in Poland. Opiela (1998) finds that state owned banks, due to explicit and implicit deposit guarantees, reacted less to changes in monetary policy than private banks. Łyziak (2000) using aggregated data found reactions of the bank balance sheet items to the monetary policy shocks to be consistent with the presence of the bank lending channel. Wróbel and Pawłowska (2002) using bank-level data also found support for the existence of the bank lending channel that worked mainly through bank size and capitalization.

These results prove that the research on the role of banks in the monetary transmission mechanism in Poland is policy-relevant. Moreover, deep structural changes that the banking sector has experienced over recent years call for revisiting the previous results. An additional dimension of the policy-relevance of the subject is related to Poland's obligation to become a member of the euro-zone. If there are any changes in the monetary transmission, it is interesting to check whether they work towards making the transmission mechanism more homogenous with that of the EMU.

In Poland, the banking sector dominates the financial system. In practice, banks until very recently were the only source of external finance for households and the majority of enterprises. The total capitalisation of the Polish companies listed in the Warsaw Stock Exchange is still less than 30% of GDP (despite the rapid growth of this ratio in 2004 and 2005). The first condition for the existence of the bank lending channel is therefore fulfilled – there are many bank-dependent borrowers.

However, the other features of the banking sector might work towards diminishing the importance of the bank lending channel. The banking sector is well capitalised and structurally over-liquid (the central bank is the net debtor of the commercial banks). Moreover, high share of foreign strategic investors in the bank-

[10]In such a case including in the estimated equation a measure of the quality of household lending might be interpreted as having an additional control for the loan demand heterogeneity. Therefore, the identified supply-side effect might be even more trusted.

ing sector makes easy for many banks to borrow from the parent company if in need of liquidity. The last point is also relevant in the context of internal markets for equity within financial groups (Worms, 2001; Gambacorta, 2005).

As it was emphasised above, it is important to identify estimated equations in such a way that loan demand factors are appropriately controlled for. It is the reason why disaggregating loan portfolio is helpful in the research on the bank lending channel. The more homogenous group of borrowers the more likely that interest rate elasticity of loan demand will be equal across all analysed banks. The baseline set of results disaggregates bank loan portfolios into lending to households (HH) and lending to other entities from the non-financial sector (labelled as "enterprises" – ENT). As a consistency check of the results (and also for comparability with some other studies) the results for total lending to the non-financial sector (NFS).

In order to look at even finer loan portfolio disaggregation, lending in the local currency (PLN) and lending in foreign currencies (FX) are separately considered. The reason for this is that (especially in the case of enterprises) customers willing to borrow in a foreign currency (e.g. exporting firm looking for a natural hedge for their foreign exchange rate risk) might systematically differ from those borrowing in the local currency. The results of the currency disaggregation should be, however, interpreted with care, as additional demand factors (channelling the loan demand towards local or foreign currencies) might influence demand dynamics. In order to (at least partially) circumvent this problem in regressions where lending was split according to currency (either PLN or FX), the change in the real effective exchange rate was added as an additional explanatory variable.

As it was discussed in the previous section, in the empirical work the standard approach to specification in the bank lending channel literature (see e.g. Ehrmann et al., 2001) is extended with variables proxying bank attitudes toward risk and actual level of risk in their balance sheets. The standard variables are:

- ASSETS - bank size (measured by bank assets),
- CAR - capitalization (measured by the capital adequacy ratio) and
- SEC - liquidity (measured as a share of securities, predominantly Treasury bills and bonds, in total assets).

The additional variables measuring bank risk attitudes are:

- LTA - the relation of total loans granted to the non-financial sector to assets,
- HTL - the relation of loans granted to households to total loans granted to the non-financial sector,

- the relation of classified loans (NPL) or accumulated specific loan loss provisions (LLP) to appropriate part of the loan portfolio (i.e. lending to the non-financial sector – NFS, households – HH and enterprises – ENT).

As it was outlined above, the foreign ownership might be also an important factor influencing bank's access to external funding. Therefore, the share of foreign owners in the equity capital was also included as a control variable.

All bank specific variables are expressed as deviations from period's median. This removes a trend present in some variables and allows interpreting the estimated coefficient is direct effects of a monetary policy shock (see e.g. Ehrmann et al., 2001; Gambacorta, 2005)[11]. It makes also possible to avoid (at least partially) disturbances caused by numerous changes in methodology of bank data collection as all the banks were affected simultanously by them.

In order to control for other monetary transmission channels, GDP growth rate and monetary policy measures are included in all equations. Moreover, in all estimated equations seasonal dummy variables are present to control for seasonal changes in loan demand. In all regressions, beside those explaining changes in foreign currency lending, the quarterly changes in CPI price index are included. When the lending only in one currency is considered (i.e. either only local currency lending or only foreign currency lending), the changes in CPI-deflated real effective exchange rate are included.

We are interested in the significance of interactions of bank-specific variables with a monetary policy measure. If such an interaction term is significant and the assumption that interest rate demand elasticity is equal across banks' customers can be maintained, the conclusion is that the given variable systematically influences supply reaction of banks after a monetary policy shock.

The paper uses the quarterly sample for all operating commercial banks in Poland that covers the period of 1997:1 - 2004:2. The source is a data-set collected for supervisory purposes. The total number of valid observations amounts to 2100. The data-set was corrected for mergers and acquisitions. The merged banks are considered to be separate entities up to the date of the merger. After this date only the dominating bank is retained in the sample and its lending dynamics at the date of merger is calculated using combined figures for both entities.

The general specification of the estimated equations is as follows:

[11] Using sector averages instead of median values is not advisable in this case since the result would be influenced mostly by few largest banks

$$\begin{aligned}\Delta \log L_{it} &= \sum_{j=1}^{4} \beta_j \Delta \log L_{it-j} + \gamma X_{it-1} + \sum_{j=0}^{4} \delta_j \Delta MP_{t-j} + \sum_{j=0}^{4} \kappa_j GDP_{t-j} + \\ &\sum_{j=0}^{4} \phi_j CPI_{t-j} + \sum_{j=0}^{4} \Delta REER_{t-j} + \sum_{j=0}^{4} \lambda_j X_{it-1} \Delta MP_{t-j} + \\ &\sum_{j=1}^{3} \psi_j Q_j + \alpha_i + \varepsilon_{it}\end{aligned}$$

where L_{it} denotes total lending to a given sector[12], MP - measure of the monetary policy stance, CPI - consumer price inflation (from the previous quarter), $REER$ - real effective exchange rate, X_{it} - a vector of bank-specific variables, Q_j - quarterly dummy variables, α_i - a bank specific effect for the *i-th* bank and ε_{it} - white noise residuals.

The number of lags has been chosen to ensure that in most cases residuals have desirable properties[13]. The final specification using four lags is supported by the results from related studies. Moreover, it is with line with the typical length of the monetary transmission (4-6 quarters between the shock and the peak response).

Two variables were used to represent changes in the monetary policy stance. The first set of regressions was run using changes in nominal 1-month money market rate (WIBOR1M). As the second measure of monetary policy, changes in monetary condition index (MCI) were used. MCI takes into account real interest rate and changes in foreign exchange rate[14]. The rationale for using the other measure was that monetary policy actions might have been influenced by the situation on the FX market. Moreover, as Poland is a small open economy, the foreign exchange rate channel in the monetary transmission mechanism is relatively fast and efficient in the monetary transmission mechanism in Poland.

To avoid the endogeneity problem, all bank-specific variables are lagged. The current change in lending is allowed to be influenced also by contemporaneous levels of macroeconomic variables because the quarterly data-set is used. It should not result in endogeneity of these variables as the objects analysed are individual banks.

[12]The optimal solution would be using the amount of loans newly granted by a given bank. Unfortunately, such data is not available. However, changes in the size of the loan portfolio capture *net* lending. It is also an interesting variable to look at because it is informative about the bank's attitude to taking *additional* risk (i.e. granting more loans that have been repaid).

[13]In some specifications, especially those related to lending to enterprises, it has been not possible so far to get rid of autocorrelation in residuals, irrespective of the lag structure.

[14]An increase in MCI means a tighter monetary policy.

The equations were estimated using Arellano and Bond (1991) GMM procedure. The macroeconomic variables ($MP, GDP, CPI, REER$) were treated as exogenous variables and instrumentalised by their own values. Bank-level variables (contained in the vector X_{it}) were assumed to be predetermined and instrumented by their lags.

If changes in loan supply after a monetary policy shock depend on the risk undertaken previously by banks, we should find significant values of the elements of $\sum \lambda$ for variables representing bank risk preferences and loan portfolio quality.

The loan quality is introduced into estimated equation in four ways. First, loan portfolio quality might be measured either using classified loans or accumulated loan loss provision. The latter method seems to be more forward looking. However, bank provisioning policies are heavily influenced by supervisory regulation that stress rather backward-looking elements. As the correlation of the two measures in the sample both for enterprises and households is less than 0.6 it seems worthwhile to try both approaches.

The other difference in dealing with loan portfolio quality is either introducing it on the aggregate portfolio level (as the quality of the whole population of loans granted to the non-financial sector) or disaggregating it and introducing into estimated equations separately measures of the quality of loans granted to households and to the other entities from the non-financial sector. The latter approach allows testing whether changes in quality of loans granted to one of the client groups have any impact on lending to the other type of clients (as it is discussed in Section 2).

There exists a risk that the estimation results might be contaminated by weak collinearity between the two variables. Measuring the loan portfolio quality on the aggregated level (the former approach) is free from this drawback. The estimation results stemming from different approaches might be, therefore, interpreted as robustness checks one to another.

Moreover, as in the Polish banking sector loans granted to households tend to be of better quality, also significant estimates of parameters for the variable HTL_{it} interacted with a monetary policy measure might be expected to be significant.

4. Estimation results

Detailed estimation results are reported in the Appendix. Each table consists of estimation results for one type of dependent variable (e.g. in the case of Table 1 it is total lending to households), one of the two monetary policy variables (again, in the case of Table 1 this is WIBOR1M) and four approaches to introducing the loan portfolio quality, as described in the previous section. Results for each of the estimated specifications are presented in two columns. The first column presents estimates of coefficients (or the sum of coefficients in the case of macro-

economics variables) if the variable is not interacted with the monetary policy measure. The other column presents estimated sums of coefficients for interactions of bank-specific variables with the monetary policy measure. For each of the specifications also results of the Sargan test for overidentifying restrictions and m1 and m2 test statistics (testing autocorrelation in of order 1 and 2 in the residuals of the estimated equation, Arellano and Bond, 1991) are reported.

The analysis of the estimation results suggest that they give some (although not strong) support to the conjecture that bank loan supply reaction to the monetary policy shock might depend on banks' risk preferences and quality of their loan portfolio. Surprisingly, estimated coefficients for interaction terms between loan quality and change in the monetary policy stance happen to have different signs for different categories of loans. In the majority of cases with statistically significant estimates, poorer quality of loan portfolio results in relatively smaller lending after a monetary tightening. A noticeable exception is lending to enterprises. This result suggests that maintaining long term relationship with corporate clients might be more important for banks than changes in loan portfolio quality. Such behaviour could be considered as rational if new lending helps the bank customer to improve its financial standing[15]. Relatively poor quality of the loans granted to corporates suggests that banks not necessarily were better off applying such a strategy.

