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Capital Markets, Financial Intermediaries, and Corporate Governance

An Empirical Assessment of the Top Ten Voucher Funds in the Czech Republic

Roland Egerer

Many expected mass privatization to result in widely dispersed ownership and weak external governance of firms. But Czech investment funds — now key players in equity markets — are monitoring and influencing corporations on behalf of small investors. Meanwhile, a close relationship between Czech banks and corporations (with banks as both lenders and shareholders in investment funds) has reduced banks' risk and their cost of getting information about and monitoring firms' performance.

The World Bank
Europe and Central Asia,
and Middle East and North Africa Regions
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Summary findings

Voucher privatization was expected to result in widely dispersed ownership with little effect on firms' governance. But in the first wave of privatization, more than 70 percent of Czech vouchers went to investment funds and the 10 largest Czech and Slovak investment funds (surveyed for this study) acquired roughly half of all voucher points.

And the large funds can influence corporate governance. A fund holding large stakes (up to 20 percent) in a single enterprise can appoint directors to the board, help select management, and otherwise monitor corporate decision-making.

A fund's actual role depends on the sponsoring institution's or individual's incentive structure. Foreign bank-sponsored and nonbank funds are stronger corporate monitors than funds sponsored by domestic banks.

Banks and investment funds lack the skills and incentives to initiate corporate restructuring, but funds with significant stakes can readily compare managers' performance and remove underperforming executives and can counterbalance the control of management and employees. Funds can also effectively monitor firms on behalf of groups of small investors.

After privatization, most Czech assets are now owned by funds affiliated with banks. In market economies, a close relationship between banks and enterprises may be seen as a conflict of interest. In transition economies — where information costs are high because corporate performance is not transparent and where collateral-based lending remains fraught with uncertainty — banks and funds have spontaneously developed a relationship as a way for banks to get information about firm performance. Bank-sponsored funds reduce banks' information and monitoring costs and hence lending risk and costs. They also facilitate the informal workout of problem loans.

This paper — a product of the Finance and Private Sector Development Team, Technical Department, Europe and Central Asia, and Middle East and North Africa Regions — is part of a larger effort in the Bank to analyze the restructuring in transition economies. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Darlene Brown, room H8-099, telephone 202-373-3542, fax 202-477-8772. December 1995. (45 pages)

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Capital markets, financial intermediaries, and corporate governance:
An empirical assessment of the top ten voucher funds in the Czech Republic*

Roland Egerer

The World Bank
and
University of St. Gallen, Switzerland

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ABBREVIATIONS

GDP	Gross Domestic Product
CSK	Czechoslovak Crown
CZK	Czech Crown
IPF	Investment privatization fund
n/a	not available
m	million
bn	billion
$	United States dollars

1. Introduction

It is widely acknowledged that privatization of state-owned companies is one of the key reforms for transition economies. What is less clear is the best design for privatization, its advantages and drawbacks and its interdependencies with other reform elements such as the role of capital markets[1]. One of the most discussed privatization strategies implemented in a few countries in transition can be summarized under 'mass privatization', mainly through the use of vouchers or investment points to be distributed among the population.

The voucher scheme has often been criticized as merely a formal method of privatization without actual impact on the governance structure of a company. It is argued that voucher privatization results in dispersed ownership and therefore weak monitoring of firms that require strong owners in order to restructure and turn around companies in increasingly competitive markets (van Brabant, 1990 and 1991, Frydman and Rapaczynski, 1991).

However, in the former CSFR, the spontaneous creation of financial intermediaries in the form of investment privatization funds (IPFs) was a first step towards more concentration of ownership rights (Frydman et al., 1993). Today, IPFs are the most important players in equity markets in the Czech and Slovak Republics.

What lessons can be drawn from more than one year of activity of IPFs in the Czech Republic? Two methodological approaches to this problem are possible. In a bottom-up

[1] There might be different meanings of the term 'capital markets'. Here capital markets can be broadly divided into equity and debt instruments, where equity instruments mainly consist of markets in ownership rights. Debt instruments deal with all kinds of external finance coming either from banks in the form of loans or related financing or through the issue of debt on capital markets.

approach one would analyze the outcome of IPFs' activity, namely the performance of the enterprises themselves[2].

This study will use an alternative approach in which investment funds as new institutions in emerging capital markets are central. This gives rise to several questions:

- How can the behavior of funds be explained?
- Why do certain funds do what they do?
- What is the economic and legal environment in which investment funds act?
- What is the role of funds as institutional players in restructuring firms after privatization?

To answer these questions, this study will analyze the top ten investment privatization funds that emerged in the first wave of privatization in the Czech Republic and discusses the main results of the fund survey[3].

2. An overview of the process of voucher privatization in the Czech Republic

A total of 1,491 companies with a book value of CSK277.7 billion ($10 billion) have been privatized in the first privatization wave, which started in 1991 when Czechoslovakia was still united[4]. While privatization slowed down in Slovakia after the split, the second wave has been carried out in the Czech Republic (see Table 1).

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[2] The idea behind this reasoning is that if enterprises perform well then the owners must have done a good job, too. Although this kind of reasoning might be true in some cases, it would be difficult to separate the influence of owners on enterprise performance from other factors such as competition in product markets. In addition, this kind of approach would require a considerable data set on enterprises which is still difficult to obtain at this time.

[3] Fund interviews have been carried out in July and August 1994.

[4] For a detailed analysis of the privatization process in former Czechoslovakia see Svejnar and Singer (1994) and Triska (1994).

In the beginning of the first wave the interest of the population in the process was fairly low. Only when some funds started aggressive marketing campaigns did people start to buy voucher booklets containing 1,000 investment points each (Brom and Orenstein, 1993, 23). In the end 75% (78% in the Czech Republic) of the eligible population participated. This means that every citizen investing a voucher book received on average 32.4 shares (with a book value of CSK1,000 for each share).

Table 1: Key figures from the two waves of voucher privatization in the Czech Republic

	First wave		Second wave
	Former CSFR	Czech Republic	Czech Republic
Number of companies involved	1491	943	867
Total book value privatized (CSK billion)	278	201	155
Eligible population participating (in %)	75	78	80
Number of investment funds competing	439 1/	264	353
Share of points allocated to IPFs (in %)	71.4	72.5	64

1/ but only 344 founders since some sponsors founded several funds.
Source: Mejstrik et al. (1994); Mejstrik (1994).

The distribution of shares was carried out in five bidding rounds[5]. Before the bidding started, in the so-called zero round, people could decide to either invest on their own or transfer their points to one of the newly-founded investment privatization funds (IPFs). In the zero round, 6.22 million people[6] transferred 6.1 billion voucher points to IPFs. This represents over 71% of all points available in the first wave. The remaining 29% of participating citizens made individual choices about how to invest (see Figure 1).

There are various reasons for the success of funds in Czech voucher privatization:

- funds were thought to have better access to non-public information, and thus, to select more attractive enterprises,
- funds offer a diversified portfolio which limits risk,

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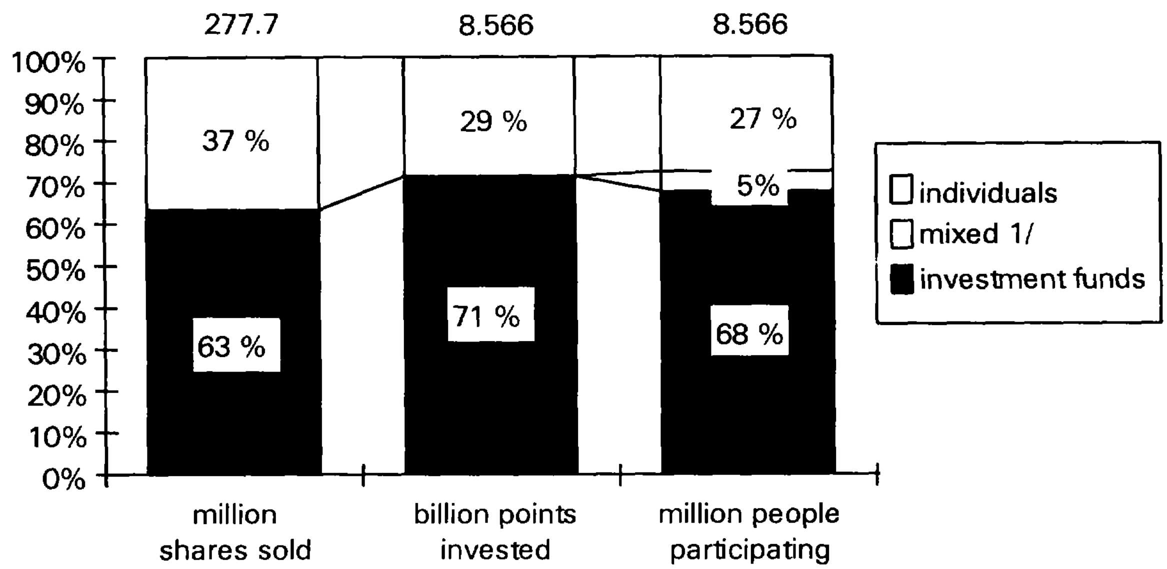
[5] For a more detailed analysis of the Czech privatization see, for example, Mladek (1994) or Kotbra (1993). For an assessment of the bidding process see Shafik (1993 and 1994).

[6] 5.8 million people transferred all and another 420,000 part of their points to IPFs.

