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An Empirical Examination of Firms' Financing Conditions in Transition Countries

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Abstract

The paper uses survey data to analyse the financing conditions of firms in transition countries. The results show that small firms have considerably more problems with access to and cost of finance than larger firms. Small firms also display markedly different financing patterns than large firms, relying to a much greater extent on internal financing sources and less on bank credit than large firms. To examine the determinants of access to and cost of finance the survey data are combined with macro and financial variables in an ordered logit model. The results indicate that a heavy reliance on foreign and state-owned banks have adverse effects on the average firm's financing condition. Albeit the entry and operations of foreign banks should also have positive effects such as a transfer of knowledge to and an increase in the efficiency of transition countries' financial sectors, foreign bank activity seems to benefit only larger firms.

1. Introduction

The fall of communism in the late 1980s and the subsequent and partly still ongoing transition of formerly centrally planned economies to capitalist market economies have provided the opportunity to study profound changes to economic systems (de Haas, 2005, p. 1). It has by now become generally accepted that financial markets play a central role in the growth and development of economies (e.g., Levine, 1997; Pagano, 1993; Thiel, 2001).[1] The development of financial markets in transition countries (TCs)[2] is therefore of special relevance. Financial markets can significantly contribute to economic development by allowing for an efficient allocation of resources by reducing information and transaction costs and enabling a better trading, hedging and pooling of risk (Pagano, 1993). Financial intermediaries channel savings to firms and thus help them to finance their operations and new investments.

Since the early 1990s, the financial markets of TCs underwent dramatic changes. The existing "monobank" or one-tier banking systems were replaced by two-tier systems which comprise a central bank and commercial banks. Banking sectors were completely restructured and largely privatised and capital markets have been established. The experience of other emerging regions such as Latin America, however, has shown that a capitalist system does not automatically imply sustained economic growth or that all parts of society are participating in it in an equal way (Nitsch, 2002, p. 203). In particular, whether financial markets will benefit the development of all agents in an economy depends very much on how financial markets are organised and whether they cater the needs of all kinds of firms and households. It is widely acknowledged that banks have a tendency to serve larger clients and that information asymmetry may lead to adverse selection and thus credit rationing which will affect mostly smaller businesses (Stiglitz and Weiss, 1981; Berger, Kashyap and Scalise, 1995; Berger, Klapper and Udell, 2001; Berger and Udell, 2002; Beck and Demirgüç-Kunt, 2006; Chick and Dow, 1994; Chick 2000). It is hence not surprising that financial markets were given special concern in the transition process by national governments, international lenders such as the World Bank and the European Bank for Reconstruction and Development (EBRD) or other actors like the European Union.

As the second decade of the transition process is coming to a close, it is worth taking stock and asking what has been achieved in TCs' financial markets and what are the problems that remain. Several aspects are of interest. Did financial market reform lead to a general improvement of financing conditions? Are there any differences in financing conditions and patterns between firms of different size? What effects, if any, does the involvement of foreign banks have on the financing of businesses? What are the main factors that influence access to and cost of finance? These are all questions that will be addressed in this paper.

The paper is structured as follows. Section two gives an overview of TCs' financial sectors. Section three presents the results of business surveys that were conducted by the EBRD and the World Bank in 2002 and 2005 in 26 TCs and in 2004 in six industrialised countries with respect to the financing conditions of firms in these countries. Section four then applies an ordered logit model to investigate the determinants of access to and cost of finance for firms in TCs. Section five concludes.

2. Overview: financial sectors in transition countries

Before scrutinising the financing conditions of businesses in TCs and the determinants thereof in the following sections, this section provides an overview of TCs' financial sectors, including information on the size of these countries' banking and securities markets, ownership structures of TCs' banking sectors, and TCs' regulatory framework. Albeit the financial sectors of the countries in question are obviously all different, there are three features that are characteristic for almost all of them.[3] First, even more than 15 years after the start of reform, financial sectors in most TCs show a relatively low level of financial deepening when compared with countries at a similar stage of economic development. Second, financial sectors are still largely dominated by banking activities. And third, banking sectors in most TCs show a very high degree of foreign bank ownership and a high degree of concentration.

2.1 Size of banking sectors and security markets

Table one shows domestic credit and stock market capitalisation, each as per cent of GDP for the years 2000 and 2005. A first thing to note is that domestic credit to the private sector is much larger

than stock market capitalisation in most TCs. Notable exceptions are Russia and Romania, where stock market capitalisation in 2005 was 2.8 and 2 times higher than domestic credit, respectively. Moldova, Poland and Ukraine also had higher stock market capitalisation than domestic credit to GDP ratios in 2005, but only slightly.

Second, the level of both domestic credit and stock market capitalisation relative to GDP is much lower than the world and EU averages. Except for Estonia and Latvia, the 2005 domestic credit to GDP ratio in all TCs is lower than the world average of 56 per cent, and much lower than the 86 per cent average for the EU. Regarding stock market capitalisation, Russia is a major exception with a stock market capitalisation of 72 per cent of GDP, which is even higher than the EU average.

Third, financial markets have deepened in most countries between 2000 and 2005. Exceptions here are the Czech Republic, Kyrgyz Republic, Slovak Republic, Tajikistan, Turkmenistan, and Uzbekistan, where the domestic credit-GDP ratio went down between 2000 and 2005, and Armenia, Estonia, Moldova, and Uzbekistan, where the stock market capitalisation-GDP ratio decreased over the same timeframe.