The interesting result is the fact that banks with a larger share of foreign owners tend to lend less after a monetary contraction. It might be interpreted as a result of weaker lending relationships with the clients (e.g. due to setting business strategies and risk taking limits at the parent-company level) or a more conservative approach to lending due to an unfinished process of acquiring the local knowledge. Another explanation might be related to the way many of the foreign investors entered the Polish banking market. They were encouraged to buy some weak banks instead of making a greenfield investment. Those banks during the restructuring process might have tended to do less lending business.

Another interesting result is the quite robust negative effect of larger securities holdings on bank lending after a monetary contraction. This result supports the hypothesis that in the case of the Polish banking sector large securities portfolios might be rather a source of additional risks. It is caused by the fact that banks are dominant players in the Polish financial system. Once the bank accumulated large Treasury bond portfolios (amounting to 20% of the banking sector assets), it became extremely difficult for them to hedge the interest rate risk. Therefore, banks with largest securities portfolios incur significant losses during

[15] Moreover, banks with higher loans to assets ration also tend to lend more to the corporate sector after a monetary contraction. Relatively larger scale of lending might imply more lending relationships. Another argument for the importance of relationship lending for the corporate sector is very persistent autocorrelation in residuals from equation estimated for this part of bank lending.

contractionary phases in the monetary cycle. This might discourage them from lending. The size of the banks also seems to have rather insignificant impact on bank lending after a change in the stance of the monetary policy[16].

5. Conclusions

The results of this paper suggest that the picture of the bank lending channel might be more complex than proposed by the literature so far. The variables connected with bank risk taking that usually were not taken into account in analysing the bank lending channel turn out to have some impact on bank loan supply. What is interesting, these variables constitute an important part of financial stability analysis, especially in its macroprudential context. This result suggests that information about financial stability can improve the *ex ante* assessment of monetary policy makers' decisions. Particularly, if there are some concerns about financial stability, a monetary contraction might have higher than expected impact on economic activity through influencing the loan supply. Therefore, the central banks should be highly concerned about implications of bank risk profiles on strength and effectiveness of the monetary transmission mechanism. This is consistent with at least maintaining macroprudential analysis at the central banks and having close relationships with bank supervisors.

[16] Ehrmann et al. (2001) found a similar effect for other European economies.

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APPENDIX

Table 1.

Households. total lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	0.05129		0.04600		0.05020		0.04628	
	[0.01973]		[0.01981]		[0.02025]		[0.02009]	
	(0.009)		(0.02)		(0.013)		(0.021)	
dMP	-0.02095		-0.01975		-0.01902		-0.01997	
	[0.00702]		[0.00698]		[0.00702]		[0.00702]	
	(0.003)		(0.005)		(0.007)		(0.004)	
GDP	0.01347		0.01393		0.01189		0.01192	
	[0.00442]		[0.00447]		[0.00447]		[0.00446]	
	(0.002)		(0.002)		(0.008)		(0.008)	
CPI	-3.18662		-3.52238		-3.16146		-3.22669	
	[1.37699]		[1.38205]		[1.37897]		[1.38286]	
	(0.021)		(0.011)		(0.022)		(0.02)	
CAR	0.00266	-0.00013	0.00302	-0.00008	0.00278	-0.00023	0.00288	-0.00018
	[0.00049]	[0.00031]	[0.00049]	[0.00031]	[0.0005]	[0.00031]	[0.00049]	[0.00031]
	(0.0)	(0.67)	(0.0)	(0.797)	(0.0)	(0.453)	(0.0)	(0.56)
foreign ownership	-0.00098	-0.00055	-0.00034	-0.00036	-0.00030	-0.00049	0.00059	-0.00026
	[0.00095]	[0.00017]	[0.00096]	[0.00018]	[0.00102]	[0.00017]	[0.00099]	[0.00017]
	(0.3)	(0.001)	(0.72)	(0.041)	(0.769)	(0.003)	(0.549)	(0.124)
assets	-24.78937	-0.01510	-24.31452	-0.01301	-22.82154	-0.00763	-22.73136	0.01322
	[2.97467]	[0.19091]	[2.93277]	[0.19075]	[3.05881]	[0.19286]	[3.05276]	[0.19033]
	(0.0)	(0.937)	(0.0)	(0.946)	(0.0)	(0.968)	(0.0)	(0.945)
Securities	-0.41319	-0.22557	-0.41491	-0.19949	-0.41449	-0.18898	-0.36208	-0.18187
	[0.13284]	[0.08233]	[0.13058]	[0.0812]	[0.13385]	[0.08367]	[0.13359]	[0.08237]
	(0.002)	(0.006)	(0.001)	(0.014)	(0.002)	(0.024)	(0.007)	(0.027)
HTL	-0.88699	0.02441	-1.02663	0.04723	-0.91832	0.03901	-0.96389	0.02743
	[0.15106]	[0.02485]	[0.14594]	[0.02657]	[0.15164]	[0.02534]	[0.15397]	[0.025]
	(0.0)	(0.326)	(0.0)	(0.075)	(0.0)	(0.124)	(0.0)	(0.273)
LTA	-0.57524	-0.09893	-0.58435	-0.10791	-0.51149	-0.09891	-0.56130	-0.08609
	[0.11732]	[0.0422]	[0.10984]	[0.04184]	[0.1225]	[0.04216]	[0.11201]	[0.04188]
	(0.0)	(0.019)	(0.0)	(0.01)	(0.0)	(0.019)	(0.0)	(0.04)
ENT_LLP/NPL	-0.40573	-0.18375	0.00058	-0.00682				
	[0.19936]	[0.0826]	[0.08818]	[0.04471]				
	(0.042)	(0.026)	(0.995)	(0.879)				
HH_LLP/NPL	0.43078	0.05847	-0.08528	-0.06969				
	[0.1886]	[0.09909]	[0.12421]	[0.07856]				
	(0.022)	(0.555)	(0.492)	(0.375)				
NFS_LLP/NPL					0.07254	-0.18087	-0.03493	-0.06456
					[0.19346]	[0.10321]	[0.0985]	[0.05446]
					(0.708)	(0.08)	(0.723)	(0.236)
Sargan test	1087.42		1118.98		1013.47		1019.08	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-3.31		-3.48		-3.48		-3.41	
	(0.0009)		(0.0005)		(0.0005)		(0.0006)	
m2	-0.79		-0.66		-0.72		-0.56	
	(0.4267)		(0.509)		(0.4731)		(0.5736)	

[ ] – standard errors
( ) – p-values

Table 2.

Households. PLN lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.22544		-0.23533		-0.22129		-0.23121	
	[0.0281]		[0.0282]		[0.02789]		[0.02816]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	0.46767		0.53376		0.45289		0.46478	
	[0.12457]		[0.1246]		[0.12331]		[0.12434]	
	(0.0)		(0.0)		(0.0)		(0.0)	
GDP	0.03288		0.02974		0.02705		0.03283	
	[0.02978]		[0.02978]		[0.02941]		[0.02949]	
	(0.27)		(0.318)		(0.358)		(0.266)	
CPI	30.39374		35.09265		30.03880		29.96322	
	[12.17607]		[12.16328]		[12.04197]		[12.09555]	
	(0.013)		(0.004)		(0.013)		(0.013)	
REER	-30.08117		-34.36554		-29.32742		-30.44449	
	[7.82167]		[7.82721]		[7.74244]		[7.80128]	
	(0.0)		(0.0)		(0.0)		(0.0)	
CAR	0.01455	0.00386	0.01156	0.00287	0.01184	0.00331	0.01383	0.00265
	[0.00258]	[0.00143]	[0.00262]	[0.00141]	[0.00255]	[0.00143]	[0.00261]	[0.0014]
	(0.0)	(0.007)	(0.0)	(0.043)	(0.0)	(0.021)	(0.0)	(0.058)
foreign ownership	0.00798	0.00027	0.00685	-0.00027	0.00727	0.00012	0.00773	0.00016
	[0.00273]	[0.00042]	[0.00286]	[0.00045]	[0.00294]	[0.00041]	[0.00292]	[0.00041]
	(0.004)	(0.528)	(0.016)	(0.544)	(0.013)	(0.775)	(0.008)	(0.691)
assets	-27.89879	0.06488	-32.45188	0.14102	-29.92380	0.05799	-26.48196	0.40406
	[6.85351]	[0.47399]	[6.79756]	[0.47919]	[6.99439]	[0.47097]	[7.02286]	[0.47209]
	(0.0)	(0.891)	(0.0)	(0.769)	(0.0)	(0.902)	(0.0)	(0.392)
Securities	-1.69207	-0.57750	-2.11494	-0.68590	-1.68997	-0.58084	-2.11993	-0.70718
	[0.35018]	[0.20943]	[0.34543]	[0.21137]	[0.3558]	[0.2083]	[0.35128]	[0.21022]
	(0.0)	(0.006)	(0.0)	(0.001)	(0.0)	(0.005)	(0.0)	(0.001)
HTL	-0.20517	0.00022	-0.26197	-0.04566	-0.13996	0.00950	-0.19159	0.02090
	[0.46654]	[0.06245]	[0.44388]	[0.06674]	[0.47416]	[0.06264]	[0.47474]	[0.06317]
	(0.66)	(0.997)	(0.555)	(0.494)	(0.768)	(0.879)	(0.687)	(0.741)
LTA	-1.33040	-0.32163	-1.17455	-0.29541	-1.41466	-0.31036	-1.12022	-0.25420
	[0.29829]	[0.10909]	[0.28709]	[0.10926]	[0.30816]	[0.1079]	[0.2956]	[0.10879]
	(0.0)	(0.003)	(0.0)	(0.007)	(0.0)	(0.004)	(0.0)	(0.019)
ENT_LLP/NPL	0.60298	-0.22916	0.03357	0.26880				
	[0.50358]	[0.19982]	[0.23726]	[0.11618]				
	(0.231)	(0.251)	(0.887)	(0.021)				
HH_LLP/NPL	0.28752	0.10155	0.48497	-0.24932				
	[0.46013]	[0.23086]	[0.31178]	[0.18885]				
	(0.532)	(0.66)	(0.12)	(0.187)				
NFS_LLP/NPL					0.39650	-0.29274	0.51112	0.27784
					[0.51307]	[0.24472]	[0.28652]	[0.13937]
					(0.44)	(0.232)	(0.074)	(0.046)
Sargan test	1496.97		1633.46		1493.83		1480.21	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-3.32		-3.67		-3.03		-3.73	
	(0.0009)		(0.0002)		(0.0024)		(0.0002)	
m2	0.06		-0.15		-0.16		0.06	
	(0.9542)		(0.8832)		(0.8765)		(0.9489)	

[ ] – standard errors
( ) – p-values

Table 3.