– some funds offered to buy back fund shares for several times the amount each voucher holder had to pay for a voucher book.

Figure 1: Key results of the investment process in the first wave of privatization



1/ people investing part of their points themselves and another part with funds.

3. Survey of Czech voucher funds

The analysis tries to shed some light on the ownership patterns that emerged after privatization. In order to get a better understanding on this issue, the set of the top ten investment funds which emerged in the first wave in the Czech Republic are analyzed. The ten biggest Czech funds represent more than 43% of the entire market, measured in number of investment points acquired, and more than 60% of the market held by funds (see Table 2)[7].

In choosing the top ten funds for an analysis about investment funds, it is not suggested that big funds behave similarly. On the contrary, very distinctive patterns can be observed

[7] The ten biggest Czech *and* Slovak funds account for half of all voucher points and about 71% of all points allocated to funds.

among the ten funds in this survey. The reason for choosing the top ten funds was to provide a set that captures a high market share. Although some smaller funds might behave differently than the funds analyzed here, the chosen fund set in this study is sufficiently representative of the system as a whole during and after the privatization process to enable conclusions about the role of funds.

In order to describe and analyze various funds, a more detailed conceptual framework shall be provided by classifying between different types of funds.

Table 2: The top ten investment funds in the Czech Republic

Investment fund group 1/		% of total	% of points
Abbreviation	Full name	points	acquired by funds
CS	Ceska Sporitelna	11.1	15.6
IB	Investicni Banka	8.4	11.9
HCC	Harvard Capital & Consulting 4/	7.5	10.5
KB	Komercni Banka	5.4	7.6
CP	Ceska Pojistovna	3.9	5.5
CA	Creditanstalt 5/	1.9	2.7
PPF	PPF	1.4	1.9
ZB	Zivnostenska Banka	1.4	1.9
AB	Agrobanka 6/	1.3	1.8
YSE	YSE 2/	0.8	1.2
	Subtotal fund set	**43.1**	**60.6**
	Other funds 3/	28.3	39.4
	Total funds	71.4	100.0

1/ For bank sponsored funds IPFs are classified by sponsors (see also next chapter).

2/ Due to limited data coming from investment fund Bohemia (No. 10 in size with 1.0% of all the points), which is the IPF from Banka Bohemia, the private fund YSE was included in our set of top ten funds. This change insignificantly influences the overall importance of the top ten Czech funds among all funds operating in the Czech Republic (60.6% instead of 60.8%)

3/ of which some bigger Slovak Investment Funds that invested in Czech shares, e. g. VUB (5.8% of total points), Slovenske Investicie (2.2% of total points), SSK - Investment Company of Slovak Savings Bank and VSZ Kosice (2% of total points), Slovenska Investicni Banka (1.7% of total points) and Slovenska Pojistovna (1.4% of total points). These five bigger Slovak funds together collected 13.1% of all points and amount to 18.2% of total points invested in funds.

4/ includes 0.8% of total points from the Slovak fund of Harvard.

5/ includes 0.3% of total points from the Slovak fund of Creditanstalt.

6/ includes 0.5% of total points from the Slovak fund of Agrobanka.

Source: Fund interviews and Mejstrik (1994).

4. Fund classification

Investment funds were founded either by financial institutions, such as banks or insurance companies, by corporations or by individuals. Among the top ten Czech funds one can identify three types of funds: domestic bank sponsored funds (five funds), foreign bank sponsored funds (two funds), and non-bank funds (three funds) (see Table 3).

Table 3: Classification of top ten voucher investment funds in the Czech Republic

Fund classification	order of rank in size 1/	Sponsor	Ab-brevi-ation	Manage-ment company	Number of funds	Investment Privatization Fund 2/
Domestic bank sponsored funds	1	Ceska Sporitelna (Czech Savings Bank)	CS	SIS	1	SPAS 3/
	2	Investicni Banka (Czech Investment Bank)	IB	PIAS	12	Rentiersky Investment Fund using 23.3% of all points acquired by PIAS
	4	Komercni Banka	KB	IKS	1	IPF KB
	5	Ceska Pojistovna (Czech Insurance Company	CP	KIS	1	PIF
	9	Agrobanka	AB	A-Invest	9	A-Invest
Foreign bank sponsored funds	6	Creditanstalt	CA	Credit-anstalt Investment Company	1	Creditanstalt IPF
	7	Zivnostenska Banka	ZB	ZB-Trust	1	Zivnostenska 1. Fund
Non-bank funds	3	---	HCC	Harvard Capital & Consulting	8	Harvard Dividend Fund (which represents 49% of Harvard's assets)
	8	---	PPF	PPF	4	Privni Cesky Fond
	10	---	YSE	YSE	1	IF YSE

1/ in terms of investment points acquired in the first wave.
2/ for sponsors that founded more than one investment fund one had been selected for comparison purposes.
3/ SPAS was directly founded by its sponsor Ceska Sporitelna and not by a newly founded management company like other bank sponsored funds.
Source: Fund interviews.

This classification stands even though one could argue that foreign bank sponsored funds are private since the foreign sponsor is private and could therefore be put in one single group of private funds together with non-bank funds. The difference between funds lies in ownership and activity of the sponsor.

Ownership of management companies and sponsoring banks is important in fund analysis since many banks were still state-owned when they founded their funds. Since most banks have been included in the first privatization wave and the majority of their capital has been privatized, the arguments relating to indirect state ownership of sponsors of investment funds will be of less importance over time. However, the activity of banks as sponsors leads to a close association of investors and lenders that would be regarded as an undesirable conflict of interest in some countries (e.g., U.S.). The funds are using employees from the sponsor to select companies in the bidding process and – at a later stage – to sit on boards of the companies that the fund owns. The sponsoring bank, moreover, is getting information from the fund that might be useful to develop its lending business[8]. The funds sponsored by the principal Czech banks (see Table 3) each hold more than 10% in a company's capital in about half of their portfolio companies (see Table 11). Zivnostenska Banka[9] and Creditanstalt, a major bank from Austria, are also active in banking.

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[8] However, one fund in the category of domestic bank sponsored funds does not entirely fit: the overall activity of Ceska Pojistovna is insurance and not banking. However, Ceska Pojistovna has the same reciprocal relationship with its management company as many other bank sponsored funds.

[9] The majority of the capital of Zivnostenska Banka is in foreign hands (40% BHF Bank of Germany and 12% IFC). This is the reason why Zivnostenska Banka is in the group of foreign bank sponsored funds. Nevertheless, the bank is not a foreign bank like Creditanstalt that came from another country and started from scratch a subsidiary. Rather Zivnostenska was a Czechoslovak bank that sold the majority of its capital to foreign partners and can therefore be regarded as a 'bank with major foreign participation'. Another aspect why Zivnostenska Banka is different from other Czech banks is the quality of its client portfolio: the tasks of the bank under the former Czechoslovak banking system was to carry out the hard currency business for the population. Therefore, the bank does not suffer from bad loans inherited from the past like some other financial institutions in the country. This might be one of the reasons why Zivnostenska

Most management companies founded one single investment fund whereas others (like Harvard and PIAS) founded several funds. The reasons for founding several funds are two-fold: some management companies wanted to offer specialized funds by investing in a certain region or industry or funds meeting different preferences of investors, like funds oriented on growth and others on high dividends. Second, some funds wished to circumvent the upper 20% limit of ownership in a specific company, as this law applied in the beginning only to the individual fund level. This law was later changed and applied at the fund group level[10] so that fund groups owning more than 20% of a company in theory had to sell part of their shares (but did not always in practice).

5. Investment strategy of voucher funds

The choice of investment strategy relates to the desirable functions of a fund (Anderson, 1994): First, a fund should provide the investor with a diversified portfolio. Czech law requires a minimum diversification of investment funds requiring that a fund has to invest in at least ten companies. Second, a fund should try to select undervalued enterprises. In "efficient" Western equity markets, underpriced shares are rare since share prices reflect all public information on potential future earnings of an enterprise. In contrast, in a privatization process there is much more potential to pick undervalued companies since information is scarce and costly. IPFs were expected to have better management capabilities and more insights in enterprises and thus have a higher probability of choosing undervalued enterprises than individuals. All this goes to show that investment funds make emerging markets more efficient. Third, funds are expected to exert governance over companies they hold in their portfolio. The degree of governance mainly depends on the share that a fund holds in a specific company. On the lower end, (dispersed ownership), there is the US-type mutual fund that is limited by government regulations and tax laws to

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Banka is the only Czech Bank that was 100% privatized after the first wave (the remaining 48% of the capital were distributed via vouchers) whereas the Fund of National Property still owns a minority stake in most other Czech banks.

[10] A fund group consists of all investment funds managed by a single management company.

owning no more than a few percent in a given enterprise. On the upper end, (concentrated ownership), there are venture capital or so-called turn-around funds which are often major owners in portfolio enterprises and often provide capital and management resources to restructure an enterprise. In the Czech and Slovak Republics, funds may own up to 20% in a given enterprise, and thus they lie in the middle of the above-mentioned extremes.

Table 4: Supply (shares) and demand (voucher points) in the first wave of privatization

	Bidding Round							%
	1	2	3	4	5	TOTAL	available	matched
voucher points used (billion)	2.98	3.41	1.02	0.51	0.52	8.44	8.56	98.6
Number of shares sold (million)	89.4	77.8	32.5	37.1	40.9	277.7	299.4	92.8
average number of points per share	33.3	43.8	31.4	13.7	12.7	30.4	28.6	-
share transfer per 1,000 points	30.0	22.8	31.9	72.7	78.7	32.4	35.0	-
Source: Mejstrik et al. (1994).								