Table 1: Domestic credit to private sector and stock market capitalization, 2000 and 2005

	Domestic credit to private sector (in per cent of GDP)		Stock market capitalisation (in per cent of GDP)	
	2000	2005	2000	2005
Albania	3.0	10.3	n.a.	n.a.
Armenia	7.1	8.0	1.3	0.9
Azerbaijan	5.9	9.5	0.1	n.a.
Belarus	8.6	16.2	4.1	n.a.
Bosnia and Herzegovina	5.6	22.6	n.a.	n.a.
Bulgaria	11.6	44.5	4.8	20.1
Croatia	36.0	55.6	14.5	35.2
Czech Republic	49.9	37.6	19.3	31.8
Estonia	23.9	60.0	32.4	26.5
FYR Macedonia	10.5	18.6	0.2	11.4
Georgia	6.4	9.5	0.8	5.5
Hungary	32.0	51.7	25.8	31.9
Kazakhstan	11.2	26.7	7.5	21.6
Kyrgyz Republic	11.2	8.0	0.3	1.8
Latvia	16.9	60.7	7.4	17.4
Lithuania	10.0	34.0	13.9	31.8
Moldova	12.6	21.2	30.3	22.4*
Montenegro	n.a.	n.a.	n.a.	n.a.
Poland	26.6	27.8	17.9	31.6
Romania	7.2	11.3	3.4	22.3
Russia	13.3	25.7	15.3	71.9
Serbia	8.2	n.a.	n.a.	24.0
Slovak Republic	51.3	36.2	3.5	9.5
Slovenia	35.8	53.8	13.6	23.8
Tajikistan	19.2	17.1	n.a.	n.a.
Turkmenistan	2.1	1.4	n.a.	n.a.
Ukraine	11.2	31.2	6.0	31.3
Uzbekistan	27.9	20.4	1.0	0.3
CEB	26.4	42.3	16.7	26.0
SEE	12.3	23.9	5.8	23.0
CIS	8.4	9.4	6.7	17.0
World	45.7	55.8	53.2	57.7
European Union	74.4	85.8	78.7	67.0

Sources: EBRD 2006 (Table 3.1, p. 46) and EBRD Country Database.
Note: Data marked with a star is for 2004.

2.2 Ownership structure of transition countries' banking sectors

2.2.1 Role of state-owned banks

As can be seen in table two, state-owned banks have ceased to play a significant role in most TCs. State-owned banks still play a dominant role only in Azerbaijan, Belarus, Turkmenistan and Uzbekistan where they hold 55, 75, 96 and 67 per cent of all banking assets, respectively.[4] Moldova, Poland, and Serbia also maintain significant shares of state-owned banks in their respective banking sectors, with assets shares of state-owned banks around 20 per cent. Albania, Hungary, Slovenia, Tajikistan, and Ukraine have kept stakes in their banking systems in the range of about 10 per cent.

Table 2: Asset share of state-owned banks as per cent of total bank assets, 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	94.5	93.7	89.9	85.6	81.1	64.8	59.2	54.1	51.9	6.7	7.7
Armenia	2.4	3.2	3.4	5.7	3.5	3.8	0.0	0.0	0.0	0.0	0.0
Azerbaijan	80.5	77.6	80.9	65.5	82.5	60.4	58.3	62.0	55.3	56.1	55.2
Belarus	62.3	54.1	55.2	59.5	66.6	66.0	53.2	61.9	61.6	70.2	75.2
B&H	n.a.	n.a.	n.a.	n.a.	75.9	55.4	17.3	6.2	5.3	4.0	3.6
Bulgaria	n.a.	82.2	66.0	56.4	50.7	19.8	19.9	14.1	2.5	2.3	1.7
Croatia	51.9	36.2	32.6	37.5	39.8	5.7	5.0	4.0	3.4	3.3	3.4
Czech Republic	17.6	16.6	17.5	18.6	23.1	27.8	3.8	4.6	3.0	2.9	2.5
Estonia	9.7	6.6	0.0	7.8	7.9	0.0	0.0	0.0	0.0	0.0	0.0
FYR Macedonia	n.a.	0.0	0.0	1.4	2.5	1.1	1.3	2.0	1.8	1.9	1.6
Georgia	48.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hungary	49.0	15.3	3.5	9.8	7.8	7.7	9.1	10.7	7.4	6.6	7.0
Kazakhstan	24.3	28.4	44.8	23.0	19.9	1.9	3.5	5.2	5.1	3.7	3.1
Kyrgyz Republic	69.7	5.0	10.3	10.4	25.8	15.8	16.6	9.7	7.2	4.1	4.8
Latvia	9.9	6.9	6.8	8.5	2.6	2.9	3.2	4.0	4.1	4.0	4.3
Lithuania	61.8	54.0	48.8	44.4	41.9	38.9	12.2	0.0	0.0	0.0	0.0
Moldova	n.a.	n.a.	n.a.	0.3	7.9	9.8	10.2	13.4	15.5	17.6	19.3
Montenegro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23.8	19.2	16.4	5.1
Poland	71.7	69.8	51.6	48.0	24.9	23.9	24.4	26.6	25.8	21.7	21.5
Romania	84.3	80.9	80.0	75.3	50.3	50.0	45.4	43.6	40.6	7.5	6.5
Russia	n.a.	n.a.	37.0	41.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Serbia	94.7	92.0	89.8	90.0	89.0	90.9	68.0	35.6	34.1	23.4	23.9
Slovak Republic	61.2	54.2	48.7	50.0	50.7	49.1	4.9	1.9	1.5	1.3	1.1
Slovenia	41.7	40.7	40.1	41.3	42.2	42.5	48.9	13.3	12.8	12.6	12.0
Tajikistan	n.a.	5.3	30.3	29.2	6.9	6.8	4.8	4.5	6.1	12.2	9.7
Turkmenistan	26.1	64.1	68.3	77.8	96.9	97.1	96.5	95.7	96.1	n.a.	n.a.
Ukraine	n.a.	n.a.	13.5	13.7	12.5	11.9	11.8	12.0	9.8	8.0	9.4
Uzbekistan	38.4	75.5	70.6	67.3	65.8	77.5	80.4	73.7	70.0	67.6	n.a.
CEB	40.3	33.0	27.1	28.6	25.1	24.1	13.3	7.6	6.8	6.1	6.1
SEE	81.4	64.2	59.7	57.7	55.6	41.1	30.9	22.9	19.9	8.2	6.7
CIS	44.0	34.8	37.7	32.9	35.3	31.9	30.5	30.7	29.7	24.0	19.6

Source: EBRD Country Database.
Note: Data for Serbia includes Montenegro for the years 1995-99.