Households. FX lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-3.60462		-3.57940		-3.55991		-3.56527	
	[0.02914]		[0.0295]		[0.02959]		[0.02944]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	1.70617		1.46343		1.44681		1.37945	
	[0.86872]		[0.86869]		[0.87077]		[0.87485]	
	(0.05)		(0.092)		(0.097)		(0.115)	
GDP	0.07001		0.10916		0.03898		0.06242	
	[0.24516]		[0.24671]		[0.24567]		[0.24602]	
	(0.775)		(0.658)		(0.874)		(0.8)	
REER	-41.96954		-12.92537		-19.23437		-12.66466	
	[48.48657]		[48.98589]		[48.78181]		[48.94476]	
	(0.387)		(0.792)		(0.693)		(0.796)	
CAR	0.01774	0.02224	-0.01554	-0.00174	-0.01195	0.00206	-0.00444	0.01405
	[0.025]	[0.02338]	[0.02501]	[0.02332]	[0.02576]	[0.02391]	[0.02541]	[0.02336]
	(0.478)	(0.341)	(0.534)	(0.941)	(0.643)	(0.931)	(0.861)	(0.548)
foreign ownership	-0.03812	-0.03168	-0.04374	-0.02790	-0.06074	-0.00829	-0.04492	-0.01067
	[0.02926]	[0.01187]	[0.03004]	[0.01214]	[0.03099]	[0.01146]	[0.03106]	[0.01125]
	(0.193)	(0.008)	(0.145)	(0.021)	(0.05)	(0.469)	(0.148)	(0.343)
assets	-32.15890	13.48138	-72.32325	4.75188	-29.43427	2.50761	-36.03291	7.40423
	[66.8502]	[9.92963]	[66.96862]	[9.91369]	[77.263]	[9.91737]	[74.21751]	[9.59457]
	(0.63)	(0.175)	(0.28)	(0.632)	(0.703)	(0.8)	(0.627)	(0.44)
Securities	-7.45957	-8.30214	-5.25497	-2.67803	1.31599	-0.26392	-7.26476	-4.72500
	[7.5494]	[5.24002]	[7.63811]	[5.00145]	[8.03715]	[5.53892]	[8.0197]	[5.07477]
	(0.323)	(0.113)	(0.491)	(0.592)	(0.87)	(0.962)	(0.365)	(0.352)
HTL	1.70160	-5.45636	20.09871	-4.34010	13.72588	-0.63512	16.91955	-1.76865
	[7.94736]	[1.85817]	[8.08475]	[1.89906]	[8.50276]	[1.7273]	[8.77637]	[1.70471]
	(0.83)	(0.003)	(0.013)	(0.022)	(0.106)	(0.713)	(0.054)	(0.299)
LTA	-1.22407	-2.53661	-5.38972	-4.10272	-4.29115	-5.11827	-5.13478	-4.77586
	[5.92416]	[3.06932]	[5.59512]	[3.06566]	[6.18691]	[3.07376]	[6.01495]	[3.09862]
	(0.836)	(0.409)	(0.335)	(0.181)	(0.488)	(0.096)	(0.393)	(0.123)
ENT_LLP/NPL	58.09518	23.41082	18.83155	7.06084				
	[12.2973]	[5.29543]	[4.66989]	[2.68451]				
	(0.0)	(0.0)	(0.0)	(0.009)				
HH_LLP/NPL	-32.36777	-30.06770	0.09120	-16.87490				
	[10.77399]	[6.62422]	[8.49302]	[5.28848]				
	(0.003)	(0.0)	(0.991)	(0.001)				
NFS_LLP/NPL					23.26637	-8.43448	9.95309	-0.23862
					[17.58002]	[6.94005]	[6.33914]	[3.39396]
					(0.186)	(0.224)	(0.116)	(0.944)
Sargan test	1197.48		1227.12		1265.38		1273.64	
	(1.0)		1		1		1	
m1	-2.04		-1.35		-0.67		-0.71	
	(0.0417)		(0.178)		(0.4999)		(0.4783)	
m2	0.01		-0.3		-0.64		-0.54	
	(0.9945)		(0.7616)		(0.5198)		(0.5924)	

[ ] – standard errors
( ) – p-values

Table 4.

Households. total lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	0.05907		0.03734		0.05664		0.04513	
	[0.0264]		[0.02643]		[0.02677]		[0.02659]	
	(0.025)		(0.158)		(0.034)		(0.09)	
dMP	-0.01098		-0.00906		-0.01013		-0.00778	
	[0.00297]		[0.00297]		[0.00296]		[0.003]	
	(0.0)		(0.002)		(0.001)		(0.009)	
GDP	-0.01100		-0.00946		-0.01103		-0.00899	
	[0.00508]		[0.00511]		[0.00512]		[0.00513]	
	(0.03)		(0.064)		(0.031)		(0.079)	
CPI	2.25124		1.98850		2.04425		2.04239	
	[1.04226]		[1.04322]		[1.05439]		[1.04669]	
	(0.031)		(0.057)		(0.053)		(0.051)	
CAR	0.00110	-0.00023	0.00133	-0.00036	0.00092	-0.00035	0.00119	-0.00038
	[0.00053]	[0.00014]	[0.00052]	[0.00014]	[0.00053]	[0.00014]	[0.00052]	[0.00014]
	(0.036)	(0.103)	(0.011)	(0.011)	(0.084)	(0.013)	(0.023)	(0.007)
foreign ownership	0.00038	-0.00025	0.00041	-0.00024	0.00026	-0.00026	0.00095	-0.00023
	[0.00088]	[0.00006]	[0.00089]	[0.00007]	[0.00094]	[0.00006]	[0.00091]	[0.00006]
	(0.667)	(0.0)	(0.642)	(0.0)	(0.783)	(0.0)	(0.298)	(0.0)
assets	-19.24251	-0.21041	-18.76599	-0.21709	-18.64598	-0.21950	-18.83574	-0.22390
	[1.8442]	[0.05795]	[1.82441]	[0.05911]	[1.86509]	[0.05823]	[1.84635]	[0.05841]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Securities	-0.45479	0.05382	-0.46568	0.03998	-0.47821	0.05198	-0.42027	0.04201
	[0.10639]	[0.02885]	[0.1075]	[0.02897]	[0.10897]	[0.02943]	[0.10956]	[0.02896]
	(0.0)	(0.062)	(0.0)	(0.168)	(0.0)	(0.077)	(0.0)	(0.147)
HTL	-1.00508	-0.01578	-1.10024	-0.01180	-1.02686	-0.00939	-1.07770	-0.01876
	[0.15321]	[0.00847]	[0.15109]	[0.009]	[0.15331]	[0.00836]	[0.15585]	[0.00815]
	(0.0)	(0.062)	(0.0)	(0.19)	(0.0)	(0.261)	(0.0)	(0.021)
LTA	-0.50131	0.01199	-0.59294	0.00105	-0.48005	0.00605	-0.52711	0.00415
	[0.1034]	[0.01455]	[0.09877]	[0.01479]	[0.10556]	[0.01482]	[0.09961]	[0.01487]
	(0.0)	(0.41)	(0.0)	(0.944)	(0.0)	(0.683)	(0.0)	(0.78)
ENT_LLP/NPL	-0.11593	-0.05908	0.14723	-0.01453				
	[0.16076]	[0.02535]	[0.07464]	[0.01594]				
	(0.471)	(0.02)	(0.049)	(0.362)				
HH_LLP/NPL	0.42673	0.02117	0.01762	-0.01909				
	[0.14941]	[0.03182]	[0.09931]	[0.02713]				
	(0.004)	(0.506)	(0.859)	(0.482)				
NFS_LLP/NPL					0.35063	-0.07618	0.09857	-0.03556
					[0.12654]	[0.03402]	[0.08038]	[0.01906]
					(0.006)	(0.025)	(0.22)	(0.062)
Sargan test	1197.7		1240.58		1130.1		1158.71	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-3.22		-3.19		-3.64		-3.04	
	(0.0013)		(0.0014)		(0.0003)		(0.0024)	
m2	-1.46		-1.34		-0.93		-1.22	
	(0.1448)		(0.1791)		(0.3545)		(0.221)	

[ ] – standard errors
( ) – p-values

Table 5.

Households. PLN lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.66876		-0.71231		-0.65711		-0.67012	
	[0.04282]		[0.04244]		[0.04196]		[0.04257]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	0.17500		0.12330		0.15099		0.20709	
	[0.17825]		[0.1793]		[0.1752]		[0.17653]	
	(0.326)		(0.492)		(0.389)		(0.241)	
GDP	-0.08946		-0.09243		-0.08777		-0.08157	
	[0.02131]		[0.02138]		[0.02106]		[0.02112]	
	(0.0)		(0.0)		(0.0)		(0.0)	
CPI	31.67790		30.84488		30.07111		29.98651	
	[5.48321]		[5.53433]		[5.43175]		[5.47422]	
	(0.0)		(0.0)		(0.0)		(0.0)	
REER	-28.03536		-20.33997		-23.88778		-31.87800	
	[25.9893]		[26.12538]		[25.54676]		[25.73096]	
	(0.281)		(0.436)		(0.35)		(0.215)	
CAR	0.01084	0.00504	0.00980	0.00475	0.00724	0.00458	0.01029	0.00531
	[0.00244]	[0.00055]	[0.00253]	[0.00057]	[0.00235]	[0.00055]	[0.00251]	[0.00057]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.002)	(0.0)	(0.0)	(0.0)
foreign ownership	0.01751	-0.00044	0.01635	-0.00040	0.01678	-0.00033	0.01528	-0.00031
	[0.00277]	[0.00016]	[0.00282]	[0.00017]	[0.00292]	[0.00015]	[0.0029]	[0.00015]
	(0.0)	(0.005)	(0.0)	(0.016)	(0.0)	(0.029)	(0.0)	(0.041)
assets	-22.16790	0.12302	-21.44535	0.18197	-19.99190	0.14973	-18.97676	0.26220
	[4.13202]	[0.14565]	[4.16911]	[0.1488]	[4.17866]	[0.14216]	[4.19798]	[0.14508]
	(0.0)	(0.398)	(0.0)	(0.221)	(0.0)	(0.292)	(0.0)	(0.071)
Securities	-1.15382	-0.36177	-1.55022	-0.34401	-1.06250	-0.32501	-1.49662	-0.29462
	[0.2913]	[0.07427]	[0.29337]	[0.07613]	[0.29553]	[0.07374]	[0.29628]	[0.07521]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
HTL	-1.27186	-0.09118	-1.50773	-0.10093	-1.26237	-0.09076	-1.24524	-0.08042
	[0.4321]	[0.02121]	[0.40874]	[0.02208]	[0.43501]	[0.02008]	[0.42784]	[0.02013]
	(0.003)	(0.0)	(0.0)	(0.0)	(0.004)	(0.0)	(0.004)	(0.0)
LTA	-0.08954	0.04057	0.08709	0.04095	-0.16206	0.03610	0.25796	0.06607
	[0.25079]	[0.0359]	[0.24752]	[0.03679]	[0.25784]	[0.03569]	[0.25467]	[0.03726]
	(0.721)	(0.258)	(0.725)	(0.266)	(0.53)	(0.312)	(0.311)	(0.076)
ENT_LLP/NPL	0.35253	0.03941	0.57137	0.02816				
	[0.36967]	[0.06585]	[0.19983]	[0.03747]				
	(0.34)	(0.55)	(0.004)	(0.452)				
HH_LLP/NPL	0.78967	-0.12744	0.52568	0.03730				
	[0.33566]	[0.07629]	[0.24421]	[0.06469]				
	(0.019)	(0.095)	(0.031)	(0.564)				
NFS_LLP/NPL					0.85489	-0.11806	1.07655	0.06157
					[0.29651]	[0.08459]	[0.21616]	[0.04648]
					(0.004)	(0.163)	(0.0)	(0.185)
Sargan test	1519.31		1596.96		1550.59		1504.67	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-4.75		-5.52		-4.47		-4.84	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-0.47		0.15		-0.52		0.01	
	(0.6393)		(0.8837)		(0.6007)		(0.9889)	

[ ] – standard errors
( ) – p-values

Table 6.