How did the funds select their portfolios? Two strategies are possible. First, a fund, like any other investor, could use its points for more expensive shares (more points per share) or cheaper shares (fewer points per share). Over the five bidding rounds, the difference between the most expensive and the cheapest share was 600:1[11]. Second, a fund could invest in a dispersed portfolio with many enterprises or in a concentrated portfolio with only a few enterprises. Since every fund has a limited number of points, the two aspects are related.

In order to evaluate whether funds invested in cheaper or more expensive shares, one can compare the book value of shares acquired per voucher book invested. The book value of each share was set at CSK1,000, and one voucher book consisted of 1,000 investment points that each citizen over 18 years of age was eligible to purchase for CSK1,035 ($35 which amounts to 25% of an average monthly income at that time). The higher the average

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[11] For a more detailed analysis of the investment procedure over the five bidding rounds see Shafik (1993 and 1994).

share price (expressed in points per share) of a fund's portfolio of shares acquired in the voucher auction, the lower the book value of those shares[12]. If one takes the total book value of shares privatized in the first wave, the average book value per voucher book invested amounts to CSK32,400. In the case of IPFs, the average book value was only CSK29,000. This indicates that funds typically invested in more expensive shares compared to individuals (see Table 5).

Table 5: Investment mode

by	Voucher points invested		Number of shares acquired		Average book value per voucher book
	million	in %	CSK million	in %	CSK
IPFs	6,112	71.4	176.0	63.4	29,000
Individuals	2,454	28.6	101.7	36.6	41,400
TOTAL	8,566	100.0	277.7	100.0	32,400

Source: Mejstrik et al. (1994) and author's calculations.

Investments by individual investors had two features (see Table 22 in the appendix). First, they were neutral to enterprise size as far as their potential influence in the enterprise was concerned, since as individuals they were too small to exert any influence over even a small company. Second, individual investors seemed to prefer large (and therefore well known) enterprises[13]. This is very much in contrast to funds, especially small investment funds that preferred to invest in small companies (71% of the companies in which small funds invested were small companies). It should be mentioned that share prices for smaller companies were on average considerably higher[14] than share prices for bigger companies.

[12] In the Czech and Slovak Republics, it is customary to divide the total book value of the fund's shares by the number of voucher books transferred to the fund to derive a "book value per voucher book". A similar calculation can be made for all the shares bought by individuals who did not transfer their vouchers to a fund.

[13] Individual investors spent 57% of their voucher points to bid for large enterprises.

[14] The average price is defined here as the unweighted mean of share prices of all companies.

In addition, as a group, small funds invested only in half the number of companies as medium and large funds. This was their only chance to exert influence over the companies in their portfolio, given the limited number of points the small funds acquired. Of the companies held by small funds, 98% were small and medium, whereas large funds diversified their investments relatively evenly among all sizes of enterprises. In short, small investment funds, due to limited number of points and the investment strategy chosen, have a much greater ability to act as turn-around funds with stronger governance incentives. In contrast, larger funds – due to the number of points acquired and the maximum level of 20% per company – emerged with relatively less concentrated portfolios with reduced governance incentives. The analysis will discuss below to what extent the 20% limit of ownership in a single company was a binding condition for the top ten funds.

Table 6: Rank of IPFs by book value per voucher book

Investment strategy	Low-price-shares			High-price-shares						
IPF 1/	YSE	PPF	AB	KB	HCC	CP	CS	CA	IB	ZB
Book value [CSK1,000] 2/	48.5	41.8	33.6	25.6	23.8	22.7	22.5	21.8	18.5	16.0
Rank by fund size 3/	10	8	9	4	3	5	1	6	2	7
Fund category 4/	NB	NB	DB	DB	NB	DB	DB	FB	DB	FB

1/ Names of funds by fund group (for bank sponsored funds categorization by sponsor): YSE=YSE; PPF=PPF; AB=Agrobanka; KB=Komercni Banka; HCC=Harvard Capital & Consulting; CP=Ceska Pojistovna; CS=Ceska Sporitelna; CA=Creditanstalt; IB=Investicni Banka; ZB=Zivnostenska Banka.

2/ per voucher book invested (average book value of privatized property per voucher book: CSK32,400).

3/ in terms of investment points acquired in the first wave.

4/ NB=non-bank; DB=domestic bank sponsored; FB=foreign bank sponsored.

Source: Fund interviews.

Looking at our set of the top ten Czech funds one can see they behaved very distinctively with respect to the outlined high-price vs. low-price investment strategy. YSE fund acquired an average book value of shares three times as high as Zivnostenska Banka's, in other words, Zivnostenska Banka's fund spent three times as many points per share in the portfolio (see Table 6). Seven funds opted (on average) for high-price shares (low book value per voucher book) whereas only three funds tried to focus on low-price shares (high book value per voucher book). It should be noted that it is the relatively smaller and non-bank funds (YSE and PPF) that are at the upper end in our set in opting for cheaper shares. These funds mainly invested their points in bidding rounds four and five where the average number of points for one share was considerably lower than in the previous rounds (compare Table 4). This investment strategy was risky since the funds ran the risk of being left with unused points. Most of the other funds invested in the first bidding rounds in order to place all the points and to get a stake in their preferred companies. This may be the reason why the average number of points invested for the purchase of one share was higher in the first three rounds, and especially in round two.

The two foreign bank sponsored funds chose a strategy opposite that of YSE and PPF, namely to invest in the most expensive enterprises. Consequently, Zivnostenska Banka's fund has the lowest book value per voucher book. Taking into consideration that the two foreign bank sponsored funds also have private ownership patterns like YSE and PPF, and are also among the smaller funds in the analyzed set of funds, it can be argued that among the top ten funds neither size nor ownership pattern of the fund correlates with the investment strategy concerning cheap or expensive shares.

Choosing cheap *and* undervalued shares (shares with a high turn around potential) required more detailed information on companies than publicly available. It is thus not surprising that foreign bank sponsored funds faced considerable difficulties in opting for this strategy since they did not have enough insights into the economy of the country. Therefore, foreign bank sponsored funds generally invested in well-known and attractive companies with high export potential and strategic owners. Foreign bank sponsored funds consequently spent more points per share than other funds.

Foreign bank sponsored funds also preferred to invest in industries that required less research and screening of individual company information. Suitable enterprises can be identified in non-cyclical industries such as food, and in sectors that were expected to grow early, such as construction. Table 7 shows three different types of industries: First, relatively attractive industries like food and construction, second, monopolistic and oligopolistic industries like the financial sector and energy, and third, difficult industries like machinery, engineering, and heavy industry which require more screening of firm specific information). While many funds carried out extensive interviews with companies some foreign bank sponsored funds expressed misgivings about this approach since accounting standards were still poor.

Funds are also very distinctive with regard to investments in financial institutions. While it was prohibited for an investment fund established by a bank to invest in bank shares, there are different interpretations of whether that also applied to funds which were founded by management companies that were subsidiaries of the banks[15]. Technically, banks did not themselves establish the fund since funds are only their grandchildren. Thus, many domestic bank sponsored funds invested in bank shares and even in shares of their management company's banking parent. As a consequence, investments of domestic bank sponsored funds in financial institutions led to considerable cross-ownership among banks[16].

It is interesting that foreign bank sponsored funds were more cautious with regard to the interpretation of the law, and avoided investing in financial institutions. Non-bank funds and domestic bank sponsored funds, however, considered investments in the financial sector to be attractive. Harvard Capital & Consulting (HCC), a non-bank fund, stated that it favored investments in companies that had a predominant position in the market due to their role in the former command economy. The financial sector can be regarded as an

[15] See Law No. 248/1992, Section 24 (11). An English translation can be found in: Financial Services Legislation (provided by Trade Links, 1994).

[16] See Mejstrik (1994, 14-17). Some bank funds even bought considerable stakes in the sponsoring bank. An extreme example are the funds of Investicni Banka which hold 17% of the shares of the banking parent. See also section on 'the relationship between banks and investment funds' below.

oligopolistic market[17]. Another monopolistic sector, preferred by domestic funds is energy. HCC invested more than 70% of its voucher points in these two sectors.

Table 7: Fund's investment in different industries

Fund category	domestic bank sponsored					foreign bank spons.		non-bank funds		
Fund group	CS	IB	KB	CP	AB	CA	ZB	HCC	PPF	YSE
Food/consumer goods	26	16	9	**23**	n/a	**30**	**40**	8	30	2
Construction 1/	14	0	8	2	n/a	**30**	**17**	3	15	5
Financial institutions	**15**	**50**	**22**	**14**	n/a	0	0	**50**	0	**43**
Energy	**19**	**10**	**19**	**7**	n/a	0	0	**23**	5	**10**
Machinery/engineering	12	9	11	21	n/a	16	7	0	**35**	6

1/ including construction materials.
Remark: for fund names and fund classification see Table 3. Bold figures represent significant investments.
Source: Fund interviews.

Since domestic banks had more information on individual companies than most other market participants, funds of this type also invested in more 'difficult' industries like machinery, engineering and heavy industry (between 9 and 21% of their voucher points). Surprisingly, the non-bank fund PPF courageously invested considerably in this industry.