2.2.2 Role of foreign banks

A distinction can be made between two sorts of foreign banking activity: cross-border activities from the home country where the bank is headquartered and activities of local bank subsidiaries and branches in the host country.[5] With respect to the latter, foreign banks play a dominant role in almost all CEB and SEE states (with the notable exception of Slovenia), with a share in total

banking assets exceeding 50 per cent (table three).[6] In Albania, Bosnia and Herzegovina, Croatia, Estonia, Lithuania and the Slovak Republic foreign-owned banks hold even more than 90 per cent of all bank assets. Most CIS countries, in contrast, have maintained a dominance of domestic ownership, with an average of foreign-owned bank assets below 30 percent. Exceptions in the CIS are Armenia (49 per cent), Georgia (76 per cent), and Kyrgyz Republic (74 per cent).

The role of foreign-owned banks becomes apparent also when looking at the number of foreign-owned banks relative to the number of all banks (tables four and five). About 60 per cent of banks in CEB and SEE countries have foreign ownership, compared with only 35 per cent in CIS states. Table four shows not only how the number of foreign-owned banks increased steadily but also that consolidation in TCs' banking sector led to a reduction in the overall number of banks in almost all countries (exceptions are: Albania, Macedonia, Moldova, Romania, and Uzbekistan).

Table 3: Assets of foreign-owned banks relative to assets of all banks (in per cent), 1993-2005

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	n.a.	n.a.	n.a.	n.a.	n.a.	14.36	18.87	35.22	40.80	45.89	47.11	93.29	92.27
Armenia	n.a.	7.42	16.07	37.57	40.07	40.50	44.29	45.47	57.62	54.15	51.84	56.71	48.66
Azerbaijan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4.41	4.65	4.07	5.18	5.77	6.61
Belarus	n.a.	n.a.	0.73	0.71	1.37	2.34	2.91	4.32	7.51	8.08	20.37	19.97	16.17
Bosnia and Herzegovina	n.a.	n.a.	n.a.	2.41	4.17	1.91	3.84	21.62	65.35	76.68	79.69	80.87	90.87
Bulgaria	n.a.	n.a.	n.a.	n.a.	n.a.	32.47	42.79	75.34	72.70	75.15	82.66	81.61	74.48
Croatia	n.a.	0.09	0.17	0.90	2.96	6.60	40.35	84.11	89.30	90.16	91.02	91.16	91.17
Czech Republic	7.33	11.17	15.50	19.03	23.29	26.36	38.37	65.42	89.11	85.83	86.33	84.91	84.40
Estonia	0.39	0.34	1.80	1.56	28.75	90.22	89.77	97.36	97.56	97.54	97.54	97.96	99.38
Macedonia	n.a.	n.a.	n.a.	9.37	11.78	11.42	11.51	53.36	51.08	44.01	46.96	47.28	51.32
Georgia	n.a.	1.34	4.51	15.19	26.73	19.33	15.86	16.53	15.30	12.23	34.86	58.11	75.89
Hungary	9.38	13.27	36.82	61.32	59.20	61.47	67.43	66.45	85.01	83.45	63.04	82.62	
Kazakhstan	n.a.	n.a.	4.60	8.84	11.27	18.95	19.43	19.78	17.26	34.30	56.91	5.54	7.25
Kyrgyz Republic	n.a.	n.a.	n.a.	n.a.	18.34	35.81	16.55	24.58	32.71	50.45	61.22	70.07	73.64
Latvia	n.a.	n.a.	34.61	51.45	70.61	79.12	73.96	74.40	65.22	42.80	53.02	48.56	57.92
Lithuania	n.a.	n.a.	n.a.	27.97	40.58	50.69	37.15	54.70	78.20	96.07	95.62	90.76	91.71
Moldova	n.a.	n.a.	n.a.	n.a.	n.a.	22.40	34.40	39.78	34.87	36.67	35.19	33.58	19.61
Montenegro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	16.86	23.47	31.01	87.70
Poland	2.77	3.37	4.36	14.40	15.99	17.36	49.32	72.59	72.24	70.74	71.52	71.32	74.24
Romania	n.a.	n.a.	n.a.	n.a.	n.a.	11.47	151.30	43.56	46.75	51.41	52.92	54.77	58.52	59.16
Russia	n.a.	n.a.	3.00	4.42	6.73	10.15	10.59	9.52	8.76	8.07	7.42	7.57	8.27
Serbia	n.a.	0.13	0.18	0.24	0.62	0.46	0.37	0.48	13.17	26.99	38.41	37.65	66.01
Slovak Republic	n.a.	n.a.	n.a.	12.68	19.27	23.69	24.12	42.67	78.31	84.14	96.28	96.72	97.27
Slovenia	n.a.	3.91	4.80	5.29	5.38	4.86	4.87	15.33	15.24	16.87	18.86	20.06	22.57
Tajikistan	n.a.	n.a.	n.a.	n.a.	15.01	70.16	60.93	71.89	70.34	1.78	3.55	6.20	8.90
Turkmenistan	n.a.	n.a.	0.05	0.59	0.83	1.30	1.58	1.26	1.32	1.67	1.58	n.a.	n.a.
Ukraine	n.a.	n.a.	n.a.	n.a.	8.19	9.17	10.46	11.06	12.07	12.30	12.15	12.07	21.25
Uzbekistan	0.02	0.18	0.12	0.80	1.53	2.74	2.00	2.19	2.44	3.19	4.27	4.37	n.a.
CEB	4.97	6.41	16.32	22.32	33.15	43.94	47.38	61.24	70.29	72.38	75.33	71.67	76.26
SEE	n.a.	0.11	0.17	3.23	6.20	31.22	23.04	45.27	54.83	53.58	58.01	65.17	76.62
CIS	0.02	2.98	4.15	9.73	13.01	21.17	19.91	20.90	22.07	18.91	24.55	25.45	28.63

Source: EBRD Country Database.

