Essays on financial intermediation in developing countries
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Concluding Remarks

Economic systems in developing countries often suffer from a number of imperfections, such as the existence of weak institutions, the lack of proper regulations and enforcement of rules, and the absence of quality information. In such weak economic environments, adverse selection and moral hazard problems are widespread, because economic agents have asymmetric information, and the incentives of different agents are not aligned.

Financial intermediation in developing countries has been hampered by the existence of these imperfections. The presence of adverse selection means that certain individuals may be left out of the financial intermediation process, or even that entire financial markets may fail to exist. Examples of moral hazard problems are the misuse of control rights by banks and bank owners, banks taking advantage of the existence of deposit insurance funds, and lending to insiders.

Insider lending in particular has been a major cause of recent banking crises. In Chapter 1, we have developed a model of insider lending, in which a borrower can give incentives to a bank manager to misuse his right of control by extending a loan at favourable rates to the borrower at the expense of the equity value of the bank. The model helps to explain why we often observe that insider loans occur to borrowing firms that are also large shareholders of the bank. The reason is that, although in principal every borrower could bribe the bank manager for insider loans, large shareholders have the power to fire the bank manager, and will use this power if the bank manager extends insider loans to others. Therefore, a bank manager has a reason to favour large shareholders if engaging in insider lending. We have also argued that insider lending is at the expense of minority shareholders, whose equity in the bank decreases in value, and the depositors, because of the increased possibility that the bank will fail.

To support the model we have looked at the relationships between Russian firms and banks using a World Bank survey conducted in mid-1994. We have found evidence that Russian firms and banks engaged into insider lending on the basis of loan volume. Although we find that firms that are major shareholders of banks get loans on preferential terms with respect to loan volume, we did not find any sign of insider lending on the basis of interest rate levels. The reason for this might be that it is easier to hide fraudulent
lending behaviour towards outsiders if you juggle with the volume of a loan rather than with the interest rate.

In Russia, it is possible for industrial firms to own bank shares and for entrepreneurs to sit on the management board of banks. The model shows that such shareholders on the management board of the bank need only to give a relatively small bribe to the bank manager to make him extend insider loans to the companies owned by the shareholders, because they can threaten to fire the bank manager. They might even be able to appoint a friend as the new bank manager, in which case no bribe will be necessary at all. An obvious question is why Russia has allowed those large shareholders with outside control of large firms on the management board of banks in the first place. The bank regulator could prevent the involvement of such shareholders in insider lending practices simply by forbidding shareholders with outside links to be on the management board of banks. Besides political reasons, one good reason for allowing those shareholders on the management board of banks is that these shareholders might have superior knowledge on particular industries which makes the monitoring of normal loans more efficient. Hence, the regulator has to make a trade-off between having more experience on board or more insider lending. Also, this is some form of extreme relationship banking between the bank and a group of its firms.

In Chapter 1, we have also proposed ways to limit insider lending in countries with severe moral hazard problems such as present-day Russia. Although Russia has some regulations in place to limit the exposures of banks to related parties, those rules have remained largely ineffective, because regulators have been unable to enforce such rules, either because of lack of information or imprudent behaviour. We propose to limit insider lending by either penalising bank managers if it is discovered that they have engaged in such malpractice, or by putting all bank managers on an equity incentive scheme. The advantages of both proposals are that they are relatively cheap and easy to implement. We do, however, acknowledge that such instruments may not be completely effective in countries like Russia, where the enforcement of contracts is poor, and where managerial behaviour may not be strongly linked to the value of shares.

Efforts to limit insider lending have also been a key ingredient of recent financial liberalisation packages. Other financial liberalisation measures have included the liberalisation of interest rates, the removal of entry barriers, the lowering of reserve
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requirements, the lifting of credit controls, and the abolishment of subsidised credit programs. In general, such financial liberalisation measures have been received positively, especially by those firms that did not benefit from the subsidised credit programs. In many countries, small firms have also favoured these new policies, because they had most problems to get financing when the financial system was repressed.

In Chapter 3, we show for a large number of developing countries that financial liberalisation reduces the imperfections faced by firms dealing with financial markets. Firm's investment becomes less dependent on its financial leverage. Furthermore, we find that financial liberalisation affects small and large firms differently. Before financial liberalisation takes place, small firms are found to be much more financially constrained than large firms. Financial liberalisation then relaxes the external financing constraints for small firms, but has little impact on the financing constraints of large firms. Eventually, the difference between large and small firms disappears. It seems that only small firms in developing countries gain from financial liberalisation. We hypothesise that in many developing countries large firms had access to preferential directed credit during the period before financial liberalisation. This form of favouritism is likely to disappear during financial liberalisation. In the case of large firms, the efficiency benefits of financial liberalisation thus seem to be offset by the adverse effects of losing access to preferential credit. Another explanation is that large firms might suffer less from informational asymmetries, and thus have better access to credit in general. We also find that countries that have made substantial progress in liberalising their financial sector have shown dramatic improvements in their political climate as well. Successful financial liberalisation seems to require both the political will and ability to stop the preferential treatment of well-connected firms, firms that often tend to be large.

As a special case of financial liberalisation, we have looked at the Republic of Korea, where, in order to support small and medium-sized enterprises, the government not only abolished the old government directed credit program that supported large companies, but also introduced special measures aimed at providing the necessary external financing for small and medium-sized enterprises (SMEs). In 1987, the government directly improved the access to funds of SMEs by imposing minimum credit targets for SMEs on banks, and raised financing constraints for large and chaebol-affiliated firms by introducing credit control criteria. In Chapter 4, we have assessed the
financing constraints of Korean firms during the period 1991-97 during which the SME support program was fully operational. We find that Korean firms in general suffered from informational asymmetries and severe financing constraints during this period. These imperfections, however, seem to differ across firms. Large and/or chaebol-affiliated firms tend to face the largest financing constraints. We also find some evidence that firms with concentrated ownership are more financially constrained than firms with dispersed ownership. These findings suggest that the government's change in focus towards small and medium-sized enterprises, firms that are often independent, has been successful in the sense that it has led to an improved access to funds for SMEs.

From the recent turmoil in financial markets we have learned that financial liberalisation packages need to include measures aimed at introducing prudential regulation. Without a proper regulatory framework in place, many policies aimed at reducing financial market imperfections, such as policies aimed at limiting insider lending practices, will be ineffective. The recent financial crises have also shown the urgent need for policymakers and market participants to improve upon our currently available set of tools to assess the risk of a bank. At the onset of the recent financial crises in East Asia, for example, most bank analysts and rating agencies were unaware of the true risks that were underlying most of the banks in the region.

In Chapter 5, we propose a way to measure the risk of a bank that could easily be implemented widely and is based upon market information on the bank. We argue that the degree of risk-taking of a bank is related to the implicit cost to insure the deposits of that bank. The cost of deposit insurance can be calculated by applying a technique that models deposit insurance as a put option on the bank's assets. We calculate these insurance premiums for a large sample of banks to assess the relationship between risk taking behaviour of banks and certain bank characteristics. We find that the cost of deposit insurance is higher for banks with concentrated ownership, that are affiliated to a business group, that are small, and/or have high credit growth, and for banks in countries with low levels of GDP per capita, high inflation rates, and/or poor quality and enforcement of the legal systems. These findings suggest that moral hazard behaviour of a bank depends on its institutional environment and its corporate governance structure. We also present a matrix that shows estimates of the cost of deposit insurance for a range of given combinations of equity volatilities and equity-to-deposit ratios. These figures
could be used as input to an early warning system of both individual and systemic banking problems.