Table 8: Diversification of fund's portfolio (June 30, 1994)

	HCC	ZB	CA	YSE	PPF	AB	CP	[illegible]	KB	CS
Number of companies	46	50	72	126	186	215	241	320	245	476
Asset value of top ten companies 1/	77	60	63	70	54	25	42	44	49	28
Fund category 2/	NB	FB	FB	NB	NB	DB	DB	DB	DB	DB

1/ in % of asset value of total portfolio (at market prices).
2/ NB=non-bank; DB=domestic bank sponsored; FB=foreign bank sponsored.
Remark: for fund names see Table 3.
Source: Fund interviews.

[17] Ceska Sporitelna, the Czech Savings Bank, holds 40% of the savings in the country and the big commercial banks, Komercni Banka and Investicni Banka, hold significant portfolios of enterprise credit.

One of the objectives of an investment fund is to provide a diversified portfolio. There is a wide range of interpretation as to what 'diversified' really means. At the end of 1992, the number of portfolio companies in the set of top ten funds ranged from 51 (Harvard) to 514 (Ceska Sporitelna). Table 8 shows portfolio diversification in mid-1994 with domestic bank sponsored funds tending to have more diversified portfolios than the other two fund types. Apart from the number of companies in the portfolio there is another important variable that characterizes the diversification of risk in a portfolio, namely the degree of concentration. Looking at the net asset value[18] of the top ten portfolio companies in relation to the total asset value of a portfolio, one can see that foreign bank sponsored and non-bank funds allocated a greater share of their investments on the top ten portfolio companies (between 54 and 77%) than domestic bank sponsored funds, which tended to spread investments more evenly among the portfolio companies. Table 8 shows that among domestic bank sponsored funds the top ten companies only account for between 25 and 49% of the asset value of the portfolio[19].

6. Fund performance

The general public thought investment funds to be better able to choose attractive companies in the bidding rounds than individuals, and that this was one of the reasons for the success of IPFs in voucher privatization. Did funds really perform better in that respect? One would want to compare the net asset value per voucher book of an average investment fund with the net asset value of an investment carried out by an individual citizen. However, such an analysis is impossible at this time. On average, individuals invested in the cheaper shares (compare Table 5), which could be expected to be, at least to a certain degree, shares of low liquidity. This point is important since the shares of about one-third of the companies involved in the voucher process have not yet been traded. Thus,

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[18] While the book value represents an 'accounting value', the net asset value is based on market prices.

[19] See also chapter on "the relationship between banks and funds" below.

it is difficult to determine 'market prices' for such shares. Taken by itself, the net asset value of an average individual investment portfolio could be very misleading. Although it might be difficult to form an 'average individual portfolio' at the current moment or in the future[20], a comparison between fund and individual performance could be attempted at a later time when more market liquidity is attained.

How did the top ten funds perform since the beginning of their activity in 1992 until June 30, 1994? In general, the non-bank – and to a lesser extent the foreign bank sponsored – funds outperformed the domestic bank sponsored funds. The net asset value of the portfolio (at market prices, per voucher book invested) of the most successful fund is more than twice that of the least successful fund in this survey. In other words, shares owned by domestic bank sponsored funds are relatively cheaper than shares of funds that belong to the other two fund categories. In the group of domestic bank sponsored funds, the funds of Investicni Banka seem to have attained the best result, perhaps largely due to the fact that this fund invested strongly in the financial sector and energy (compare Table 7)[21]. After trading started on the stock exchange share prices of banks and energy companies have increased faster than the market average.

Table 9: Rank of funds by net asset value per voucher book on June 30, 1994 (in CZK)

YSE	HCC	IB	PPF	ZB	CA	KB	CS	AB	CP
47,620	37,000	34,770	33,080	28,950	28,460	26,640	23,680	21,330	20,760

Remark: for fund names and fund classification see Table 3.
Source: Fund interviews.

[20] From a global data source, share ownership of individuals is only known after the five bidding rounds. Since then, many individuals sold their shares on the stock exchange (either to funds, strategic investors or other individuals). For a more precise assessment of individual ownership today, the ownership structure of all participating enterprises would have to be analyzed.

[21] There is some doubt on the prices used to calculate the net asset value of this fund in particular, but also of funds in general because the shares of many companies have never been traded or trading took place only rarely or in fairly low volume. Some funds evaluate shares that have not been traded by their book value, which is misleading since the 'real' price would be far below.

7. Discount to net asset value

One of the most surprising aspects in the analysis of voucher fund shares[22] has been the strong discount of the fund share price in relation to the net asset value of the fund's portfolio per share. Table 10 shows that the discount to net asset value amounts to between 20-80%, which is far larger than Western or emerging market closed-end funds. One explanation for the discounts is the low liquidity of the market reflecting the difficulty of a fund in actually liquidating its portfolio. Taking the discount of fund shares into account, the IPFs offering the greatest market value per voucher book invested, are Creditanstalt and YSE. The funds with the lowest discounts are the foreign bank sponsored funds (Creditanstalt and Zivnostenska Banka), which might reflect confidence of the market in the management capability of this fund category. A lower discount could be a sign that the market perceives this fund to be a better monitor of enterprises. What is surprising, however, is, that most non-bank funds (like PPF and Harvard) have the strongest discounts. Confidence of the market in the fund therefore seems not to be the only explanation for a higher or lower discount. Other aspects seem to have played a role.

One factor explaining higher or lower discounts may be that IPFs promised to buy back fund shares from their investors for a certain price after one year. It can be seen that the funds with the highest discounts are the funds that made promises to their investors, whereas funds that made no promises have lower discounts (see Table 10). This observation could be explained as follows: the promises were between 10 to 15 times the amount each citizen had to pay for a voucher book (CSK1,000). If one looks at the overall book value of shares privatized in the first wave, every citizen participating in the process received on average 32 shares (with a book value of CSK32,000). This is an indication why the promise of Harvard fund to buy back a voucher book for ten times its initial price of CSK1,000 was perhaps not as extraordinary as it first sounded, although it was quite

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[22] Fund shares are the shares issued by the fund (and owned by the former voucher holders), while shares of portfolio companies are the shares owned by the fund.

uncertain at the time how the price of an average share with a book value of CSK1,000 would develop.

Table 10: Rank of funds by discounts of fund shares (as of June 30, 1994)

	PPF	HCC	IB	CP	AB	YSE	CS	KB	ZB	CA
Discount 1/	78	72	72	62	58	56	53	51	37	28
Market value 2/	7.3	10.4	9.6	8.0	9.0	21.0	11.0	13.3	18.0	21.0
buy back promise 3/	11.0	10.3	11.0	15.0	n/a	-	12.0	-	-	-

1/ Discount of fund share in relation to net asset value per fund share
2/ Market value of investment [in 1,000 CZK] (= fund share price x number of fund shares per voucher book)
3/ Promise to buy back fund shares [in 1,000 CZK] (per voucher book). "-" means that fund gave no buy back promise.
Remark: for fund names and fund classification see Table 3. Source: Fund interviews.

How did Czech share prices develop after privatization? The total market capitalization in the Czech Republic in June 30, 1994 was estimated at $12.3 billion (Creditanstalt, 1994). It should be noted that around one-third of the companies involved in the first wave have not been traded even once and another third is rarely traded. Therefore it is difficult to say what 'market capitalization' really means. If one assumes that the above-stated figure mainly reflects the value of the two-thirds of regularly and occasionally traded shares, which is then divided over the number of outstanding shares (which includes rarely and non-traded shares), the average value of a Czech share is still far above the book value of CSK1,000[23]. Thus, the average market value of a voucher book is far greater than the buy back guarantees of some funds. This might explain why the promise of voucher funds in that price range may have created an upper ceiling for the price of a fund share. There are two interpretations for this upper ceiling. First, market participants might consider the 'price' that was indicated by a fund itself as the 'real market price', i. e. the perception of what the price should be. A second interpretation might be that funds buying back their fund shares and selling them again on the secondary market create some kind of excess supply of their own shares. Since many fund shares are quoted at high discounts, buying back fund shares

[23] The average value of a share at this point of time can be estimated at around CZK1,700.

from voucher investors might be a profitable business for a fund in the medium[24] term since a fund (or its sponsor) is buying a share with an underlying net asset value two to four times higher. This explains why funds (or sponsors) that provide cash for their fund shares would rather hold them under the current situation than sell them on the secondary market. Therefore the first interpretation of an upper ceiling seems to offer the most convincing explanation: the buy back guarantee was perceived 'the fair market price' which resulted in high discounts to net asset value for shares of funds making promises to their investors.

The biggest divergence between the market value of an invested voucher book and the buy back promise of the sponsor is for the fund established by Ceska Pojistovna, the Czech Insurance Company. The fund's share is quoted at only half the price at the stock exchange in comparison to the guaranteed buy back price. This was the reason why half of the investors in Ceska Pojistovna's fund have used their option to redeem their fund shares for cash, far more than investors of other funds.

8. Funds and corporate governance

Spending many points on one single enterprise does not necessarily mean that a fund has got a high stake in a given enterprise. It could also mean that the fund invested in the big companies (that issued more shares than small companies). In order to assess a fund's ability to control portfolio enterprises, one would have to analyze the number of companies in the portfolio, in which the fund owns a *significant* or *controlling* stake. In this study, a *significant* stake is defined as more than 10% of outstanding share, which is the proportion funds are generally given a seat on the governing boards of the company. Many funds,

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[24] The validity of this statement is of course dependent on a higher liquidity of the stock market for the fund being able to liquidate its portfolio.

however, were able to get a seat on the board with an ownership share below 10%[25]. A *controlling* stake is defined here as above 18% (and up to 20%) of a company's capital[26].