Table 4: Total number of banks (of which foreign owned), 1993-2005

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	n.a.	6 (3)	6 (3)	8 (3)	9 (3)	10 (8)	13 (11)	13 (12)	13 (12)	13 (12)	15 (13)	16 (14)	16 (14)
Armenia	n.a.	41 (1)	35 (3)	33 (4)	30 (4)	31 (10)	31 (12)	31 (11)	30 (14)	20 (8)	19 (8)	20 (9)	21 (10)
Azerbaijan	164 (1)	210 (2)	180 (5)	136 (6)	99 (6)	79 (4)	70 (5)	59 (5)	53 (5)	46 (4)	46 (4)	44 (5)	44 (5)
Belarus	n.a.	48 (0)	40 (1)	38 (2)	38 (2)	37 (2)	36 (4)	31 (6)	29 (9)	28 (12)	30 (17)	32 (19)	30 (18)
B&H	n.a.	n.a.	n.a.	41 (5)	52 (9)	53 (9)	61 (9)	56 (14)	49 (20)	40 (21)	37 (19)	33 (17)	33 (20)
Bulgaria	41 (0)	40 (1)	41 (3)	42 (3)	28 (7)	34 (17)	34 (22)	35 (25)	35 (26)	34 (26)	35 (25)	35 (24)	34 (23)
Croatia	43 (0)	50 (0)	54 (1)	58 (4)	61 (7)	60 (10)	53 (13)	43 (21)	43 (24)	46 (23)	41 (19)	37 (15)	34 (13)
Czech Republic	52 (18)	55 (21)	55 (23)	53 (23)	50 (24)	45 (25)	42 (27)	40 (26)	38 (26)	37 (26)	35 (26)	35 (26)	36 (27)
Estonia	21 (1)	22 (2)	19 (5)	15 (4)	12 (4)	6 (3)	7 (3)	7 (4)	7 (4)	7 (4)	7 (4)	9 (6)	13 (10)
FYR Macedonia	n.a.	6 (3)	6 (3)	22 (5)	22 (5)	24 (6)	23 (5)	22 (7)	21 (8)	20 (7)	21 (8)	21 (8)	20 (8)
Georgia	176 (0)	226 (1)	101 (3)	61 (6)	53 (8)	44 (10)	39 (11)	32 (8)	29 (7)	27 (5)	24 (6)	21 (7)	19 (10)
Hungary	42 (16)	43 (18)	43 (21)	42 (26)	45 (30)	44 (28)	43 (29)	42 (33)	41 (32)	38 (28)	38 (29)	38 (27)	38 (27)
Kazakhstan	204 (5)	184 (8)	130 (8)	101 (9)	81 (22)	71 (20)	55 (18)	48 (16)	44 (15)	38 (17)	36 (16)	35 (15)	34 (14)
Kyrgyz Republic	20 (1)	18 (3)	18 (3)	18 (3)	20 (3)	23 (6)	23 (5)	22 (6)	20 (5)	20 (6)	21 (7)	19 (9)	19 (10)
Latvia	62 (6)	56 (16)	41 (17)	34 (18)	32 (16)	28 (14)	24 (12)	22 (12)	23 (10)	23 (9)	23 (10)	23 (9)	23 (10)
Lithuania	28 (0)	22 (0)	15 (0)	12 (3)	12 (4)	12 (5)	13 (4)	13 (6)	13 (6)	14 (7)	13 (7)	12 (6)	12 (6)
Moldova	16	21	25	22	22	23 (7)	20 (10)	20 (11)	19 (10)	16 (10)	16 (9)	16 (9)	16 (7)
Montenegro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	10 (3)	10 (3)	10 (3)	10 (7)
Poland	87 (10)	82 (11)	81 (18)	81 (25)	81 (28)	83 (31)	77 (39)	73 (46)	69 (46)	59 (45)	58 (46)	57 (44)	61 (50)
Romania	14 (1)	20 (5)	24 (8)	31 (10)	33 (13)	36 (16)	34 (19)	33 (21)	33 (24)	31 (24)	30 (21)	32 (23)	33 (24)
Russia	2,003 (n.a.)	2,456 (n.a.)	2,297 (21)	2,029 (22)	1,697 (26)	1,476 (30)	1,349 (32)	1,311 (33)	1,319 (35)	1,329 (37)	1,329 (41)	1,299 (42)	1,253 (52)
Serbia	n.a.	101 (2)	112 (3)	103 (3)	106 (3)	104 (3)	75 (3)	81 (3)	54 (8)	50 (12)	47 (16)	43 (11)	40 (17)
Slovak Republic	28 (13)	29 (14)	33 (18)	29 (14)	29 (13)	27 (10)	25 (10)	23 (13)	21 (12)	20 (15)	21 (16)	21 (16)	23 (16)
Slovenia	45 (5)	44 (6)	39 (6)	36 (4)	34 (4)	30 (3)	31 (5)	28 (6)	24 (5)	22 (6)	22 (6)	22 (7)	25 (9)
Tajikistan	15 (1)	18 (2)	20 (3)	23 (3)	28 (4)	20 (3)	19 (3)	16 (3)	15 (3)	14 (3)	15 (4)	12 (3)	12 (3)
Turkmenistan	n.a.	n.a.	67 (3)	68 (4)	67 (4)	13 (4)	13 (4)	13 (4)	13 (4)	13 (4)	12 (4)	11 (4)	11 (4)
Ukraine	n.a.	n.a.	230 (1)	229 (6)	227 (12)	175 (12)	161 (15)	154 (14)	152 (16)	157 (15)	158 (19)	160 (19)	165 (23)
Uzbekistan	21 (1)	29 (1)	31 (1)	29 (2)	30 (4)	33 (4)	35 (5)	34 (6)	38 (6)	35 (6)	33 (5)	31 (5)	n.a.

Source: EBRD Country Database.