Households. FX lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-3.60697		-3.63429		-3.62078		-3.60750	
	[0.02898]		[0.02812]		[0.02832]		[0.0285]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	-0.30584		-0.14340		-0.31819		-0.02661	
	[1.01765]		[0.98396]		[0.99342]		[0.98819]	
	(0.764)		(0.884)		(0.749)		(0.979)	
GDP	-0.02348		-0.11261		-0.15324		-0.06530	
	[0.20592]		[0.20495]		[0.20505]		[0.207]	
	(0.909)		(0.583)		(0.455)		(0.752)	
REER	142.54160		125.44650		137.53680		98.91530	
	[132.2839]		[127.4986]		[128.8171]		[127.5601]	
	(0.281)		(0.325)		(0.286)		(0.438)	
CAR	-0.02458	-0.00294	-0.02143	-0.00023	-0.00863	0.00496	-0.01528	0.00621
	[0.02368]	[0.00626]	[0.02303]	[0.00624]	[0.02317]	[0.00629]	[0.02305]	[0.00627]
	(0.299)	(0.639)	(0.352)	(0.97)	(0.71)	(0.431)	(0.507)	(0.322)
foreign ownership	-0.02058	-0.00207	-0.02875	-0.00577	-0.07700	-0.00539	-0.03582	-0.00192
	[0.03297]	[0.004]	[0.0253]	[0.00409]	[0.02909]	[0.00383]	[0.02732]	[0.00365]
	(0.533)	(0.606)	(0.256)	(0.158)	(0.008)	(0.159)	(0.19)	(0.599)
assets	-143.06950	1.49752	-57.81388	2.29675	-93.52558	2.92654	-64.90791	3.37321
	[66.82398]	[2.96643]	[50.9746]	[2.96004]	[55.38628]	[2.86625]	[53.45209]	[2.83783]
	(0.032)	(0.614)	(0.257)	(0.438)	(0.091)	(0.307)	(0.225)	(0.235)
Securities	12.04875	0.06588	3.26358	-2.18112	7.56447	-2.16273	4.37480	-1.48178
	[6.33284]	[1.61205]	[5.88322]	[1.50857]	[6.23728]	[1.58196]	[6.18795]	[1.56515]
	(0.057)	(0.967)	(0.579)	(0.148)	(0.225)	(0.172)	(0.48)	(0.344)
HTL	20.72621	0.80258	16.74330	0.21173	15.69830	1.00772	20.52561	0.59933
	[8.79217]	[0.68289]	[7.49819]	[0.6666]	[8.27178]	[0.60861]	[8.57865]	[0.58816]
	(0.018)	(0.24)	(0.026)	(0.751)	(0.058)	(0.098)	(0.017)	(0.308)
LTA	0.37995	-0.65229	-1.26794	-0.39205	-2.27392	-0.87327	-0.81762	0.07916
	[5.56684]	[1.03196]	[4.66335]	[0.94741]	[5.2107]	[1.00232]	[5.01025]	[0.99762]
	(0.945)	(0.527)	(0.786)	(0.679)	(0.663)	(0.384)	(0.87)	(0.937)
ENT_LLP/NPL	47.30424	-2.37390	5.03966	0.01582				
	[13.31254]	[1.8629]	[3.78627]	[0.84567]				
	(0.0)	(0.203)	(0.183)	(0.985)				
HH_LLP/NPL	-19.09670	-1.83241	6.78687	-4.03336				
	[11.82735]	[3.02806]	[7.16163]	[1.84621]				
	(0.106)	(0.545)	(0.343)	(0.029)				
NFS_LLP/NPL					-12.39170	-3.08027	7.15277	0.39417
					[17.21696]	[2.3007]	[5.22351]	[1.08984]
					(0.472)	(0.181)	(0.171)	(0.718)
Sargan test	1220.94		1280.34		1290.8		1300.65	
	(1.0)		1		1		1	
m1	-1.09		-1.21		-1		-0.81	
	(0.2748)		(0.228)		(0.3181)		(0.4201)	
m2	-0.29		-0.32		-0.38		-0.46	
	(0.775)		(0.7465)		(0.7052)		(0.6422)	

[ ] – standard errors
( ) – p-values

Table 7.

NFS. total lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.08134		-0.08621		-0.08743		-0.08777	
	[0.01567]		[0.0163]		[0.01559]		[0.01628]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	-0.00515		-0.00160		-0.00367		0.00146	
	[0.00437]		[0.0044]		[0.00432]		[0.00441]	
	(0.239)		(0.717)		(0.395)		(0.74)	
GDP	0.01199		0.01155		0.01231		0.01223	
	[0.00276]		[0.00278]		[0.00276]		[0.00279]	
	(0.0)		(0.0)		(0.0)		(0.0)	
CPI	-0.72248		-0.39975		-0.92509		-0.62943	
	[0.85546]		[0.8692]		[0.84888]		[0.86743]	
	(0.398)		(0.646)		(0.276)		(0.468)	
CAR	0.00522	-0.00096	0.00525	-0.00108	0.00548	-0.00110	0.00542	-0.00107
	[0.00038]	[0.00023]	[0.00038]	[0.00023]	[0.00038]	[0.00023]	[0.00038]	[0.00024]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
foreign ownership	-0.00323	-0.00037	-0.00374	-0.00031	-0.00346	-0.00044	-0.00398	-0.00032
	[0.00054]	[0.0001]	[0.00058]	[0.00011]	[0.00058]	[0.0001]	[0.00061]	[0.0001]
	(0.0)	(0.0)	(0.0)	(0.004)	(0.0)	(0.0)	(0.0)	(0.002)
assets	-12.06044	-0.21218	-13.17417	-0.31500	-12.28609	-0.20474	-13.20384	-0.31695
	[1.84163]	[0.11504]	[1.83945]	[0.11668]	[1.89708]	[0.11522]	[1.95203]	[0.11524]
	(0.0)	(0.065)	(0.0)	(0.007)	(0.0)	(0.076)	(0.0)	(0.006)
Securities	-0.11648	0.10569	-0.09711	0.14157	-0.13318	0.08047	-0.07167	0.16679
	[0.07939]	[0.04864]	[0.07822]	[0.04856]	[0.0795]	[0.0489]	[0.07966]	[0.04845]
	(0.142)	(0.03)	(0.214)	(0.004)	(0.094)	(0.1)	(0.368)	(0.001)
HTL	0.61857	0.01971	0.66335	0.02549	0.54064	0.00949	0.63889	0.01225
	[0.0926]	[0.01541]	[0.09309]	[0.01646]	[0.09584]	[0.01584]	[0.09776]	[0.01562]
	(0.0)	(0.201)	(0.0)	(0.122)	(0.0)	(0.549)	(0.0)	(0.433)
LTA	-0.75080	0.07085	-0.77571	0.06402	-0.76808	0.08142	-0.76344	0.06710
	[0.07215]	[0.02585]	[0.06865]	[0.0259]	[0.07296]	[0.02569]	[0.07087]	[0.026]
	(0.0)	(0.006)	(0.0)	(0.013)	(0.0)	(0.002)	(0.0)	(0.01)
ENT_LLP/NPL	0.54135	0.06825	0.08482	-0.02834				
	[0.10802]	[0.05175]	[0.04895]	[0.02822]				
	(0.0)	(0.187)	(0.083)	(0.315)				
HH_LLP/NPL	-0.16710	0.09953	0.06020	0.07714				
	[0.10577]	[0.05737]	[0.08097]	[0.04714]				
	(0.114)	(0.083)	(0.457)	(0.102)				
NFS_LLP/NPL					0.30890	0.12246	0.11723	-0.06168
					[0.11404]	[0.06644]	[0.05759]	[0.03482]
					(0.007)	(0.065)	(0.042)	(0.076)
Sargan test	1197.18		1205.18		1180.92		1142.3	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-8.83		-8.1		-8.83		-8.07	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-1.08		-2.13		-0.4		-1.63	
	(0.2791)		(0.0332)		(0.6866)		(0.1038)	

[ ] – standard errors
( ) – p-values

Table 8.