Table 11: Rank of IPFs by number of companies with > 10% in capital (in % of total number of companies in portfolio) at December 31, 1992 (June 30, 1994)

HCC	IB	CS	YSE	PPF	KB	CA	CP	ZB	AB
86 (84)	67 (51)	53 (47)	42 (n/a)	n/a (34)	33 (n/a)	31 (32)	30 (37)	20 (20)	17 (20)

Remark: for fund names and fund classification see Table 3.
Source: Fund interviews.

Table 12: Rank of IPFs by number of companies with > 18% in capital (in % of total number of companies in portfolio) at December 31, 1992 (June 30, 1994)

HCC	IB	PPF	YSE	CS	CA	KB	CP	AB	ZB
65 (56)	32 (25)	n/a (14)	11 (n/a)	9 (11)	8 (8)	7 (n/a)	5 (5)	4 (5)	0 (0)

Remark: for fund names and fund classification see Table 3.
Source: Fund interviews.

Table 11 and Table 12 show a great diversity in funds' portfolio concentration. Harvard's portfolio is by far the most concentrated, since the fund owns a significant stake in 86% of its companies and a controlling stake in 65% of its companies. What is surprising is the fund sponsored by Ceska Sporitelna, the Czech Savings bank, which is by far the biggest fund in the first wave. This fund is often blamed for having invested in a diversified portfolio with over 500 companies and being unable to exert any influence over them. On the one hand, the criticism is justified to the extent that Ceska Sporitelna could have achieved portfolio diversification by investing in only half the number of enterprises. On the other hand – due to the upper limit of 20% per enterprise – Sporitelna was forced to diversify in a large number of enterprises since it received so many points. Still, Sporitelna is not performing so badly with respect to its potential influence on portfolio enterprises

[25] See chapter on 'the relationship between banks and investment funds' below.

[26] The level of 18% (instead of 20%) had been chosen since - due to the process of the bidding rounds - funds (even bidding for 20%) received in the end stakes that were slightly below this number.

since it owns a significant stake in more than half of its companies and a controlling stake in 9% of its companies. This situates Sporitelna ahead of the two foreign bank sponsored funds – Creditanstalt and Zivnostenska Banka. In fact, Zivnostenska Banka does not have a controlling stake in a single company. In general, however, in the set of top ten funds, the non-bank funds opted most often for concentrated portfolios, a precondition for any corporate governance action.

For the most part, IPFs have kept the portfolio they acquired through the five bidding rounds with no major changes in the portfolio, at least in the funds analyzed here[27]. In the fund interviews most of them reported that the predominant activity between end-1992 and mid-1994 can be seen as portfolio clearing. This means that most funds sold shareholdings of enterprises in which they held only a small stake, because there was a strategic investor or because the share price seemed to be 'unusually high'. Table 13 analyzes portfolio clearing by looking at the decrease or increase in number of companies in the portfolios. Most funds across all three fund categories tried to focus their activity on a smaller number of companies by decreasing the number of portfolio companies. Again, some non-bank funds (Harvard and PPF) and the foreign bank sponsored fund from Creditanstalt showed the greatest interest in further reducing the number of companies in the portfolio.

Table 13: Rank of IPFs by change in number of companies in portfolio between December 31, 1992 and June 30, 1994 (in %)

CA	AB	KB	PPF	CP	CS	YSE	HCC	ZB	IB
-23	-16	-8	-8	-8	-7	-5	-2	9	20

Remark: for fund names and fund classification see Table 3.
Source: Fund interviews.

Since owners can be represented in companies in which they own less than 10% of a firm's capital, a more precise indicator of the relationship between owners and company would be the number of companies in which the fund is represented on the board in relation to the

[27] One of the reasons for this is the low liquidity of the market; see Jaros and Sanders (1994, 9).

number of companies the fund holds (which is shown in Table 14). However, this figure does not reflect the quality of board representation, i.e. the number of seats or the number of votes on the board. The most important result shown in Table 14 is that funds in all three fund categories are represented in at least half of their portfolio enterprises. This underlines the basic difference between voucher funds in the Czech Republic and U.S. type pension funds or French investment funds (SICAV), which are generally not represented on governing boards of portfolio companies. Thus, investment funds in the Czech Republic can act as corporate monitors by screening non-public information.

Table 14: Rank of IPFs by number of representations (in % of number of companies in portfolio)

CA	HCC	ZB	YSE	CP	PPF	CS	KB	IB	AB
83	80	72	67	66	65	59	53	50	n/a
FB	NB	FB	NB	DB	NB	DB	DB	DB	DB

Fund categories: DB=domestic bank sponsored; FB=foreign bank sponsored; NB=non-bank.
Remark: for fund names see Table 3.
Source: Fund interviews.

Despite this general rule, however, Czech funds differ considerably regarding their governance role. One can see that the non-bank and foreign bank sponsored funds seek as many representations as possible whereas some of the domestic bank sponsored funds showed a relatively less strong desire. One fund showing an unusually strong desire to be represented on company boards is the IPF from Zivnostenska Banka. Although the fund owns 10% or more of a firm's capital in only 20% of its companies, the fund is represented on the boards of 72% of the companies it owns.

Most Czech corporations are legally set up following the German-type dual board system consisting of separate management and supervisory boards. In a dual board system owners are represented on the supervisory board and are charged with appointing management and deciding on major changes in the corporation. The management board meets more often to carry out day-to-day decisions. However, there is a general reluctance in the Czech

Republic to follow this rule. Since management boards meet more often, major owners try to get better and more frequent information by being represented on the management board. The top ten funds preferred to sit on the management board in between 50 and 90% of all board representations (see Table 15), showing that funds try to play an active role in enterprise management and corporate control.

Table 15: Rank of IPFs by number of representations on management boards (in % of all representations in companies)

HCC	CS	ZB	IB	CP	PPF	KB	CA	YSE	AB
90	82	80	77	74	73	66	60	50	50
Remark: for fund names and fund classification see Table 3.									

One of the most important rights of any major shareholder is the right to replace the management if it seems to be necessary. Since the predominant goal of a privatization process is to change the governance structure of firms, changing the incumbent management may be considered a sign of proactive behavior on the part of shareholders. Nevertheless, the data shown in Table 16 on this issue should be taken with some caution since there is not a consistent understanding of what "change of management" really means: did the entire board or only some managers have to leave? Were managers replaced because the owners fired them or was it due to natural fluctuation? Many funds were reluctant to answer this question. The reason might be that some funds do not want to become associated with 'unsocial behavior'. In any case, a single fund could not take the decision to replace the management on its own. Even some domestic bank sponsored funds have taken action to replace management even though they are blamed for being affiliated with banks that are still partly state-owned. Non-bank funds, like YSE, however, seem to be more proactive in firing the incumbent management.

Another concern in the study was the affiliation of the fund management company's staff serving as directors on boards of the fund's portfolio companies. In most cases the decision to appoint directors is taken on the level of the management company. However, not all directors are directly employed by the management company, and in fact most of the bank sponsored funds rely on employees from the mother bank (see Table 17). The use of bank staff gives an indication of the close relationship between both banks and their management company and between banks and enterprises.

Table 16: Rank of IPFs by percentage of companies in portfolio in which the management has been changed

YSE	CP	CA	KB	AB	PPF	ZB	HCC	CS	IB
70 (partly)	10	5	4	4	3	2	n/a	n/a	n/a

Remark: for fund names and fund classification see Table 3.
Source: Fund interviews.

Table 17: Affiliation of staff to serve as director for board representation (number of people)

Fund type	domestic bank sponsored					foreign bank sponsored		non-bank funds		
Fund name	CS	IB	KB	CP	AB	CA	ZB	HCC	PPF	YSE
Management company	85	20	23	20	32	9	7	20	16	15
Banking parent	**0**	**45**	**4**	**69**	**54**	**1**	**16**	**0**	**0**	**0**
External consultants	10	0	41	18	50	5	0	1	80	50
TOTAL	95	65	68	107	136	15	23	21	96	65

Remark: for fund names and fund classification see Table 3.
Source: Fund interviews.

While bank staff serving as directors on boards of portfolio companies can be regarded as a "formal" indication of the close relationship between the sponsoring bank and its management company, this relationship is also characterized by "informal" links. In interviews, many management companies owned by banks reported that joint screening of enterprise information was rather frequent during the voucher bidding process. One exception in the group of domestic bank sponsored funds – at least as far as the "formal" relationship is concerned – is SIS, the management company of Ceska Sporitelna (CS).

This management company relies mainly on its own staff, as the only one in that fund category using no employees from the mother bank[28].

In the group of foreign bank sponsored funds one can observe different policies: Whereas ZB-Trust, the management company of Zivnostenska Banka, heavily relies on employees from the sponsoring bank to serve as directors, this approach seems to be the exception for Creditanstalt. The difference in the relationship between the bank and the management company of the two foreign bank sponsored funds can also be observed in their different portfolio selection approach. For the reasons mentioned above, Creditanstalt did not carry out company interviews to select enterprises. ZB-Trust, however, reported extensive talks with enterprises they considered for potential investment. Since Zivnostenska Banka is a former Czech bank with a strategic Western investor, this behavior might reflect the desire to build on the local market knowledge by integrating bank staff in the portfolio selection and the enterprise monitoring process.