Table 5: Ratio of foreign banks to total number of banks (in per cent), 1993-2005

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	n.a.	50	50	38	33	80	85	92	92	92	87	88	88
Armenia	n.a.	2	9	12	13	32	39	35	47	40	42	45	48
Azerbaijan	1	1	3	4	6	5	7	8	9	9	9	11	11
Belarus	n.a.	n.a.	3	5	5	5	11	19	31	43	57	59	60
B&H	n.a.	n.a.	n.a.	12	17	17	15	25	41	53	51	52	61
Bulgaria	n.a.	3	7	7	25	50	65	71	74	76	71	69	68
Croatia	n.a.	n.a.	2	7	11	17	25	49	56	50	46	41	38
Czech Republic	35	38	42	43	48	56	64	65	68	70	74	74	75
Estonia	5	9	26	27	33	50	43	57	57	57	57	67	77
FYR Macedonia	n.a.	50	50	23	23	25	22	32	38	35	38	38	40
Georgia	n.a.	n.a.	3	10	15	23	28	25	24	19	25	33	53
Hungary	38	42	49	62	67	64	67	79	78	74	76	71	71
Kazakhstan	2	4	6	9	27	28	33	33	34	45	44	43	41
Kyrgyz Republic	5	17	17	17	15	26	22	27	25	30	33	47	53
Latvia	10	29	41	53	50	50	50	55	43	39	43	39	43
Lithuania	n.a.	n.a.	n.a.	25	33	42	31	46	46	50	54	50	50
Moldova	n.a.	n.a.	n.a.	n.a.	n.a.	30	50	55	53	63	56	56	44
Montenegro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	30	30	30	70
Poland	11	13	22	31	35	37	51	63	67	76	79	77	82
Romania	7	25	33	32	39	44	56	64	73	77	70	72	73
Russia	n.a.	n.a.	1	1	2	2	2	3	3	3	3	3	4
Serbia	n.a.	2	3	3	3	3	4	4	15	24	34	26	43
Slovak Republic	46	48	55	48	45	37	40	57	57	75	76	76	70
Slovenia	11	14	15	11	12	10	16	21	21	27	27	32	36
Tajikistan	7	11	15	13	14	15	16	19	20	21	27	25	25
Turkmenistan	n.a.	n.a.	4	6	6	31	31	31	31	31	33	36	36
Ukraine	n.a.	n.a.	n.a.	3	5	7	9	9	11	10	12	12	14
Uzbekistan	5	3	3	7	13	12	14	18	16	17	15	16	n.a.
CEB	20	24	31	38	40	43	45	55	55	59	61	61	63
SEE	7	26	24	17	22	34	39	48	56	55	53	52	60
CIS	4	5	6	8	11	18	22	24	25	28	30	32	35

Source: EBRD Country Database.

2.2.3 Concentration in the banking sector

Table four already showed the consolidation and concentration process that has been going on in the banking sectors of most TCs. As can be seen from table six, concentration in the banking sector – measured as the share of the assets of the five largest banks in total bank assets – is relatively high in almost all TCs when

compared with western European countries. With the exception of Armenia, Bulgaria, Hungary, Montenegro, Poland, Russia, Serbia and Ukraine, the market share of the five largest banks in the TCs is markedly higher than the unweighted average of 54 per cent for the member countries of the euro area.

Table 6: Assets of five largest banks relative to total assets of all banks (in per cent), 1993-2005

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Albania	n.a.	n.a.	n.a.	n.a.	n.a.	95.05	91.80	89.07	86.75	85.84	84.81	83.18	78.21
Armenia	n.a.	85.65	78.02	73.23	63.41	55.87	50.35	46.85	48.29	54.08	55.18	56.10	55.13
Azerbaijan	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	71.91	70.21	67.50	67.17	65.30
Belarus	n.a.	n.a.	83.30	86.81	89.03	85.25	83.32	82.40	86.11	85.04	85.29	86.11	87.51
B&H	n.a.	n.a.	n.a.	81.84	78.22	72.71	73.69	57.80	57.31	63.14	68.62	74.77	76.16
Bulgaria	n.a.	n.a.	n.a.	n.a.	n.a.	61.58	62.26	60.51	56.51	55.47	53.03	52.19	50.83
Croatia	n.a.	73.63	71.05	62.97	57.77	56.97	62.19	66.34	66.43	64.56	70.67	78.87	74.45
Czech Republic	73.55	73.75	70.31	69.28	66.61	65.29	65.10	66.09	68.38	65.75	65.77	63.97	65.49
Estonia	68.72	68.20	74.75	78.26	87.29	99.88	99.45	98.80	98.88	99.08	99.18	98.55	98.10
FYR Macedonia	n.a.	n.a.	n.a.	77.74	69.36	67.76	71.41	72.42	72.14	73.62	76.06	76.24	75.02
Georgia	76.92	67.91	101.91	47.51	43.02	41.73	51.33	50.56	60.90	63.23	68.25	75.04	78.44
Hungary	71.44	66.07	58.79	57.77	52.90	53.63	53.80	53.28	57.49	55.12	53.01	53.55	54.25
Kazakhstan	72.37	75.23	43.38	50.22	61.48	67.42	63.12	65.61	68.13	71.33	73.07	74.06	74.07
Kyrgyz Rep.	n.a.	n.a.	n.a.	n.a.	62.62	55.94	53.54	50.16	51.72	62.40	64.01	65.86	65.28
Latvia	n.a.	51.09	52.69	52.07	51.21	60.62	61.26	62.28	66.18	65.25	63.08	62.41	67.33
Lithuania	n.a.	n.a.	75.61	80.28	84.26	89.93	91.07	88.46	87.90	84.46	81.60	79.46	81.29
Moldova	92.69	84.77	81.30	70.46	63.48	62.87	66.26	64.46	68.78	71.01	70.83	70.43	69.73
Montenegro	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	79.77	77.76	77.30	44.80
Poland	54.86	53.09	52.72	51.14	48.36	44.82	49.84	48.54	53.09	56.38	55.11	53.01	51.62
Romania	n.a.	n.a.	n.a.	n.a.	76.00	698.77	66.75	70.12	70.78	67.88	66.89	64.69	63.51
Russia	n.a.	n.a.	32.47	38.50	37.90	42.20	42.01	41.24	42.83	44.24	42.86	45.07	43.80
Serbia	n.a.	56.57	56.92	54.74	55.64	54.18	72.86	65.40	48.71	46.54	47.64	47.30	50.27
Slovak	86.77	81.87	75.02	68.15	63.31	60.08	58.90	63.43	66.63	66.90	67.47	66.55	67.74
Slovenia	n.a.	61.94	63.12	62.63	62.19	63.27	63.34	62.53	69.06	69.53	67.43	65.13	63.60
Tajikistan	n.a.	n.a.	n.a.	85.73	85.27	118.62	83.14	86.70	89.70	88.59	86.38	80.59	79.37
Turkmenistan	n.a.	n.a.	98.39	97.88	97.11	97.61	96.94	97.10	96.47	95.67	96.11	n.a.	n.a.
Ukraine	n.a.	n.a.	n.a.	n.a.	47.99	45.35	38.65	38.26	40.23	39.43	38.39	37.37	36.44
Uzbekistan	98.46	96.41	90.05	80.32	87.24	84.85	89.13	90.50	90.96	87.45	85.22	83.94	n.a.
CEB	71.07	65.14	65.38	64.95	64.51	67.19	67.84	67.93	70.95	70.31	69.08	67.83	68.68
SEE	n.a.	65.10	63.98	69.32	67.40	158.15	71.57	68.81	65.52	67.10	68.19	69.32	64.16
CIS	85.11	81.99	76.10	70.07	67.14	68.88	65.25	64.90	68.00	69.39	69.42	67.43	65.51
Germany	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	20.20	20.50	21.60	22.10	21.60
EMU weighted	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	39.10	39.30	40.50	41.60	43.00
EMU unweighted	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	51.90	52.70	53.10	53.30	54.40