NFS. PLN lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.74866		-0.73351		-0.61209		-0.69961	
	[0.03397]		[0.03426]		[0.03404]		[0.0342]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	0.32774		0.30154		0.24461		0.30514	
	[0.04195]		[0.04198]		[0.04072]		[0.04179]	
	(0.0)		(0.0)		(0.0)		(0.0)	
GDP	-0.01873		-0.01211		-0.01202		-0.01929	
	[0.01038]		[0.01039]		[0.01]		[0.01034]	
	(0.071)		(0.244)		(0.229)		(0.062)	
CPI	26.85468		23.57033		20.19226		24.78035	
	[4.13151]		[4.14559]		[4.00951]		[4.12181]	
	(0.0)		(0.0)		(0.0)		(0.0)	
REER	-20.30732		-18.87585		-15.03315		-19.02070	
	[2.63348]		[2.63949]		[2.55898]		[2.63089]	
	(0.0)		(0.0)		(0.0)		(0.0)	
CAR	0.00573	-0.00023	0.00585	-0.00051	0.00584	-0.00090	0.00550	-0.00067
	[0.00081]	[0.00052]	[0.00081]	[0.00052]	[0.00076]	[0.00051]	[0.00079]	[0.00052]
	(0.0)	(0.657)	(0.0)	(0.332)	(0.0)	(0.08)	(0.0)	(0.199)
foreign ownership	0.00212	-0.00054	0.00211	-0.00065	0.00119	-0.00038	0.00259	-0.00047
	[0.0009]	[0.00015]	[0.00101]	[0.00015]	[0.00096]	[0.00014]	[0.00104]	[0.00015]
	(0.018)	(0.0)	(0.036)	(0.0)	(0.216)	(0.007)	(0.013)	(0.001)
assets	-0.83803	-0.09031	-0.63158	-0.09333	-3.15945	-0.13263	-0.21207	0.02269
	[2.54388]	[0.16263]	[2.51561]	[0.16461]	[2.58756]	[0.15813]	[2.67724]	[0.16255]
	(0.742)	(0.579)	(0.802)	(0.571)	(0.222)	(0.402)	(0.937)	(0.889)
Securities	-0.54987	-0.05052	-0.68476	-0.09286	-0.47394	-0.05166	-0.70633	-0.10415
	[0.10913]	[0.06784]	[0.11087]	[0.0689]	[0.11022]	[0.0675]	[0.11234]	[0.06841]
	(0.0)	(0.456)	(0.0)	(0.178)	(0.0)	(0.444)	(0.0)	(0.128)
HTL	0.32288	0.06414	0.16637	0.07010	0.52574	0.04976	0.08179	0.03846
	[0.16315]	[0.02215]	[0.16408]	[0.02317]	[0.18478]	[0.02185]	[0.17772]	[0.02244]
	(0.048)	(0.004)	(0.311)	(0.002)	(0.004)	(0.023)	(0.645)	(0.087)
LTA	-1.37448	-0.14727	-1.43917	-0.13406	-1.21155	-0.12083	-1.49456	-0.10086
	[0.10647]	[0.03727]	[0.10563]	[0.03724]	[0.11459]	[0.03605]	[0.10721]	[0.03715]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.001)	(0.0)	(0.007)
ENT_LLP/NPL	0.62542	-0.00665	-0.07768	-0.02028				
	[0.15577]	[0.07227]	[0.07486]	[0.042]				
	(0.0)	(0.927)	(0.299)	(0.629)				
HH_LLP/NPL	-0.33163	-0.20692	-0.13117	-0.23687				
	[0.15016]	[0.08095]	[0.11465]	[0.06611]				
	(0.027)	(0.011)	(0.253)	(0.0)				
NFS_LLP/NPL					-0.06641	-0.24633	-0.22079	-0.08143
					[0.17705]	[0.09031]	[0.08816]	[0.05113]
					(0.708)	(0.006)	(0.012)	(0.111)
Sargan test	2478.43		2508.79		1935.72		2389.78	
	(0.3394)		(0.1297)		(0.9964)		(0.0002)	
m1	-7.63		-7.27		-6.72		-7.09	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	0.34		0.28		0.52		0.88	
	(0.7335)		(0.7802)		(0.6012)		(0.3782)	

[ ] – standard errors
( ) – p-values

Table 9.

NFS. FX lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.11509		-0.10449		-0.09452		-0.09383	
	[0.02248]		[0.02247]		[0.02236]		[0.02254]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	0.04232		0.04313		0.03118		0.03285	
	[0.04911]		[0.04883]		[0.04911]		[0.04882]	
	(0.389)		(0.377)		(0.525)		(0.501)	
GDP	0.02830		0.02682		0.02556		0.03043	
	[0.01316]		[0.01323]		[0.01316]		[0.01323]	
	(0.032)		(0.043)		(0.052)		(0.021)	
REER	-1.91988		-0.19819		-1.87489		-0.79997	
	[2.64631]		[2.64609]		[2.65078]		[2.6519]	
	(0.468)		(0.94)		(0.479)		(0.763)	
CAR	0.00781	-0.00069	0.00679	-0.00175	0.00827	-0.00114	0.00679	-0.00245
	[0.00177]	[0.00155]	[0.00181]	[0.00156]	[0.00178]	[0.00157]	[0.0018]	[0.00154]
	(0.0)	(0.655)	(0.0)	(0.262)	(0.0)	(0.469)	(0.0)	(0.112)
foreign ownership	0.00230	0.00131	0.00213	0.00120	0.00091	0.00077	0.00194	0.00034
	[0.00201]	[0.00065]	[0.00201]	[0.00069]	[0.00208]	[0.00064]	[0.00214]	[0.00066]
	(0.253)	(0.044)	(0.291)	(0.08)	(0.664)	(0.231)	(0.366)	(0.604)
assets	11.81127	1.65760	9.79838	1.41442	10.37879	1.89186	9.01132	1.18310
	[5.50551]	[0.52702]	[5.72802]	[0.53544]	[6.14657]	[0.53175]	[6.54664]	[0.51764]
	(0.032)	(0.002)	(0.087)	(0.008)	(0.091)	(0.0)	(0.169)	(0.022)
Securities	-0.10920	-0.15054	-0.32895	-0.26874	-0.40509	-0.56352	-0.55164	-0.18178
	[0.39944]	[0.27431]	[0.39302]	[0.26658]	[0.41421]	[0.28584]	[0.4065]	[0.26273]
	(0.785)	(0.583)	(0.403)	(0.313)	(0.328)	(0.049)	(0.175)	(0.489)
HTL	2.49825	0.06804	3.44456	0.17434	2.50940	0.04998	3.36738	0.17172
	[0.43523]	[0.10153]	[0.44522]	[0.10275]	[0.43786]	[0.09763]	[0.46617]	[0.09365]
	(0.0)	(0.503)	(0.0)	(0.09)	(0.0)	(0.609)	(0.0)	(0.067)
LTA	-0.84697	0.45671	-1.20718	0.26265	-1.25543	0.43187	-1.39961	0.31143
	[0.31687]	[0.1571]	[0.31429]	[0.15518]	[0.31773]	[0.15495]	[0.31564]	[0.15722]
	(0.008)	(0.004)	(0.0)	(0.091)	(0.0)	(0.005)	(0.0)	(0.048)
ENT_LLP/NPL	2.77422	0.60238	1.13612	-0.12045				
	[0.74897]	[0.32137]	[0.26835]	[0.13968]				
	(0.0)	(0.061)	(0.0)	(0.389)				
HH_LLP/NPL	0.59382	0.99696	1.31089	0.87772				
	[0.6311]	[0.36966]	[0.45668]	[0.28647]				
	(0.347)	(0.007)	(0.004)	(0.002)				
NFS_LLP/NPL					2.95877	1.97248	1.28746	0.32667
					[1.14509]	[0.37751]	[0.32747]	[0.16562]
					(0.01)	(0.0)	(0.0)	(0.049)
Sargan test	1225.56		1207.76		1179.1		1185.84	
	(1.0)		1		1		1	
m1	-4.08		-4.01		-4.43		-4.49	
	(0.0)		(0.0001)		(0.0)		(0.0)	
m2	-1.33		-1.52		-0.99		-1.02	
	(0.1841)		(0.1292)		(0.3215)		(0.3079)	

[ ] – standard errors
( ) – p-values

Table 10.

NFS. total lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.33881		-0.32839		-0.33241		-0.32295	
	[0.03001]		[0.03098]		[0.03111]		[0.03132]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	-0.00600		-0.00250		-0.00389		-0.00234	
	[0.00161]		[0.00165]		[0.00163]		[0.0017]	
	(0.0)		(0.131)		(0.017)		(0.17)	
GDP	0.00252		0.00583		0.00384		0.00758	
	[0.00278]		[0.00287]		[0.00286]		[0.00292]	
	(0.365)		(0.042)		(0.18)		(0.009)	
CPI	-0.67355		-0.97174		-0.84339		-1.49691	
	[0.56454]		[0.58088]		[0.5846]		[0.5892]	
	(0.233)		(0.094)		(0.149)		(0.011)	
CAR	-0.00356	-0.00054	-0.00382	-0.00075	-0.00370	-0.00070	-0.00456	-0.00078
	[0.00047]	[0.00008]	[0.00052]	[0.00008]	[0.00055]	[0.00008]	[0.00054]	[0.00008]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
foreign ownership	-10.78282	-0.00013	-9.69050	-0.00011	-9.77584	-0.00014	-9.12083	-0.00014
	[1.00504]	[0.00004]	[1.02329]	[0.00004]	[1.04495]	[0.00004]	[1.05148]	[0.00004]
	(0.0)	(0.0)	(0.0)	(0.005)	(0.0)	(0.0)	(0.0)	(0.0)
assets	-0.28654	0.00737	-0.30237	-0.01261	-0.27640	0.01656	-0.27469	0.00776
	[0.05824]	[0.0324]	[0.06022]	[0.03317]	[0.06137]	[0.03231]	[0.06137]	[0.03274]
	(0.0)	(0.82)	(0.0)	(0.704)	(0.0)	(0.608)	(0.0)	(0.813)
Securities	0.24125	0.05479	0.21769	0.04473	0.07177	0.04679	0.20246	0.04835
	[0.0854]	[0.01609]	[0.08975]	[0.01651]	[0.09577]	[0.01677]	[0.09508]	[0.01658]
	(0.005)	(0.001)	(0.015)	(0.007)	(0.454)	(0.005)	(0.033)	(0.004)
HTL	-0.85445	-0.00159	-0.93941	-0.00242	-0.96571	-0.01192	-0.97323	-0.00991
	[0.05922]	[0.00476]	[0.05966]	[0.00511]	[0.06141]	[0.00474]	[0.06201]	[0.0047]
	(0.0)	(0.739)	(0.0)	(0.635)	(0.0)	(0.012)	(0.0)	(0.035)
LTA	0.45708	0.02306	-0.01264	0.01446	-0.04115	0.03265	-0.00017	0.02292
	[0.07479]	[0.00825]	[0.04008]	[0.0085]	[0.06926]	[0.00835]	[0.04489]	[0.00857]
	(0.0)	(0.005)	(0.752)	(0.089)	(0.552)	(0.0)	(0.997)	(0.008)
ENT_LLP/NPL	-0.26245	0.01833	0.01572	-0.01272				
	[0.06942]	[0.01349]	[0.05528]	[0.00897]				
	(0.0)	(0.174)	(0.776)	(0.156)				
HH_LLP/NPL	-0.00014	0.01875	-0.00020	0.01413				
	[0.00003]	[0.01866]	[0.00003]	[0.01561]				
	(0.0)	(0.315)	(0.0)	(0.365)				
NFS_LLP/NPL					-0.04115	0.02737	-0.00017	-0.02174
					[0.06926]	[0.01867]	[0.04489]	[0.01089]
					(0.552)	(0.143)	(0.997)	(0.046)
Sargan test	1520.49		1360.53		1332.4		1280.85	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-7.36		-7.43		-7.2		-7.01	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-1.08		-1.32		-0.98		-1.35	
	(0.2799)		(0.1865)		(0.3257)		(0.1785)	

[ ] – standard errors
( ) – p-values

Table 11.

