Chapter 9

Summary and conclusions

In this dissertation we have considered the impact of institutional investors on the liquidity of equity markets. Institutional investors have become an important part of the financial services industry over the last few decades. Mutual funds, life insurance companies and pension funds have particularly increased the assets under their management. They invest a substantial part of their assets in equity. Also, their impact on trading volumes has been noticeable. As a consequence, institutional investors have become important for the liquidity of equity markets.

The importance of equity markets can be marginalized if they lack liquidity. We reviewed the definitions of liquidity and its measures in Chapter 3. There is neither a single definition nor a single measure of liquidity. Each of them just emphasizes a different aspect of liquidity. Liquidity matters because it influences the cost of capital for the suppliers of shares and the cost of trading for investors. Informational asymmetries among traders seem to be the most important source of illiquidity and the resulting costs. If shares are held in large blocks with institutional investors and are not frequently traded, their liquidity is low. The lower the liquidity, the higher the required returns for investors, and the higher the cost of capital for firms that issued the shares. Institutional ownership may also have a positive effect on the cost of capital. Large equity stakes enable institutional investors to become active shareholders. As such, they can enhance the value of their firms so that the market prices of shares increase. The higher the prices of shares, the lower the cost of capital for the firms. Monitoring gives institutional investors an informational advantage, but it makes it more difficult for them to trade (without price impact) as informed traders. Hence, institutional investors may or may not improve liquidity.

Theoretical models help us understand the ‘workings’ of the impact of institutional investors on market liquidity. We discuss the most relevant models in Chapter 5. The models come primarily from the market microstructure literature and the corporate governance literature. The former emphasizes the importance of asymmetrical information among
traders. With respect to institutional investors, it matters whether they invest in information acquisition and consequently trade on information, or act simply as uninformed, liquidity traders.

The corporate governance literature emphasizes the role of institutional investors as shareholders. The size of ownership stakes that institutions own in individual companies is crucial for the liquidity of shares, and for the incentives of institutions to become active shareholders. First, the pool of potential traders shrinks when institutional investors hold large stakes. Second, a liquid market may provide an incentive for informed traders (e.g., institutional investors) to engage in more monitoring, i.e., they are punished less by doing so, and can possibly reap the benefits from their monitoring more easily. All in all, there may be a trade-off between liquidity and institutional control.

This liquidity-control trade-off can also be explained in the following way. Institutional investors need liquid markets in order to monitor the firms or buy information and trade on it (the market microstructure perspective). Information is costly. For the investment in information to pay off, institutional investors need sufficiently large ownership stakes in the firms. But the more shares institutional investors hold, the less shares there are available for trade in the market. In other words, large ownership stakes by institutional investors may suppress the liquidity of shares (the corporate governance perspective on liquidity). Note that the existence of small shareholders who are free riding on the benefits from monitoring by institutional investors reduces the incentives of institutions to engage in monitoring. The problem of free riders affects the diversification opportunities and the trading intensity of institutions. The bottom line is: should an institutional investor hold a smaller stake in the firm and trade more, or should it own a larger stake and intervene in the firm in order to increase its value, and lower its cost of capital?

The common property of the models concerning institutional investors and liquidity is that liquidity is typically represented by exogenous shocks that hit uninformed traders. Alternatively, a certain level of liquidity is assumed without being modeled specifically. Consequently, there are few theoretical results on the relationship between institutional investors and liquidity that can be directly empirically tested. We tested some theoretical relationships using unique data for transition economies.

Transition economies show a positive trend towards ownership concentration. Privatization investment funds are typically among the largest holders of shares in the privatized companies. Capital markets of transition economies have a short history and they are characterized by the strong presence of domestic and foreign institutional investors. Different methods of privatization and diverging speeds of economic reforms have led to a differential influence of institutional investors on the liquidity of equity markets in various transition economies. We study the impact of domestic institutional investors on the equity markets in Hungary and Slovenia. The differences between the two countries in this respect can be assigned to the factors we pointed out in Chapter 2 and again in Chapter 8. In other
words, the legal environment, securities regulation, privatization, pension reform and the level of economic development are crucial determinants of the development of institutional investors and equity markets.