Sources: EBRD country database and ECB (2006, p. 54, Table 3).

2.3 Institutional and regulatory framework of financial markets

Tables seven and eight show the EBRD's transition indicators for the progress made in banking reform and securities markets. The measurement scales for the indicators range from 1 to 4+, where 1 represents little or no change from a rigid centrally planned economy and a 4+ represents the standards of an industrialised market economy (with 0.3 decimal points added or subtracted for + and – ratings).[7] Even though all TCs started at the same low level, the present stage of the regulatory framework is quite uneven between them. While most CEB countries have (almost) reached the regulatory standards of an industrialised market economy in the banking sector and have made very good progress with respect to the regulatory framework of securities markets and non-bank financial institutions, progress has been a bit slower in SEE and

much slower in several CIS countries (with virtually no progress in Turkmenistan).

Table 7: EBRD Transition indicator for banking reform & interest rate liberalisation, 1989-2006

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Albania	1.00	1.00	1.00	1.00	1.33	2.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33	2.67	2.67	2.67
Armenia	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67
Azerbaijan	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33	2.33	2.33
Belarus	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67
B&H	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67
Bulgaria	1.00	1.00	1.00	1.67	2.00	2.00	2.00	2.00	2.67	2.67	2.67	3.00	3.00	3.33	3.33	3.67	3.67	3.67
Croatia	1.00	1.00	1.00	1.00	2.00	2.67	2.67	2.67	2.67	2.67	3.00	3.33	3.33	3.67	3.67	4.00	4.00	4.00
Czech Republic	1.00	1.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.33	3.33	3.67	3.67	3.67	3.67	4.00	4.00
Estonia	1.00	1.00	1.00	2.00	3.00	3.00	3.00	3.00	3.33	3.33	3.67	3.67	3.67	3.67	3.67	4.00	4.00	4.00
FYR Macedonia	1.00	1.00	1.00	1.00	1.33	2.00	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
Georgia	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67
Hungary	1.00	1.00	2.00	2.00	3.00	3.00	3.00	3.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Kazakhstan	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.33	2.33	2.33	2.67	2.67	3.00	3.00	3.00	3.00	3.00
Kyrgyz Republic	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.33	2.33	2.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33
Latvia	1.00	1.00	1.00	2.00	2.00	3.00	3.00	3.00	3.00	2.67	3.00	3.00	3.33	3.67	3.67	3.67	3.67	3.67
Lithuania	1.00	1.00	1.00	1.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.33	3.33	3.67	3.67	3.67
Moldova	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67
Montenegro	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	2.00	2.00	2.33	2.33	2.67
Poland	1.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.67	3.67
Romania	1.00	1.00	1.00	1.00	1.00	2.00	3.00	3.00	2.67	2.33	2.67	2.67	2.67	2.67	2.67	3.00	3.00	3.00
Russia	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.33	2.00	1.67	1.67	1.67	2.00	2.00	2.00	2.33	2.67
Serbia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.33	2.33	2.33	2.67	2.67
Slovak Republic	1.00	1.00	2.00	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	3.00	3.33	3.33	3.33	3.67	3.67	3.67
Slovenia	1.00	1.00	1.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.33	3.33	3.33	3.33	3.33	3.33	3.67	3.67
Tajikistan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	2.00	2.00	2.33
Turkmenistan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ukraine	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33	2.67	3.00
Uzbekistan	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
CEB	1.00	1.13	1.50	2.08	2.71	2.83	2.96	2.96	3.13	3.13	3.29	3.33	3.46	3.50	3.54	3.63	3.75	3.75
SEE	1.00	1.00	1.00	1.08	1.33	1.71	1.92	1.92	1.96	2.08	2.25	2.38	2.38	2.67	2.67	2.92	2.96	3.00
CIS	1.00	1.00	1.00	1.00	1.08	1.25	1.81	1.72	1.86	1.86	1.81	1.81	1.86	2.03	2.08	2.17	2.25	2.33

Source: EBRD Country Database.