NFS. PLN lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.40983		-0.42516		-0.39324		-0.39572	
	[0.04211]		[0.04223]		[0.04216]		[0.04201]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	0.26618		0.28231		0.27268		0.31987	
	[0.06745]		[0.06704]		[0.06602]		[0.06637]	
	(0.0)		(0.0)		(0.0)		(0.0)	
GDP	-0.00770		-0.00854		-0.00860		-0.00924	
	[0.00823]		[0.00823]		[0.00811]		[0.00821]	
	(0.35)		(0.299)		(0.289)		(0.26)	
CPI	7.94666		9.48341		8.20954		10.22920	
	[2.13156]		[2.12004]		[2.10257]		[2.10876]	
	(0.0)		(0.0)		(0.0)		(0.0)	
REER	-38.31832		-40.70836		-39.47035		-46.23808	
	[9.83743]		[9.77471]		[9.63168]		[9.679]	
	(0.0)		(0.0)		(0.0)		(0.0)	
CAR	0.00753	0.00170	0.00786	0.00130	0.00764	0.00152	0.00808	0.00127
	[0.00069]	[0.00019]	[0.00069]	[0.0002]	[0.00067]	[0.00019]	[0.00069]	[0.00019]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
foreign ownership	0.00064	-0.00045	0.00116	-0.00037	0.00063	-0.00040	0.00134	-0.00037
	[0.00109]	[0.00006]	[0.00108]	[0.00006]	[0.00113]	[0.00006]	[0.00112]	[0.00006]
	(0.559)	(0.0)	(0.284)	(0.0)	(0.576)	(0.0)	(0.231)	(0.0)
assets	1.39286	0.15050	0.16388	0.09386	0.46812	0.12585	0.16900	0.12761
	[1.69908]	[0.05499]	[1.66284]	[0.05556]	[1.69116]	[0.05338]	[1.69664]	[0.05374]
	(0.412)	(0.006)	(0.921)	(0.091)	(0.782)	(0.018)	(0.921)	(0.018)
Securities	-0.46872	-0.00923	-0.62310	0.00067	-0.49327	0.00946	-0.59934	-0.00052
	[0.10426]	[0.02733]	[0.1049]	[0.02751]	[0.10433]	[0.02723]	[0.10582]	[0.02752]
	(0.0)	(0.736)	(0.0)	(0.98)	(0.0)	(0.728)	(0.0)	(0.985)
HTL	-0.09729	-0.04855	-0.18967	-0.04354	-0.14591	-0.05258	-0.24138	-0.05020
	[0.18027]	[0.00814]	[0.17679]	[0.00859]	[0.18873]	[0.00785]	[0.188]	[0.00784]
	(0.589)	(0.0)	(0.283)	(0.0)	(0.439)	(0.0)	(0.199)	(0.0)
LTA	-1.07288	0.09921	-1.03397	0.09949	-1.07570	0.10935	-1.19984	0.10486
	[0.1026]	[0.01364]	[0.10177]	[0.01411]	[0.10336]	[0.01349]	[0.10286]	[0.01411]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
ENT_LLP/NPL	1.12987	-0.01603	0.10961	-0.01952				
	[0.14116]	[0.02219]	[0.07235]	[0.0144]				
	(0.0)	(0.47)	(0.13)	(0.175)				
HH_LLP/NPL	-0.42158	-0.02479	0.09410	-0.00860				
	[0.12381]	[0.0291]	[0.09352]	[0.02511]				
	(0.001)	(0.394)	(0.314)	(0.732)				
NFS_LLP/NPL					0.44773	-0.02449	0.03673	-0.01665
					[0.12856]	[0.03057]	[0.07754]	[0.01775]
					(0.0)	(0.423)	(0.636)	(0.348)
Sargan test	2058.71		2186.77		2076.67		2035.29	
	(1.0)		(0.9998)		(0.8656)		(0.9604)	
m1	-7.11		-7.52		-7.1		-6.84	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-0.02		-0.37		0.53		-0.18	
	(0.9868)		(0.7149)		(0.5988)		(0.8596)	

[ ] – standard errors
( ) – p-values

Table 12.

NFS. FX lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.06183		-0.05460		-0.05938		-0.05363	
	[0.02304]		[0.02331]		[0.023]		[0.02318]	
	(0.007)		(0.019)		(0.01)		(0.021)	
dMP	-0.00982		0.01384		-0.01036		-0.02428	
	[0.06564]		[0.06604]		[0.06443]		[0.06624]	
	(0.881)		(0.834)		(0.872)		(0.714)	
GDP	0.00119		0.00364		0.00082		0.00187	
	[0.0135]		[0.01379]		[0.01323]		[0.01381]	
	(0.93)		(0.792)		(0.951)		(0.892)	
REER	6.78794		4.11243		6.23714		8.36444	
	[8.28935]		[8.33799]		[8.13425]		[8.34143]	
	(0.413)		(0.622)		(0.443)		(0.316)	
CAR	0.00539	-0.00107	0.00789	-0.00090	0.00754	-0.00093	0.00693	-0.00099
	[0.00168]	[0.00042]	[0.00176]	[0.00042]	[0.00168]	[0.00043]	[0.00176]	[0.00041]
	(0.001)	(0.01)	(0.0)	(0.031)	(0.0)	(0.029)	(0.0)	(0.015)
foreign ownership	-0.00172	-0.00059	-0.00025	-0.00063	-0.00057	-0.00023	-0.00055	-0.00052
	[0.00211]	[0.00023]	[0.002]	[0.00024]	[0.00209]	[0.00022]	[0.00211]	[0.00022]
	(0.416)	(0.009)	(0.902)	(0.009)	(0.786)	(0.283)	(0.794)	(0.019)
assets	9.65556	0.00384	9.97915	-0.11088	8.64169	-0.02951	11.10482	-0.10689
	[4.13843]	[0.17771]	[4.05923]	[0.18352]	[4.31038]	[0.1727]	[4.30714]	[0.17584]
	(0.02)	(0.983)	(0.014)	(0.546)	(0.045)	(0.864)	(0.01)	(0.543)
Securities	0.70869	-0.11141	0.23865	-0.12712	0.77361	-0.13582	0.41724	-0.09368
	[0.34741]	[0.09675]	[0.35599]	[0.09583]	[0.3453]	[0.0985]	[0.36386]	[0.09741]
	(0.041)	(0.25)	(0.503)	(0.185)	(0.025)	(0.168)	(0.252)	(0.336)
HTL	3.82660	0.04886	3.96492	0.09532	3.59611	0.10155	4.24841	0.10416
	[0.49471]	[0.03972]	[0.49148]	[0.03974]	[0.48832]	[0.03627]	[0.51038]	[0.03633]
	(0.0)	(0.219)	(0.0)	(0.016)	(0.0)	(0.005)	(0.0)	(0.004)
LTA	-1.10220	-0.13649	-1.26236	-0.14479	-1.26720	-0.16979	-1.04525	-0.12058
	[0.297]	[0.05928]	[0.29771]	[0.05936]	[0.3036]	[0.05855]	[0.31018]	[0.06027]
	(0.0)	(0.021)	(0.0)	(0.015)	(0.0)	(0.004)	(0.001)	(0.045)
ENT_LLP/NPL	4.16477	0.23579	1.47740	0.09186				
	[0.80525]	[0.14433]	[0.25897]	[0.05252]				
	(0.0)	(0.102)	(0.0)	(0.08)				
HH_LLP/NPL	-0.34261	-0.11835	0.48299	-0.02305				
	[0.69177]	[0.14522]	[0.45686]	[0.10516]				
	(0.62)	(0.415)	(0.29)	(0.827)				
NFS_LLP/NPL					2.06486	0.37866	1.24477	0.11302
					[1.32728]	[0.16586]	[0.3173]	[0.06215]
					(0.12)	(0.022)	(0.0)	(0.069)
Sargan test	1178.37		1151.93		1176.16		1155.61	
	(1.0)		1		1		1	
m1	-4.2		-4.31		-3.71		-4.33	
	(0.0)		(0.0)		(0.0002)		(0.0)	
m2	-3.77		-3.53		-3.94		-3.49	
	(0.0002)		(0.0004)		(0.0001)		(0.0005)	

[ ] – standard errors
( ) – p-values

Table 13.

ENT. total lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.24035		-0.23872		-0.23228		-0.23882	
	[0.01565]		[0.01593]		[0.01541]		[0.01577]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	-0.00411		-0.00190		-0.00059		0.00177	
	[0.00613]		[0.006]		[0.006]		[0.00602]	
	(0.502)		(0.752)		(0.922)		(0.769)	
GDP	0.01080		0.01059		0.01044		0.00926	
	[0.00381]		[0.0038]		[0.00376]		[0.0038]	
	(0.005)		(0.005)		(0.005)		(0.015)	
CPI	0.78464		0.88314		0.93594		1.44117	
	[1.17635]		[1.1745]		[1.16344]		[1.17507]	
	(0.505)		(0.452)		(0.421)		(0.22)	
CAR	0.01424	0.00130	0.01360	0.00125	0.01365	0.00132	0.01359	0.00116
	[0.00048]	[0.00032]	[0.00047]	[0.00032]	[0.00047]	[0.00032]	[0.00047]	[0.00032]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
foreign ownership	-0.00465	-0.00017	-0.00521	-0.00022	-0.00557	-0.00026	-0.00553	-0.00018
	[0.00077]	[0.00015]	[0.00079]	[0.00015]	[0.00077]	[0.00014]	[0.00083]	[0.00014]
	(0.0)	(0.254)	(0.0)	(0.14)	(0.0)	(0.067)	(0.0)	(0.217)
assets	-3.72300	0.04590	-7.09166	-0.03861	-3.08664	0.13837	-5.48670	-0.00275
	[2.62628]	[0.16085]	[2.55117]	[0.15866]	[2.68872]	[0.15891]	[2.7271]	[0.15778]
	(0.156)	(0.775)	(0.005)	(0.808)	(0.251)	(0.384)	(0.044)	(0.986)
Securities	-0.30190	0.10886	-0.32055	0.17194	-0.39718	0.07898	-0.31465	0.21143
	[0.11293]	[0.06747]	[0.11025]	[0.06618]	[0.11292]	[0.0671]	[0.1126]	[0.06679]
	(0.008)	(0.107)	(0.004)	(0.009)	(0.0)	(0.239)	(0.005)	(0.002)
HTL	2.28162	0.04217	2.53531	0.01918	2.49992	0.02735	2.67634	0.02788
	[0.1234]	[0.02184]	[0.12113]	[0.0223]	[0.12557]	[0.02206]	[0.12892]	[0.02178]
	(0.0)	(0.053)	(0.0)	(0.39)	(0.0)	(0.215)	(0.0)	(0.201)
LTA	-0.79965	0.07294	-0.88437	0.09097	-0.72614	0.07452	-0.90343	0.09753
	[0.10229]	[0.03614]	[0.0959]	[0.03542]	[0.10295]	[0.03537]	[0.09784]	[0.0356]
	(0.0)	(0.044)	(0.0)	(0.01)	(0.0)	(0.035)	(0.0)	(0.006)
ENT_LLP/NPL	-0.04143	0.14005	0.13662	0.02364				
	[0.17093]	[0.06906]	[0.07159]	[0.03847]				
	(0.808)	(0.043)	(0.056)	(0.539)				
HH_LLP/NPL	0.86208	0.04134	0.40809	0.05377				
	[0.15144]	[0.08087]	[0.11045]	[0.06529]				
	(0.0)	(0.609)	(0.0)	(0.41)				
NFS_LLP/NPL					1.18319	0.29342	0.35351	0.04265
					[0.17323]	[0.08832]	[0.0831]	[0.04624]
					(0.0)	(0.001)	(0.0)	(0.356)
Sargan test	1371.61		1394.85		1337.65		1360.5	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-7.39		-5.99		-6.68		-5.54	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-0.34		-1.15		0.1		-1.18	
	(0.7315)		(0.2484)		(0.9167)		(0.2384)	

[ ] – standard errors
( ) – p-values

Table 14.