9. The relationship between banks and investment funds

The relationship between funds and banks is one of the most salient features of Czech privatization, and is important in assessing the role of banks in corporate governance. Seven out of the ten analyzed funds are affiliated to banks (both domestic and foreign banks). These seven bank affiliated funds have acquired 47% of all vouchers transferred to funds (compare Table 2). The ten biggest financial institutions in the Czech and Slovak Republics account for about 43% of all voucher points and 60% of the voucher points acquired by all investment funds, illustrating that banks play an important role in Czech voucher privatization. Although these seven funds are, as all other funds, owned by many former voucher holders, these funds are defined as 'bank affiliated' since the management company of these funds is a direct subsidiary of a bank. The relationship between banks and investment funds leads to a combination of debt and equity finance since banks could

[28] See next chapter on "the relationship between banks and investment funds".

provide loans to enterprises which are part of the portfolio of the affiliated investment funds.

Investment funds were often criticized of being weak owners since they lack the ability to provide additional financing. However, this is only one perspective on the issue. To withhold financing might be even more important in a case where external owners do not agree with the plans of management. In such a case, where a bank sponsored fund was convinced that a portfolio company required additional finance, the fund's management company could still overcome informational asymmetries in capital markets by asking the banking parent to provide the resources since the fund's management company, if represented on the board of the portfolio company, has got better information on the company than any other external owner.

This relationship between funds as owners and its sponsors (in the form of banks providing finance) is often seen as a conflict of interest: Some analysts argue that the predominant interest of banks is not to found investment companies that restructure the enterprises, but to gain access to lending opportunities[29]. This view assumes that banks are unable to find enterprises to which they could provide finance even though they have a desire to do so. This perception of financial markets in Central Europe is rather misleading, because in the countries in transition, the contrary seems to be the case due to a general reluctance of banks to provide finance[30] to the enterprise sector. Due to distorted incentives under former

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[29] A possible conflict of interest results from the fact that banks could receive information from the management company to be used for loan negotiations with a company the fund holds. For the management company, maximization of the fund's value is not necessarily the predominant goal. If one takes the profit of a portfolio company as given, the directors could try to impose a higher interest rate on a loan given by the sponsoring bank. This means that a bank could take advantage for lending opportunities by being represented on boards via their affiliated management companies at the expense of the fund's value. Whether this represents a conflict of interest in reality is unclear, and relates to the continual discussion of German type versus Anglo-American monitoring systems of firms. Funds are actually not bank owned but somehow bank affiliated. This is the reason why the situation of IPFs does not entirely fit in one or the other monitoring mechanisms mentioned above. For an analysis on this issue see also Dittus and Prowse (1994); on conflicts of interest see especially p. 9.

[30] see, for example, Drabek (1993, 26).

central planning, the overall economic environment is rather uncertain and in permanent flux, and the external evaluation of enterprise restructuring plans is difficult and costly. Therefore many potential bank loans face a relatively high risk-return ratio[31]. If banks fully included the transaction costs, which result from extensive information screening, interest rates and therefore financial cost would become too high. In this environment many externally financed investment projects might become unprofitable and restructuring would not take place to a sufficient degree.

Another concern has been the considerable cross-ownership among banks and their affiliated investment funds[32] in the Czech and Slovak Republics. Many of the banks were partly privatized in the first wave of privatization with remaining shares still held by the state. Domestic bank sponsored funds often hold minority stakes in other banks and sometimes even stakes in its management company's mother bank (see Table 18). There is a high degree of concentration in banking in transitional economies leading to limited competition among banks. Thus, cross ownership among banks limits banking competition even more and should therefore be of concern for policy makers[33].

Table 18: Cross ownership in the banking sector in the Czech and Slovak Republics

	CS	IB	KB	CP	VUB	SIB 1/	SP 2/
Share privatized through vouchers	37	52	53	65	52	52	48
Share held by domestic bank sponsored funds	16	32	26	7	35	23	20
Share held by the affiliated fund	0	17	3	1	11	19	5

1/ Slovak Investicni Banka (Slovak Investment Bank).
2/ Slovak Pojistovna (Slovak Insurance Company).
Note: For other bank names see Table 3. Source: Mejstrik (1994).

The role of financial intermediaries as corporate monitors is also influenced at a macro level. In other Central and Eastern European countries with high budget deficits banks

[31] For a more detailed discussion of this issue see Dittus (1994).

[32] On cross ownership in Czech privatization see also Coffee (1994, 22).

[33] See footnote 15 and adjoining text.

prefer to buy government bonds instead of giving loans to the enterprise sector ("crowding out"). In such an environment, low information costs about the profitability of a firm's investment plans are even more important. The decrease of information asymmetries between insiders of the enterprise and outsiders in the form of banks are key in providing additional external finance to enterprises to enable restructuring[34]. Corporate governance cannot only be exerted by shareholders, but also through debt instruments, for example, in form of additional bank loans or a reduction of lending[35]. However, in the Czech case, the equity control mechanism – namely funds' monitoring on enterprise boards – would enable additional debt finance. The distinction between equity and debt control is less important than the underlying control mechanism of finance[36]. The bottom line is that the observed close relationship between a domestic bank sponsored fund and its affiliated banking parent can be regarded as an additional step to overcome information asymmetries in premature capital markets and towards stronger governance of firms[37].

In what way did banks try to get involved in corporate decision making? As mentioned above, domestic bank sponsored funds invested in a much larger number of enterprises than foreign bank sponsored and non-bank funds. In the interviews, some management companies of domestic bank sponsored funds indicated, that they intended to invest in a much smaller number of companies but the sponsoring bank influenced the decision to develop a more diversified portfolio. Table 19 shows that domestic bank sponsored funds tried to get as many representations on the boards of portfolio companies as possible. Foreign bank sponsored and non-bank funds concentrated their actual influence on a smaller number of companies[38]. The evidence suggests that the predominant reason for

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[34] Due to a fairly stable state budget there is no crowding out effect in the Czech Republic.

[35] Another form of governance can be exerted via product markets. A precondition for this type of control are unregulated competitive markets.

[36] For a distinction between control oriented and arms'-length finance see Berglöf (1995).

[37] An empirical analysis about corporate control of banks is carried out in Cable (1985).

[38] As it has been mentioned above, the number of companies where the fund is represented in relation to the total number of companies in the portfolio is generally higher for foreign bank sponsored and non bank funds than for domestic bank sponsored funds (see Table 14).

domestic banks to be involved in the investment fund business is to develop closer relationships with existing or potential customers. This may reflect the desire of a domestic bank to have better information and exert control on companies in which they hold debt and to secure representation of at least one seat in a larger number of companies instead of a controlling 20% stake in a smaller number of companies.

Table 19: Number of companies in which the fund is represented on the board

	CS	IB	CP	KB	AB	PPF	YSE	CA	HCC	ZB
Fund category 1/	DB	DB	DB	DB	DB	NB	DB	FB	NB	FB
Board representations	333	240	162	138	136	88	60	60	37	36

1/ DB=domestic bank sponsored; FB=foreign bank sponsored; NB=non-bank.
Remark: for fund names see Table 3.
Source: Mejstrik (1994)

Although banks are not actually direct owners of companies, they were able to decrease information asymmetries by increasing their governance options. After the creation of a two tier banking system, commercial banks have held most of the outstanding corporate debt. The introduction of a market economy meant that a large number of firms had suddenly become unprofitable and some might not be able to survive. As court-led bankruptcy procedures were poorly developed and the overall economic and legal environment still rather uncertain, banks were likely to experience increasing difficulty in controlling their loan portfolios. After voucher privatization, banks used indirect equity control to monitor firms[39]. Increased corporate governance of banks helped to reduce information asymmetries between enterprises and outside suppliers of financing, reducing the risk of potential failure of both the outstanding loan portfolio and new lending activities. Although the corporate control efficiency of domestic bank sponsored funds might be lower than for funds of the other two categories, the close relationship resulting from banks being represented on boards of portfolio companies has led to significant external monitoring in many Czech firms.

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[39] In the German bank based system the feature is slightly different. Banks can hold equity stakes in companies and may increase their influence by using proxy votes from small shareholders.

Given the relationship between banks and funds, it is less surprising that SIS, the management company from Ceska Sporitelna, does not use bank staff to serve as directors on boards of companies the fund owns (see above). Ceska Sporitelna, the Czech Savings Bank, is one of the biggest financial institutions in the Czech Republic. While the bank holds about half of the country's primary deposits, Ceska Sporitelna lends a rather small share of its assets to the enterprise sector. Ceska Sporitelna is the predominant net lender on the Czech interbank market because the bank has easy access to cheap resources and has relatively little problems with bad loan portfolios. This is very much in contrast to other big financial institutions in the Czech Republic such as Komercni and Investicni Banka which hold 30% and 13% of total credit to the non-government sector respectively. This might explain why Ceska Sporitelna is under relatively less pressure to monitor enterprises with its own staff. The 'informal links' between the bank and the management company seem to be sufficient.

To sum up, the close relationship between banks and investment funds is a spontaneous development of Czech privatization which seems to go hand in hand with hardening budget constraints in both the enterprise and the financial sector.