Table 8: EBRD Transition indicator for securities markets & non-bank financial institutions, 1989-2006

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Albania	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
Armenia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Azerbaijan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
Belarus	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
B&H	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67
Bulgaria	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33	2.67
Croatia	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67	2.67	3.00
Czech Republic	1.00	1.00	1.00	1.00	2.00	2.67	2.67	2.67	2.67	3.00	3.00	3.00	3.00	3.00	3.00	3.33	3.67	3.67
Estonia	1.00	1.00	1.00	1.00	1.67	1.67	1.67	2.00	3.00	3.00	3.00	3.00	3.00	3.33	3.33	3.33	3.67	3.67
FYR Macedonia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67	1.67	2.00	2.00	2.33
Georgia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67	1.67	1.67
Hungary	1.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.33	3.33	3.33	3.67	3.67	3.67	3.67	4.00	4.00	4.00
Kazakhstan	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	2.00	2.00	2.33	2.33	2.33	2.33	2.33	2.33	2.67
Kyrgyz Republic	1.00	1.00	1.00	1.00	1.00	1.00	1.67	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Latvia	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.33	2.33	2.33	2.33	2.33	3.00	3.00	3.00	3.00	3.00
Lithuania	1.00	1.00	1.00	1.00	1.67	2.00	2.00	2.00	2.33	2.33	2.67	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Moldova	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Montenegro	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.67	1.67
Poland	1.00	1.00	2.00	2.00	2.00	2.00	3.00	3.00	3.33	3.33	3.33	3.67	3.67	3.67	3.67	3.67	3.67	3.67
Romania	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Russia	1.00	1.00	1.00	1.00	1.67	1.67	2.00	3.00	3.00	1.67	1.67	1.67	1.67	2.33	2.67	2.67	2.67	3.00
Serbia	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.67	2.00	2.00	2.00	2.00
Slovak Republic	1.00	1.00	1.00	1.00	2.00	2.67	2.67	2.67	2.33	2.33	2.33	2.33	2.33	2.33	2.67	2.67	2.67	3.00
Slovenia	1.00	2.00	2.00	2.00	2.00	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67	2.67
Tajikistan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turkmenistan	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ukraine	1.00	1.00	1.00	1.67	1.67	1.67	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.33	2.33	2.33
Uzbekistan	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
CEB	1.00	1.25	1.38	1.38	1.79	2.21	2.46	2.50	2.75	2.79	2.83	2.96	2.96	3.08	3.13	3.17	3.25	3.34
SEE	1.00	1.00	1.00	1.00	1.00	1.25	1.38	1.46	1.50	1.58	1.58	1.58	1.58	1.92	1.96	2.00	2.00	2.13
CIS	1.00	1.00	1.00	1.14	1.20	1.42	1.53	1.64	1.64	1.70	1.70	1.78	1.78	1.83	1.86	1.89	1.89	1.95

Source: EBRD Country Database.

2.4 International bank lending

Lastly, we have a look at the integration of TCs into international financial markets. There are a number of ways to measure international financial integration, one of which is cross-border banking activity.[8] In its Consolidated Banking Statistics the Bank for International Settlement (BIS) publishes data on foreign claims of BIS reporting banks.[9] Foreign claims refer to claims on borrowers resident outside the country in which the bank is headquartered. Foreign claims can be disaggregated into cross-border claims and local claims booked by foreign offices. The latter refer to claims on residents of the country in which the foreign office is located. For example, claims on Czech residents booked by an Austrian bank's Czech-located subsidiary would be reported by Austria as local claims on the Czech Republic. The figures in table nine thus also comprise local lending of foreign banks, i.e., part of the assets reported in table three are included here as well. Table nine shows that foreign claims to most CEB countries as per cent of GDP have (almost) reached or even exceeded the level of Germany with 54 per cent. (Estonia is an exception, where foreign claims as per cent of GDP are more than double the German value.) With 26 per cent, the average foreign claims to GDP ratio in SEE is less than half the German value, while CIS countries on average have less than a tenth the level of cross-border foreign bank activity that Germany has.

Table 9: Foreign claims of BIS reporting banks, 2005

	In million USD	As per cent of GDP
Albania	828	9.89
Armenia	133	2.71
Azerbaijan	471	3.75
Belarus	517	1.72
Bosnia and Herzegovina	1,901	18.90
Bulgaria	9,114	34.11
Croatia	30,153	78.30
Czech Republic	54,983	44.35
Estonia	16,663	121.16
FYR Macedonia	748	12.95
Georgia	301	4.71
Hungary	70,075	62.81
Kazakhstan	4,523	7.92
Kyrgyz Republic	72	2.93
Latvia	8,164	51.59
Lithuania	10,523	41.00
Moldova	66	2.21
Poland	116,520	38.44
Romania	18,694	18.97
Russia	69,025	9.04
Serbia and Montenegro	2,827	10.78
Slovak Republic	27,561	58.11
Slovenia	12,345	35.88
Tajikistan	90	3.89
Turkmenistan	695	4.05
Ukraine	5,293	6.15
Uzbekistan	1,391	10.18
CEB	39,604	56.67
SEE	9,180	26.27
CIS	6,885	5.12
Germany	1,495,693	53.58

Sources: Author's calculations with data from the BIS Consolidated Banking Statistics (BIS Quarterly Review, March 2005) and IMF WEO.

3. Access to finance in transition countries

This section analyses data from a Business Environment and Enterprise Performance Survey (BEEPS) which was implemented jointly by the EBRD and the World Bank. The BEEPS aims to investigate the extent to which government policies and practices facilitate or impede business activity and investment in central and (south)eastern Europe and the CIS. It also includes unique information on the access to finance and the financing conditions for firms in the region. The BEEPS was first conducted in 1999 and then again in modified form in 2002 and 2005. The 2002 BEEPS covers 6,153 firms in 26 TCs, while the 2005 survey covers 9,097 firms for the same countries.[10] In 2004, BEEPS was conducted in six industrialised countries (Germany, Portugal, Greece, South Korea, Spain, Ireland), collecting information on 3,953 firms.[11]

In the following, the results of the BEEPS 2002 and 2005 are looked at more closely to see whether the surveys indicates differences in the financing conditions of small and medium enterprises (SMEs) and large firms, and over the years. The 2004 BEEPS results for industrialised countries help to set the results for the TCs into perspective. It is important to note that for the BEEPS firms were asked to appraise the conditions of their business environment and that some of these evaluations – like the perception of access to finance – are subjective by nature. Hence the judgments of firms of different size, location and nationality cannot be compared at face value. Nevertheless, the BEEPS gives a best possible picture of the sentiment in the TCs and also contains "hard" data such as information on firm's sources of finance.