Although Hungary and Slovenia faced similar economic conditions at the start of the nineties, the different reforms of the financial system during the nineties led to different outcomes. Liberal legislation with respect to foreign investment in Hungary stimulated investment by foreign institutional investors, while the restrictive rules prevented most foreign mutual funds from entering the Slovenian market on the same scale. As a result, the Hungarian stock market blossomed while the LJSE remained relatively small. The relatively closed environment enabled a particular type of closed-end funds, the PIDs, to play an important role in the equity market.

Existing empirical evidence for other countries, which we reviewed in Chapter 4, suggests that institutional investors have a substantial effect on stock prices and returns, and their volatility. Institutional investors prefer to hold the most liquid shares of large, known companies. Furthermore, institutions tend to imitate each other's trading behavior, which can further amplify their impact on the capital market. There is growing evidence that institutional ownership reduces the liquidity of developed equity markets.

We did not find such a result in Chapter 6 where we studied the impact of institutional investors on the liquidity of the Hungarian equity market. Pension funds and mutual funds are becoming ever more important investment alternatives for Hungarian households each year. Both mandatory and voluntary pension funds are growing fast in terms of membership and total asset value. Mutual funds show a similar development. However, the rising importance of domestic institutional investors in Hungary is not reflected in its impact on the liquidity of shares on the Budapest Stock Exchange. We investigated the impact of the Hungarian open-end funds on the domestic equity market in three ways: i) we considered the impact of net fund flows on the returns on the overall stock market index BUX; ii) we tested whether information contained in past flows of money to open-end funds explains any variation in current returns on the stock market index BUX; and iii) we examined the impact of net fund flows and market volatility on the overall equity market liquidity. Our results can be summarized as follows.

First, the estimated regression coefficients on the impact of net fund flows on the returns on the market index BUX are not statistically significant. The most likely explanation for such a result is that Hungarian open-end funds do not hold large stakes in the companies that are listed on the BSE. Low shareholdings in the listed companies prevent domestic funds from having any significant trading impact.

Second, the net fund flows contribute to the explanation of the variation in market returns. Despite the fact that mutual funds do not hold substantial stakes in the listed companies, the money that they place on the stock market affects the returns on the market.
Third, we found evidence that positive net fund flows increase the change in market index per unit of traded value, our measure of liquidity. The larger the flows, the greater the price impact of fund trades, and the lower the liquidity of the market. Our results suffer from the lack of statistical significance, though. Relative to the size of the equity market, the net fund flows are too small to affect it significantly. Moreover, the investment of open-end funds in the quoted shares is very low and as such prevents the funds from having a sizable impact on the liquidity of shares.

The analysis of the impact of mutual funds on the liquidity of the Slovenian equity market in Chapter 7 delivered some significant results. Results concur with the existing empirical evidence elsewhere. We focused on PIDs, the Slovenian version of closed-end privatization funds. Open-end mutual funds are too small to have a significant impact on the organized equity market yet. Through purchases of shares and equity stakes on and off the Ljubljana Stock Exchange (LJSE), PIDs are becoming larger shareholders of listed and unlisted firms each year. Excluding certificates, corporate shares represent more than 90% of total PID portfolios. We consider the impact of the introduction of the shares of PIDs to the stock exchange and the impact of PIDs via their shareholdings in listed firms.

We found some evidence that the trade in PID shares, and their increasing importance in the market capitalization of the equity market had an impact on the trading volume of non-PID shares in 1998-1999. Our main result is that the ownership stakes of PIDs and other large shareholders have a negative impact on the liquidity of the Slovenian stock market. Foreign ownership of listed securities decreases different measures of liquidity further. These results are robust.