10. Legal framework for voucher funds in the Czech Republic

In the Czech Republic, the emergence of funds began with the establishment of management companies[40]. Management companies were established to carry out investment decisions on investment funds in exchange for a fee[41]. In the first wave of privatization, both management companies and investment funds had to be set up as legal persons: a management company could be organized as a joint stock company or a limited liability company, whereas an investment fund was required to have the legal form of a

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[40] The expression 'management company' refers to the Czech term 'investicni spolecnost' (i.e. investment company) that each management company had to include in its business name.

[41] Fees charged by the management company for the administration of a fund's assets may not exceed two percent of the average value of a fund's portfolio or 20% of a fund's profit.

joint stock company[42]. Some management companies were created by a financial institution (sponsor) and investment funds are therefore considered as 'bank affiliated'.

In the second wave of Czech privatization, however, investment funds could be set up as joint stock companies or unit trusts. In contrast to a fund organized as a joint stock company, a unit trust is not a separate legal entity, and may be organized either as open-end or closed-end funds. Thus, management companies in the second wave of privatization in the Czech Republic had the possibility to choose among three legal options to set up a fund (see Table 20).

Open-end funds must ensure enough liquidity to enable the redemption of investment fund shares for cash. Due to the illiquidity of most emerging stock markets in Central and Eastern Europe, however, this would limit the ability of a fund to play an important role in corporate restructuring. Unit trusts should therefore either be set up as closed-end funds or as open-end funds with a restriction to redeem shares during an initial period (Blommestein and Spencer, 1993, 28).

Table 20: Legal form of investment funds in the second wave in the Czech Republic

Legal set up as:	joint stock company	closed-end unit trust	open-end unit trust	TOTAL
Number of funds	195	38	120	353
Number of points	1,570	870	1,480	3,920
Source: Mejstrik (1994).				

Organized as a joint stock company, a fund has its own boards (management and supervisory board) and must have an annual shareholder meeting. Many management companies felt that annual shareholder meetings are costly, but do not offer real influence to shareholders in annual meetings since the ownership of an investment fund is widely

[42] In Czech the term 'investicni fond' is only used for funds having a legal person (organized as a joint stock company). This is the reason why the designation 'investicni fond' has to be included in the business name of a fund organized as a joint stock company.

dispersed among the population. During fund interviews, representatives of management companies argued that shareholders of funds (former voucher holders) would probably receive higher dividends if funds were organized as unit trusts, since expenses are lower. The important point is, however, that investors would loose their voting right under this legal form (see Table 21).

Table 20 shows that many funds were set up as unit trusts in the second wave. Funds under this legal form were able to acquire more points than funds organized as joint stock companies. However, there is some doubt as to whether this is really due to the legal form. Ultimately, it can be argued that exerting influence on the fund through voting rights seems to be less important for investors participating in the voucher process. This development is rather surprising because shareholder voting rights were considered to be an important element of transparency of the voucher process: voucher holders that invest in funds become shareholders in funds with full voting rights (like individual investors). By having a full voting right shareholders have – at least in theory – the ability to influence the management company or even cancel the contract with the management company.

It is worth stating at this point that there was a considerable preference for open-end funds in the second wave. It may be due to the experience of the first wave after which shares of investment funds continue to be traded at high discounts to their net asset value. Investors therefore faced considerable difficulties in exchanging fund shares for the market price of underlying assets. Thus, the option of redeeming shares at the management company for the full value of the portfolio in cash was a critical factor for many investors in their decision about where to put their investment points. This proved to be true despite the fact that management companies offering open-end unit trusts allowed redemption of fund shares only after a transitional period of two to three years. This could be interpreted as a belief by investors that stock markets could not become liquid enough to enable the exchange of fund shares on the secondary market for approximately the value of the underlying assets.

Table 21: Types of funds used for voucher privatization in the Czech and Slovak Republics

Criteria	Joint stock company	Closed-end unit trust	Open-end unit trust
Legal set-up	Fund has its own legal entity with own governance boards	Fund has no legal entity	Fund has no legal entity
Type of security sold	share	fund certificate	fund certificate
Security is held by	shareholder	investor	investor
Voting right	full voting right 1/	no voting right	no voting right
Capital	capital is limited to number of points invested in the fund (plus some cash); shareholders can decide on capital increase	capital is limited to number of points invested in the fund	capital is variable
Fungibility	shares can only be sold on secondary market	certificates cannot be exchanged at the fund; they can be sold only on the secondary market	fund has to exchange certificates against cash
Administrative cost	relatively high cost for organizing shareholder meetings for small shareholders	lower cost than shareholder investment fund, possibility for higher dividends	lower cost than shareholder investment fund, possibility for higher dividends

1/ in case of voting shares; shares can also be issued as non-voting shares, but they still remain shares, in contrast to fund certificates.

Related Laws in the Czech and Slovak Republics: Law No. 248 of May 29, 1992 about investment companies and investment funds; Law No. 591 of November 20, 1992 on securities (bonds and shares), Law No. 513 of January 1, 1992 (Commercial Code). See Trade Links (1994).

11. Investment funds and privatization – Conclusions

Surely the lesson to be learned from the analysis is that investment funds in the Czech Republic will be the predominant institutional players in equity control of privatized firms. The survey in the Czech Republic shows that investment funds developed important steps to become external monitors of firms.

Looking at investment funds by different fund category, one can observe that foreign bank sponsored funds and non-bank funds tend to have more concentrated portfolios. Monitoring of firms by these two fund types should therefore be relatively stringent compared to domestic bank sponsored funds. In addition, one can see that shares owned by foreign bank sponsored and non-bank funds performed better than shares owned by domestic bank sponsored funds.

However, it would be highly misleading to conclude that domestic bank sponsored funds have a less important role to play in the post-privatization period. Rather, the opposite conclusion should be drawn because domestic bank sponsored funds are represented on the boards of considerably more companies than foreign bank sponsored and non-bank funds. Banks tried to establish closer customer relationships by being represented in as many companies of affiliated investment funds. The creation of bank sponsored investment funds can be regarded as a spontaneous institutional arrangement that emerged in an economy of increasing uncertainty since the state was withdrawing more and more from the economy[43]. The survey of the top ten funds in the Czech Republic shows a widespread use of bank staff to serve as directors on boards of companies owned by domestic bank sponsored funds. Continuous bank monitoring on the boards of enterprises generally results in decreasing information asymmetries between banks and enterprises. Therefore, the Czech system of corporate governance is to a large extent characterized by a bank control-oriented monitoring process over enterprise restructuring. Banks control the equity of enterprises of

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[43] This situation is sometimes referred to as a 'corporate governance vacuum'; see Berglöf (1995).

affiliated funds although they are actually not the owner of enterprises. The resulting close relationship between banks and enterprises is a step in overcoming capital market imperfections in the form of considerable principal agent problems which can be found in many countries in transition. Moreover, this leads to more efficient loan portfolio evaluation, and to enterprise monitoring by external agents. The external control function of investment funds has to be stressed since it leads to the accessibility of corporate information and to more transparency about corporate performance. In short, investment funds in the Czech Republic have become predominant external owners resulting also in a lower default risk in connection with bank lending. Therefore, investment funds prove to be a helpful tool in reducing the overall risk of the financial system.

This is very much in contrast to developments of privatization and post-privatization in other Central European countries and Russia where companies are mainly under the control of insiders (Frydman et al., 1993, 172). In Poland, insider control comes mainly from the strong position of workers and labor unions, whereas in Hungary and Russia companies are mainly under the control of management. While Russian privatization is often associated with voucher privatization, the importance of the voucher scheme in the overall privatization strategy, as well as the environment it was implemented in, were very different from mass privatization in the Czech case. In Russia, it seems that the voucher scheme was not able to counterbalance the predominant position of management and workers (Boycko et al., 1994, 9). Due to the lack of transparency, insider-controlled companies face substantial difficulties in raising external finance. In the Czech Republic, however, the voucher scheme transferred most of the ownership rights to external owners. In addition, the emergence of bank sponsored investment funds helped to reduce the risk resulting from bad loan portfolios that banks inherited before they were privatized.

Reform experience in Central and Eastern Europe shows that the privatization of banks - which is crucial for the development of a sound financial system - must go hand in hand with mechanisms to cope with increased risk for investors in a post-privatization economy. In order to make corporate lending by banks effective, banks must develop ways to determine different levels of risk associated with different clients or projects. Since enterprises still have considerable difficulties in offering collateral in exchange for a bank loan or a corporate bond, banks will only engage in corporate lending if they have the ability to monitor the use of the loan. If this information screening process is too costly, banks will stay away from corporate lending.

There is a long ongoing discussion in the Western academic world about bank based versus market based financial systems. In the West both systems can work well as long as they provide transparency and maintain low transaction cost for corporate finance. Whether both systems will work in a country in transition which is characterized by capital market imperfections, considerable principal agent problems, and high transaction costs for external finance is less clear. Even in a country with a market based financial system like that of the United States, recent research shows that enterprises that have a bank actively monitoring the board face considerably fewer liquidity constraints for investment and restructuring than enterprises without this close relationship[44]. The evidence from the Czech Republic suggests that investment funds can contribute to overcome capital market imperfections in a transition economy.