ENT. PLN lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.41595		-0.48340		-0.41701		-0.41547	
	[0.04614]		[0.04959]		[0.0424]		[0.04293]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	-0.26049		-0.27591		-0.37195		-0.21407	
	[0.29298]		[0.30407]		[0.28153]		[0.28573]	
	(0.374)		(0.364)		(0.186)		(0.454)	
GDP	0.06018		-0.00851		0.03770		0.01811	
	[0.07115]		[0.07403]		[0.06861]		[0.06939]	
	(0.398)		(0.908)		(0.583)		(0.794)	
CPI	-36.50930		-22.88410		-43.49447		-27.81793	
	[28.64055]		[29.79241]		[27.6135]		[27.97513]	
	(0.202)		(0.442)		(0.115)		(0.32)	
REER	12.19489		9.71897		16.37921		5.52715	
	[18.37106]		[19.11391]		[17.67263]		[17.97212]	
	(0.507)		(0.611)		(0.354)		(0.758)	
CAR	-0.00160	0.00004	0.00736	-0.00089	0.00021	-0.01225	0.00307	-0.01114
	[0.00583]	[0.00365]	[0.00606]	[0.00373]	[0.00546]	[0.00353]	[0.00566]	[0.00348]
	(0.783)	(0.992)	(0.224)	(0.812)	(0.969)	(0.001)	(0.588)	(0.001)
foreign ownership	0.00403	-0.00488	0.02450	-0.00348	0.01617	-0.00419	0.02831	-0.00361
	[0.00613]	[0.001]	[0.00716]	[0.00109]	[0.00609]	[0.00096]	[0.00685]	[0.00097]
	(0.51)	(0.0)	(0.001)	(0.001)	(0.008)	(0.0)	(0.0)	(0.0)
assets	67.07503	0.50045	56.37217	-0.60865	60.24661	-0.30261	48.74288	-0.91601
	[17.85883]	[1.11711]	[18.22762]	[1.16863]	[17.83992]	[1.07648]	[18.08399]	[1.08768]
	(0.0)	(0.654)	(0.002)	(0.602)	(0.001)	(0.779)	(0.007)	(0.4)
Securities	-1.60999	0.14125	-3.12059	-0.49045	-2.80757	-0.35360	-3.58396	-0.38184
	[0.77281]	[0.47237]	[0.79607]	[0.49048]	[0.75693]	[0.45462]	[0.76314]	[0.46183]
	(0.037)	(0.765)	(0.0)	(0.317)	(0.0)	(0.437)	(0.0)	(0.408)
HTL	-2.46318	-0.83156	-2.51043	-0.33734	-3.13452	-0.74968	-2.63599	-0.89797
	[0.9521]	[0.1518]	[0.98177]	[0.16428]	[0.96203]	[0.14863]	[1.01385]	[0.15066]
	(0.01)	(0.0)	(0.011)	(0.04)	(0.001)	(0.0)	(0.009)	(0.0)
LTA	2.79064	-0.60913	1.83012	-0.53170	1.33714	-0.67705	1.45217	-0.68181
	[0.76274]	[0.25325]	[0.76501]	[0.26506]	[0.76261]	[0.24227]	[0.73554]	[0.2495]
	(0.0)	(0.016)	(0.017)	(0.045)	(0.08)	(0.005)	(0.048)	(0.006)
ENT_LLP/NPL	3.82306	-3.04667	1.00424	-2.34152				
	[1.15549]	[0.47756]	[0.52754]	[0.29136]				
	(0.001)	(0.0)	(0.057)	(0.0)				
HH_LLP/NPL	2.87941	0.09244	2.43772	-0.34924				
	[0.99176]	[0.53592]	[0.7991]	[0.45943]				
	(0.004)	(0.863)	(0.002)	(0.447)				
NFS_LLP/NPL					0.06607	-1.39467	1.34864	-1.08302
					[1.17045]	[0.54807]	[0.59645]	[0.32604]
					(0.955)	(0.011)	(0.024)	(0.001)
Sargan test	1970.04		1906.2		2214.68		2078.02	
	(1.0)		(1.0)		(0.1582)		(0.861)	
m1	-19.62		-20.86		-18.08		-17.39	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	8.19		9.18		6.21		6.21	
	(0.0)		(0.0)		(0.0)		(0.0)	

[ ] – standard errors
( ) – p-values

Table 15.

ENT. FX lending

Policy variable: Wibor1M	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.00029		-0.00009		0.00629		0.00730	
	[0.01263]		[0.01259]		[0.01239]		[0.01254]	
	(0.982)		(0.994)		(0.612)		(0.561)	
dMP	-0.01037		-0.02650		-0.02834		-0.01779	
	[0.05044]		[0.04972]		[0.04935]		[0.04933]	
	(0.837)		(0.594)		(0.566)		(0.718)	
GDP	0.02025		0.01678		0.01682		0.02300	
	[0.01325]		[0.0132]		[0.01305]		[0.01313]	
	(0.126)		(0.204)		(0.198)		(0.08)	
REER	-0.11056		1.27364		0.25992		0.12873	
	[2.65299]		[2.62123]		[2.59894]		[2.62298]	
	(0.967)		(0.627)		(0.92)		(0.961)	
CAR	0.00381	-0.00120	0.00276	-0.00187	0.00383	-0.00219	0.00302	-0.00247
	[0.00197]	[0.00164]	[0.00201]	[0.00162]	[0.00194]	[0.00161]	[0.002]	[0.0016]
	(0.053)	(0.466)	(0.17)	(0.249)	(0.049)	(0.174)	(0.131)	(0.123)
foreign ownership	0.00427	0.00191	0.00146	0.00201	0.00282	0.00215	0.00206	0.00170
	[0.00189]	[0.00065]	[0.00188]	[0.00067]	[0.00196]	[0.00063]	[0.00198]	[0.00065]
	(0.024)	(0.003)	(0.435)	(0.003)	(0.151)	(0.001)	(0.297)	(0.009)
assets	11.07636	0.71847	10.30248	0.82906	12.48288	1.02190	11.30690	0.62809
	[5.56656]	[0.52919]	[5.77519]	[0.5276]	[5.90397]	[0.52509]	[6.22436]	[0.50908]
	(0.047)	(0.175)	(0.074)	(0.116)	(0.034)	(0.052)	(0.069)	(0.217)
Securities	0.20010	0.18720	-0.10916	-0.09560	0.17653	-0.09197	-0.17790	-0.02691
	[0.39677]	[0.27904]	[0.38182]	[0.26497]	[0.39944]	[0.28138]	[0.38838]	[0.25815]
	(0.614)	(0.502)	(0.775)	(0.718)	(0.659)	(0.744)	(0.647)	(0.917)
HTL	4.14120	0.25462	4.36438	0.32015	3.89947	0.29203	4.06976	0.37616
	[0.43349]	[0.105]	[0.44125]	[0.10412]	[0.42787]	[0.10045]	[0.46367]	[0.09605]
	(0.0)	(0.015)	(0.0)	(0.002)	(0.0)	(0.004)	(0.0)	(0.0)
LTA	-2.07051	0.15112	-2.16639	0.01410	-2.03183	0.15299	-2.16189	0.02377
	[0.30835]	[0.15652]	[0.30791]	[0.15107]	[0.3083]	[0.15158]	[0.30899]	[0.15337]
	(0.0)	(0.334)	(0.0)	(0.926)	(0.0)	(0.313)	(0.0)	(0.877)
ENT_LLP/NPL	2.44689	0.29524	0.44213	-0.11733				
	[0.71988]	[0.31532]	[0.26195]	[0.13587]				
	(0.001)	(0.349)	(0.091)	(0.388)				
HH_LLP/NPL	1.64978	0.60338	1.78778	0.67744				
	[0.62627]	[0.36274]	[0.45952]	[0.27906]				
	(0.008)	(0.096)	(0.0)	(0.015)				
NFS_LLP/NPL					0.00490	1.20791	0.00445	0.16534
					[0.00089]	[0.36492]	[0.00088]	[0.16024]
					(0.0)	(0.001)	(0.0)	(0.302)
Sargan test	942.56		989.74		928.23		969.46	
	(1.0)		1		1		1	
m1	-6.95		-6.84		-6.48		-6.83	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-1.77		-1.81		-1.56		-1.55	
	(0.0769)		(0.0699)		(0.1184)		(0.1215)	

[ ] – standard errors
( ) – p-values

Table 16.