Overall, our empirical analysis raises an important issue. Do domestic mutual funds in Hungary and Slovenia act as portfolio managers or as active corporate governors? Should institutional investors in general act as portfolio managers or active shareholders? The orientation of institutional investors in this respect seems to be a crucial determinant of their impact on the liquidity of equity markets. As active portfolio managers, institutional investors support the liquidity of capital markets, as active shareholders they may mitigate it.

While the Hungarian mutual fund managers emphasize the role of funds as portfolio managers, the Slovenian PIDs seem to act more like the governors. It is questionable, however, whether mutual funds in Hungary and Slovenia have the necessary abilities and expertise for being active shareholders/governors. The portfolio structure of mutual funds In Hungary suggests that their asset management service could also be put under question. To be viewed as asset managers, the local mutual funds will have to change their asset structure. Shares will have to gain in importance at the expense of government securities in the future. For the Slovenian PIDs to be considered active corporate governors the following should occur. PIDs will have to get the ownership certificates off their balance sheets and transform themselves into some other organizational form that will better support their
shareholder activism.

Financial opening, regulatory changes and competition from other financial institutions, such as pension funds will be additional factors shaping the future development of mutual funds in Hungary and Slovenia. The growth of pension funds may stimulate the development of mutual funds if pension funds decide to delegate the management of their assets to mutual funds. Pension funds also seem to be a more suitable candidate for the role of active shareholders.

Overall, our analysis provides new insights into the issues that surround the so-called liquidity-control trade-off. In particular, this thesis offers another step towards understanding the determinants of the liquidity of equity markets. We have considered the impact of mutual funds on liquidity here for this purpose. The impact of pension funds and other institutional investors on liquidity would be interesting to study in transition economies when these institutions are more developed. In order to clarify the liquidity-control dilemma further, the impact of institutional investors on the value of their companies needs to be carefully investigated. This would constitute an interesting complement to our research.
Third, we found evidence that positive net-flows (i.e., funds) always decrease the average price per unit of the underlying asset or stock of the fund. This means the negative wealth effect of capital inflows to domestic investors, and the positive wealth effect of capital outflows from domestic investors, is stronger than the reverse effects of fund outflows from domestic investors, and of fund inflows to domestic investors. In other words, the net flow of funds is dominated by the net flow of funds to domestic investors.

The analysis of the impact of net-flows on the price of the underlying asset or stock of the fund reveals two important insights. First, the net flow of funds to domestic investors has a significant impact on the price of the underlying asset or stock, while the net flow of funds to foreign investors has a much smaller impact. Second, the net flow of funds to domestic investors has a positive impact on the price of the underlying asset or stock, while the net flow of funds to foreign investors has a negative impact. These results are robust.

We also found evidence that the funds in HIFs change and their increasing importance on the market composition of the equity market had an impact on the trading volume of the HIF shares in 1990-1999. Our main result is that the ownership shares of HIFs and other large shareholders have a negative impact on the liquidity of the Slovenian stock market. Foreign shareholders as almost 100% decrease the presence of liquidity further. These results are robust.

Overall, our empirical analysis offers important insights. Do domestic mutual funds in Hungary and Slovenia act as portfolio managers or as active shareholders/governors? How institutions invest in general act as portfolio managers or active shareholders? The orientation of institutional investors in this report seems to be a crucial determinant of their impact on the liquidity of equity markets. As active portfolio managers institutional investors support the liquidity of capital markets, as active shareholders they may mitigate it.

While the Hungarian mutual fund managers emphasize the role of funds as portfolio managers, the Slovenian PFTs seem to act more like the government. It is questionable, however, whether mutual funds in Hungary and Slovenia have the necessary abilities and expertise for being active shareholders/governors. The portfolio structure of mutual funds in Hungary suggests that their asset management service could also be put under question. To be viewed as asset managers, the local mutual funds will have to change their asset structure. Shares will have to gain in importance as the topic of government securities in the future. For the Slovenian PFTs to be considered active corporate governors the following should occur: PFTs will have to get the ownership certificates of their balance sheets and transform themselves into some other organizational form that will better support their...