It is worth mentioning that investment funds emerged and have been running without major involvement of the state. The findings on Czech voucher privatization underscore that an emerging market can develop its own mechanisms, permitting greater efficiency once the state has sent clear signals and established adequate incentives. Polish plans for voucher privatization, which are characterized by a much higher degree of government involvement in the activity of voucher funds compared to the Czech case, could lead to vicious loops. This possibility must be stressed, since there prevails a widespread tendency in reform policy for the government to set up new institutions and regulate them. In case of difficulties, people will always put pressure on the government, which will react by

[44] See Ramirez (1994). For a broader discussion on the issue see Hoshi, Kashyap, and Scharfstein (1990).

increasing involvement, resulting in misleading signals and to decreasing credibility of the reform process[45].

What is the role of investment funds in corporate governance following voucher privatization? In order to answer this question, one should first discuss what can be expected from funds as institutional players in equity markets. This relates to the question of how to address the problem of privatization in general and the voucher scheme in particular.

The voucher scheme is a two phase model. The first is a pure transfer of ownership (often related to 'paper privatization'). The quality of the new owner is of subordinate importance. What is more important is cutting the link between the state bureaucracy and firms and the introduction of hard budget constraints in enterprise decision making. The change of ownership to 'real' (strategic)[46] owners is carried out in a second phase. The key difference between the voucher scheme and classical approaches to privatization like direct sale (for example, in Hungary) is that the search for strategic owners in the voucher scheme is carried out between private entities, i.e. between potential strategic investors and investment funds or the stock exchange.

In classical privatization, however, the strategic investor has to negotiate with a state bureaucracy. The privatization experience in Hungary shows that this approach is very time consuming. Even in East Germany, which has considerable technical and financial support from the Western part of that country, this process took about four years. In addition, the political instability throughout Central Europe makes a gradual case-by-case sell-off of enterprises by a national holding company or privatization agency susceptible to lobbying for continuous subsidies, soft credits, corruption and fraud.

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[45] For a view against the government being an 'agent of change' see also van Wijnbergen (1993).

[46] Here a strategic owner is defined as an owner with a certain knowledge of the industry, bringing management capabilities, product technology and new capital to a company.

What should therefore be expected from investment funds in terms of corporate governance? Many authors argue that 'good' owners, such as strategic owners, should actually run the company putting external governance somehow on the same level with management. In other words, the classical distinction between the role of owners as principals and the management as agents becomes obsolete. Of course, acceptance of this argument means that investment funds will always perform poorly in corporate governance.

A better way of looking at this question is to evaluate funds by accepting them for what they are, namely, financial investors. Their monitoring ability can be stronger or weaker depending on the stake in a specific company. In order to make an assessment of the performance of voucher funds in corporate governance, the voucher scheme should be evaluated over its entire time horizon. From a shareholder perspective 'good' funds would be the ones selling their shares to strategic investors at a high price. In addition, funds should monitor their companies by pointing out to managers that external owners are interested in value maximization of the firm[47]. If the funds are dissatisfied with the incumbent management their task is to replace the management with a new one. The findings in this study show that Czech investment funds are strong enough to do so.

12. Policy implications

The findings suggest that in the Czech Republic investment funds do take a more important role in the governance of firms than one might have imagined at the beginning of the privatization process. However, the efficiency of corporate governance needs still to be improved. Two different developments come to mind. The first one relates to investment funds in particular, the second one relates to the market for ownership rights in general.

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[47] For a theoretical analysis of the insider problem in transitional economies see Berglöf (1995) or Frydman and Rapaczynski (1993).

First, funds could (and should) become stronger monitors. The activity of investment banking is a new business in countries in transition. Therefore the willingness and the capability of corporate governance of funds will improve because of the learning process. Stronger governance can also be expected to result from changes in the legal environment. Raising a fund's maximum ownership above 20% in a company would give funds additional incentives to stronger monitoring.

Second, stronger corporate governance could also be expected from funds (being financial investors) selling shares to strategic investors. At present, an assessment of the transfer of ownership from funds to potential strategic owners (either domestic or foreign) is rather difficult, if not impossible because trading of shares is estimated to be carried out at 50%-60% off-exchange in mid-1994 down from 90% in 1993[48]. Off-exchange trading is only being reported since 1995. Research in this area must wait until adequate data are available.

What remains to be done with regard to investment privatization funds? Two issues are important to further improve the efficiency and the transparency of their activity:

1) deregulation of limited fund ownership; and
2) stronger publication requirements for funds.

There is much debate on whether to raise or lower a fund's limit of 20% ownership in a company. However, it seems clear that by raising or even removing this ceiling, funds will have even greater incentive to monitor their portfolio companies. Under the current law, a majority vote in a given company requires at least three investment funds, limiting considerably the influence of a single fund. Another means of increasing a fund's monitoring ability would be to introduce proxy voting at the annual meeting of shareholders[49], further concentrating the dispersed ownership of individual shareholders.

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[48] Author's estimate based on various interviews with local brokers.

[49] For an empirical analysis on the influence of ownership patterns on the share price see Claessens (1995).

With regard to strengthening publication requirements, funds are at present still rather reluctant to publish information about their portfolios, in contrast to Western funds that use portfolio information as a marketing instrument resulting in greater confidence of investors. Because portfolio publication of funds generally lacks detailed information of the size of ownership in companies and net asset values are published without any external control on methods of calculation, it would be reasonable to assume that detailed information for market participants is the most efficient method to avoid bad surprises in a rapidly changing environment[50]. Therefore, it is suggested that funds provide detailed information on their portfolios at least every three months. How could that be enforced? One could consider a government agency to regulate funds. However, a self-regulatory organization might be more efficient since there is a high degree of competition among funds. Groups of dynamic funds could perhaps found an institution that publishes information on the participating funds. The ones that do not participate would face a negative reputation in the market and be considered 'outsiders'. Funds willing to participate in the self-regulatory organization could gain a comparative advantage from showing activities with greater transparency.

The findings in the survey suggest a review of the banking reform in Central and Eastern Europe may be necessary. Although the recapitalization of commercial banks is an important element in improving the banking system, this reform sets the wrong incentives when it is not parallel to bank privatization. Without shifting bank ownership from the state to private individuals, recapitalization will fail since the governments can not credibly rule out the possibility of future recapitalization. This moral hazard problem has been particularly apparent in Hungary where the commercial banks have been recapitalized several times (incurring considerable cost for the state budget) without changing the underlying incentive structure under which banks operate[51].

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[50] This relates to the question: how could the crisis with regard to the Russian investment fund MMM have been avoided?

[51] See also Borish et al. (1995), and van Wijnbergen (1993).

By contrast, one of the most important features of Czech privatization was to introduce hard budget constraints in both the commercial and the financial sectors by privatizing state banks and firms simultaneously. In former centrally planned economies, state-owned banks acted as accounting offices for directed loan programs of the government and the central bank. There is a crucial relationship between restructuring of banks and enterprises. The state-owned accounting offices will only become real banks when enterprises are privatized, and enterprises will only feel pressure to restructure when the activity of banks is based on sound credit evaluation. A necessary precondition for success is to change incentives of both banks and enterprises by privatizing them. The Czech experience shows that banks can be privatized via vouchers even though their financial condition and bad loans were not yet entirely resolved. Once privatized, Czech banks started to improve their efficiency, managing their loan portfolio by exerting control over enterprises of affiliated investment funds. Since banks are economic actors outside of enterprises they can play an important role as external monitors and counterbalance the strong position of managers inside the enterprises. This decreases information asymmetries between banks and enterprises and leads to higher transparency about corporate performance. This is especially important for transition economies since information is scarce, external enforcement mechanisms in court are poorly developed or non-existent, and management tends to hide important enterprise data and to transfer assets for their own purposes after decades under central planning. Lower information screening costs for enterprise investment plans are therefore a crucial element in making investments in restructuring work where internal funds are insufficient.

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14. Appendix

Table 22: Investment characteristics of enterprises (in number of enterprises)

Size of enterprise 1/	Small	Medium	Large	Total
Individual investors	751	527	213	1491
(in % of points used)	*13*	*30*	*57*	*100*
Investment funds by size 2/				
Small funds	335	126	9	470
(in % of total number of enterprises)	*71*	*27*	*2*	*100*
Medium size funds	470	380	99	949
(in % of total number of enterprises)	*50*	*40*	*10*	*100*
Large funds	291	368	165	824
(in % of total number of enterprises)	*35*	*45*	*20*	*100*
Prices 3/				
High price	220	88	36	344
(in % of total number of enterprises)	*64*	*26*	*10*	
Medium price	340	254	97	691
(in % of total number of enterprises)	*49*	*37*	*14*	
Low price	138	142	59	339
(in % of total number of enterprises)	*41*	*42*	*17*	
Average Price (in shares per points)	0.054	0.078	0.086	0.071

1/ enterprise sizes are defined as (in number of shares of equity): small (less than 100,000), medium (between 100,000 and 1,000,000 shares), large (greater than 1,000,000).

2/ IPF sizes are defined as [in number of investment points acquired]: small (less than 100,000), medium (between 100,000 and 1,000,000 shares), large (greater than 1,000,000).

3/ prices are defined as (in number of shares per investment points, which means that *smaller numbers refer to higher prices*): high (less than 0.015 or 3 shares per 200 points), medium (> 0.015 or 3 shares per 200 points and < 0.08 or 16 shares per 200 points), low (more than 0.08 or 16 shares per 200 points).

Sources: Shafik (1993) and S. Claessens (the World Bank, internal calculations).

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