ENT. total lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.46142		-0.44208		-0.44299		-0.43098	
	[0.02926]		[0.02918]		[0.02915]		[0.02905]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	0.00385		0.00300		0.00352		0.00429	
	[0.00203]		[0.00203]		[0.00201]		[0.00207]	
	(0.058)		(0.139)		(0.08)		(0.039)	
GDP	0.01711		0.01861		0.01812		0.02039	
	[0.00346]		[0.00346]		[0.00345]		[0.00351]	
	(0.0)		(0.0)		(0.0)		(0.0)	
CPI	-1.94162		-2.49562		-2.50750		-3.05286	
	[0.7041]		[0.69946]		[0.70009]		[0.70699]	
	(0.006)		(0.0)		(0.0)		(0.0)	
CAR	0.00655	-0.00114	0.00583	-0.00112	0.00632	-0.00095	0.00596	-0.00110
	[0.00043]	[0.0001]	[0.00043]	[0.0001]	[0.00043]	[0.0001]	[0.00044]	[0.0001]
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
foreign ownership	-0.00454	-0.00008	-0.00506	-0.00010	-0.00522	-0.00009	-0.00561	-0.00011
	[0.00061]	[0.00004]	[0.00059]	[0.00005]	[0.0006]	[0.00004]	[0.00062]	[0.00004]
	(0.0)	(0.074)	(0.0)	(0.032)	(0.0)	(0.035)	(0.0)	(0.009)
assets	-5.29064	0.01222	-5.12277	0.03386	-4.04130	0.07008	-3.99980	0.09396
	[1.25484]	[0.04057]	[1.23074]	[0.04076]	[1.26101]	[0.03982]	[1.26051]	[0.03992]
	(0.0)	(0.763)	(0.0)	(0.406)	(0.001)	(0.078)	(0.002)	(0.019)
Securities	-0.38812	0.02992	-0.36884	0.04137	-0.49642	0.04303	-0.40927	0.04545
	[0.07592]	[0.02056]	[0.07588]	[0.02054]	[0.07683]	[0.02085]	[0.07608]	[0.02051]
	(0.0)	(0.146)	(0.0)	(0.044)	(0.0)	(0.039)	(0.0)	(0.027)
HTL	1.75209	-0.00460	1.92619	-0.00888	1.83221	-0.00541	1.96710	-0.01234
	[0.10173]	[0.00605]	[0.10209]	[0.00645]	[0.10529]	[0.00602]	[0.10817]	[0.00594]
	(0.0)	(0.448)	(0.0)	(0.169)	(0.0)	(0.369)	(0.0)	(0.038)
LTA	-1.04309	0.00798	-1.06346	0.01418	-0.98748	0.02088	-1.17828	0.02644
	[0.07418]	[0.0103]	[0.07287]	[0.0104]	[0.07507]	[0.01026]	[0.07478]	[0.01037]
	(0.0)	(0.438)	(0.0)	(0.173)	(0.0)	(0.042)	(0.0)	(0.011)
ENT_LLP/NPL	-0.73248	0.01104	-0.15907	-0.00656				
	[0.11349]	[0.01597]	[0.05214]	[0.01047]				
	(0.0)	(0.489)	(0.002)	(0.531)				
HH_LLP/NPL	0.92274	-0.00702	0.44920	0.01202				
	[0.09206]	[0.02235]	[0.06918]	[0.01898]				
	(0.0)	(0.753)	(0.0)	(0.527)				
NFS_LLP/NPL					0.52265	0.03599	-0.09043	-0.00340
					[0.09554]	[0.02258]	[0.058]	[0.01246]
					(0.0)	(0.111)	(0.119)	(0.785)
Sargan test	1309.47		1406.14		1335.21		1387.69	
	(1.0)		(1.0)		(1.0)		(1.0)	
m1	-4.19		-3.75		-3.07		-2.36	
	(0.0)		(0.0002)		(0.0022)		(0.0181)	
m2	-3.5		-3.02		-3.61		-4.17	
	(0.0005)		(0.0025)		(0.0003)		(0.0)	

[ ] – standard errors
( ) – p-values

Table 17.

ENT. PLN lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	-0.52229		-0.57677		-0.47953		-0.49909	
	[0.04302]		[0.04524]		[0.04178]		[0.04149]	
	(0.0)		(0.0)		(0.0)		(0.0)	
dMP	-0.79328		-0.61422		-0.58226		-0.47782	
	[0.4553]		[0.48562]		[0.44947]		[0.43802]	
	(0.081)		(0.206)		(0.195)		(0.275)	
GDP	-0.04533		-0.01830		-0.05503		-0.07633	
	[0.05532]		[0.05871]		[0.05476]		[0.05351]	
	(0.413)		(0.755)		(0.315)		(0.154)	
CPI	-18.76208		-9.90849		-6.41600		6.01237	
	[14.25463]		[15.05562]		[14.03003]		[13.7177]	
	(0.188)		(0.51)		(0.647)		(0.661)	
REER	111.72280		84.27075		76.71611		61.11389	
	[66.40355]		[70.82215]		[65.54344]		[63.87853]	
	(0.092)		(0.234)		(0.242)		(0.339)	
CAR	-0.00420	0.00520	0.02237	0.00470	0.02297	0.00084	0.03113	0.00078
	[0.0069]	[0.00138]	[0.0072]	[0.0014]	[0.00649]	[0.00137]	[0.00681]	[0.0013]
	(0.543)	(0.0)	(0.002)	(0.001)	(0.0)	(0.542)	(0.0)	(0.547)
foreign ownership	22.24259	-0.00273	5.10328	-0.00167	-4.47292	-0.00212	-13.96661	-0.00205
	[11.25984]	[0.0004]	[11.58686]	[0.00044]	[10.98689]	[0.00039]	[10.87871]	[0.00038]
	(0.048)	(0.0)	(0.66)	(0.0)	(0.684)	(0.0)	(0.199)	(0.0)
assets	-0.97060	0.33796	-2.68741	-0.51607	-2.15405	-0.29910	-2.52124	-0.49954
	[0.70323]	[0.37267]	[0.73962]	[0.40037]	[0.71008]	[0.36073]	[0.68591]	[0.35575]
	(0.168)	(0.364)	(0.0)	(0.197)	(0.002)	(0.407)	(0.0)	(0.16)
Securities	-2.64634	-0.01405	-1.07341	0.03634	-2.61721	-0.02952	-3.11259	-0.13814
	[1.02326]	[0.18965]	[1.01224]	[0.19953]	[1.02272]	[0.18862]	[1.04742]	[0.18613]
	(0.01)	(0.941)	(0.289)	(0.855)	(0.01)	(0.876)	(0.003)	(0.458)
HTL	3.58920	-0.51123	2.29429	-0.37663	2.02965	-0.41407	1.92929	-0.42409
	[0.69341]	[0.05812]	[0.71129]	[0.06314]	[0.68958]	[0.05676]	[0.68523]	[0.05463]
	(0.0)	(0.0)	(0.001)	(0.0)	(0.003)	(0.0)	(0.005)	(0.0)
LTA	9.80434	0.06835	4.04778	0.01065	3.39733	0.12190	2.33605	0.00943
	[1.02794]	[0.0937]	[0.49637]	[0.10166]	[0.84487]	[0.09304]	[0.50874]	[0.09432]
	(0.0)	(0.466)	(0.0)	(0.917)	(0.0)	(0.19)	(0.0)	(0.92)
ENT_LLP/NPL	-0.44363	-1.21932	1.71045	-0.47751				
	[0.81959]	[0.1486]	[0.64737]	[0.09829]				
	(0.588)	(0.0)	(0.008)	(0.0)				
HH_LLP/NPL	0.00043	0.24339	0.00033	-0.11164				
	[0.00039]	[0.19818]	[0.0004]	[0.17864]				
	(0.261)	(0.219)	(0.403)	(0.532)				
NFS_LLP/NPL					-0.00086	0.05407	-0.00070	-0.14360
					[0.00039]	[0.2067]	[0.00037]	[0.10878]
					(0.026)	(0.794)	(0.058)	(0.187)
Sargan test	2058.56		2206.96		2322.24		2178.6	
	(1.0)		(0.9999)		(0.0112)		(0.3229)	
m1	-22.28		-21.68		-21.32		-18.83	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	10.69		11.23		9.43		7.94	
	(0.0)		(0.0)		(0.0)		(0.0)	

Table 18.

ENT. FX lending

Policy variable: MCI	loan quality: LLP		loan quality: NPL		loan quality: LLP		loan quality: NPL	
	var	var*dMP	var	var*dMP	var	var*dMP	var	var*dMP
Lagged dependent	0.02106		0.02131		0.02191		0.02444	
	[0.01263]		[0.01269]		[0.01255]		[0.01265]	
	(0.095)		(0.093)		(0.081)		(0.053)	
dMP	0.00444		0.00483		0.00897		0.02285	
	[0.07031]		[0.07064]		[0.06896]		[0.07039]	
	(0.95)		(0.946)		(0.896)		(0.746)	
GDP	0.00973		0.00724		0.01273		0.00945	
	[0.01375]		[0.01393]		[0.01356]		[0.01407]	
	(0.479)		(0.603)		(0.348)		(0.502)	
REER	2.55839		2.31394		1.47510		-0.44224	
	[8.79296]		[8.82431]		[8.61217]		[8.78122]	
	(0.771)		(0.793)		(0.864)		(0.96)	
CAR	0.00464	-0.00087	0.00581	-0.00066	0.00515	-0.00104	0.00602	-0.00070
	[0.00191]	[0.00049]	[0.00197]	[0.00048]	[0.00193]	[0.0005]	[0.00198]	[0.00048]
	(0.015)	(0.074)	(0.003)	(0.172)	(0.008)	(0.039)	(0.002)	(0.142)
foreign ownership	-0.00114	-0.00051	-0.00145	-0.00066	0.00062	-0.00011	-0.00169	-0.00038
	[0.002]	[0.00022]	[0.00186]	[0.00023]	[0.00198]	[0.00021]	[0.00199]	[0.00022]
	(0.568)	(0.023)	(0.438)	(0.005)	(0.754)	(0.598)	(0.397)	(0.081)
assets	10.63979	-0.04147	10.55419	-0.09852	9.02052	-0.02621	11.15662	-0.03913
	[4.05061]	[0.17208]	[4.04042]	[0.17592]	[4.11184]	[0.16799]	[4.139]	[0.16905]
	(0.009)	(0.81)	(0.009)	(0.575)	(0.028)	(0.876)	(0.007)	(0.817)
Securities	0.54031	-0.15540	0.11800	-0.22564	0.38686	-0.14499	0.29514	-0.17981
	[0.33524]	[0.09218]	[0.3357]	[0.0897]	[0.32916]	[0.09418]	[0.34405]	[0.0924]
	(0.107)	(0.092)	(0.725)	(0.012)	(0.24)	(0.124)	(0.391)	(0.052)
HTL	4.74828	0.06208	4.82398	0.10974	4.47855	0.10961	4.80159	0.13665
	[0.46807]	[0.0399]	[0.45998]	[0.03896]	[0.46262]	[0.03636]	[0.47916]	[0.03524]
	(0.0)	(0.12)	(0.0)	(0.005)	(0.0)	(0.003)	(0.0)	(0.0)
LTA	-1.63685	-0.13305	-1.78797	-0.15720	-1.71777	-0.13386	-1.56406	-0.10399
	[0.2779]	[0.05635]	[0.28624]	[0.05569]	[0.28579]	[0.05622]	[0.29437]	[0.0569]
	(0.0)	(0.018)	(0.0)	(0.005)	(0.0)	(0.017)	(0.0)	(0.068)
ENT_LLP/NPL	2.72035	0.06613	0.73601	0.08516				
	[0.81352]	[0.11447]	[0.2523]	[0.05051]				
	(0.001)	(0.563)	(0.004)	(0.092)				
HH_LLP/NPL	1.44816	-0.00064	0.85775	-0.08806				
	[0.67907]	[0.13843]	[0.44137]	[0.09983]				
	(0.033)	(0.996)	(0.052)	(0.378)				
NFS_LLP/NPL					-0.00001	0.14708	-0.00003	0.12587
					[0.00018]	[0.13746]	[0.00018]	[0.0594]
					(0.948)	(0.285)	(0.878)	(0.034)
Sargan test	1010.92		1032.68		988.78		994.13	
	(1.0)		1		1		1	
m1	-5.76		-6.01		-5.68		-6.3	
	(0.0)		(0.0)		(0.0)		(0.0)	
m2	-3.83		-3.25		-3.72		-3.05	
	(0.0001)		(0.0011)		(0.0002)		(0.0023)	

[ ] – standard errors
( ) – p-values