Among others, firms were asked in the BEEPS how problematic different factors are for the operation and growth of their businesses. Table ten displays the results for the firms' responses on how big a problem they perceive access to financing (e.g. collateral required) and the cost of financing (e.g. interest rates and charges). Firms were asked to answer on a score from 1 (no obstacle) to 4 (major obstacle).

The upper part of table ten gives the average score for all firms that were questioned in the TCs with respect to access to financing. We can see that access to finance has improved slightly for the average firm from a value of 2.33 in 2002 to 2.26 in 2005. Looking at the size of firms shows that small firms (with 2-49 employees) on

average find it harder to obtain financing than medium-sized firms (50-249 employees), which in turn seem to have bigger problems in accessing finance than large firms (250-9,999 employees).[12]

Table 10: Financing conditions in transition countries, 2002 and 2005

| | Access to finance | | | | | |
| | 2002 | | | 2005 | | |
	No. of observations	Mean	SD	No. of observations	Mean	SD
All firms	5,810	2.33	1.16	8,647	2.26	1.14
Small firm	3,902	2.38	1.17	6,065	2.31	1.14
Medium firm	1,074	2.23	1.13	1,728	2.20	1.11
Large firm	807	2.18	1.15	853	2.01	1.10
	Cost of finance					
	2002			2005		
	No. of observations	Mean	SD	No. of observations	Mean	SD
All firms	5,864	2.53	1.13	8,698	2.51	1.13
Small firm	3,931	2.55	1.14	6,097	2.56	1.14
Medium firm	1,088	2.52	1.10	1,746	2.47	1.11
Large firm	819	2.42	1.10	854	2.28	1.12

Source: Author's calculations with BEEPS 2002 and 2005 datasets.

Note: The average score is based on a scale of 1 (no obstacle) to 4 (major obstacle). The exact question was: "Can you tell me how problematic are these different factors for the operation and growth of your business: Access to financing (e.g., collateral required or financing not available from banks) / Cost of financing (e.g., interest rates and charges)".

The same seems to be true for the cost of financing as shown in the lower part of table ten: on average, smaller firms perceive the cost of financing as a greater obstacle for the operation and growth of their businesses than do medium-sized and large firms. As we can see from table eleven, the differences in firm size with respect to the conditions for access to and cost of financing are not specific to TCs. Apparently, the same pattern holds in industrialised countries, even though firms there on average seem to have less problems with finance than those in TCs (which is exactly what one would expect).

Table 11: Financing conditions in industrialised countries, 2004

	No. of observations	Mean	SD
Access to finance			
All firms	3,873	2.02	1.09
Small firms	3,002	2.05	1.10
Medium firms	496	2.02	1.07
Large firms	375	1.81	0.98
Cost of finance			
	No. of observations	Mean	SD
All firms	3,884	2.14	1.11
Small firms	3,012	2.17	1.13
Medium firms	497	2.08	1.05
Large firms	375	2.02	1.04

Source: Author's calculations with BEEPS 2004 dataset.

Note: The BEEPS 2004 included the identical questions as BEEPS 2005. BEEPS 2004 was conducted in Germany, Greece, Ireland, Portugal, South Korea and Spain (and Vietnam, which was excluded here).

From the average results in tables ten and eleven one could conclude that while differences in financing conditions between firms of different size and between firms in TCs and industrialised countries exist, they might not be so grave as to give cause for concern. But the picture becomes more complete when the sources of finance are reviewed. Tables twelve and thirteen show the sources of finance for working capital and new investment for all firms questioned in the TCs for 2002 and 2005, and also by size of firm. Tables fourteen and fifteen show the results for firms in industrialised countries.

Table 12: Sources of finance for working capital in transition countries, 2002 and 2005

	2002								2005							
	All firms		Small firms		Medium firms		Large firms		All firms		Small firms		Medium firms		Large firms	
	5,991 obs		4,050 obs		1,101 obs		811 obs		8,887 obs		6,269 obs		1,762 obs		856 obs	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Internal funds/retained earnings	69.28	38.09	71.65	37.46	65.72	38.45	62.91	39.33	73.55	36.49	75.49	35.94	70.59	36.73	65.45	38.39
Equity (i.e. issue new shares)	2.93	14.58	2.85	14.56	3.11	14.76	3.22	14.66	3.46	15.66	3.75	16.54	2.97	14.16	2.39	11.36
Borrowing from local private commercial banks	4.52	15.06	3.32	13.18	6.89	18.41	7.25	17.92	7.09	19.14	5.94	17.86	9.09	21.12	11.44	22.62
Borrowing from state-owned banks, including state development banks	2.67	12.03	2.07	10.80	2.98	12.43	5.20	16.31	1.57	9.01	1.28	8.30	2.36	10.77	2.11	9.87
Borrowing from foreign banks	0.90	7.14	0.61	5.68	1.22	8.39	1.86	10.62	1.05	7.77	0.74	6.51	1.37	8.48	2.71	12.84
Loans from family/friends	4.59	15.95	6.00	18.12	1.85	9.25	0.97	8.01	2.99	12.89	3.82	14.61	1.26	7.48	0.50	5.50
Money lenders or other informal sources (other than family/friends)	1.29	7.86	1.52	8.81	0.95	6.11	0.59	4.04	0.78	6.06	0.81	6.17	0.89	6.55	0.37	3.77
Trade credit from suppliers	5.31	15.50	4.61	14.55	6.76	17.42	6.84	17.08	3.92	13.83	3.57	13.58	4.42	14.06	5.45	14.99
Trade credit from customers	2.32	11.07	2.20	11.11	2.74	11.72	2.26	9.43	1.45	8.51	1.24	8.06	1.89	9.42	2.09	9.62
Credit cards	0.33	3.84	0.39	4.38	0.17	2.16	0.20	2.38	0.31	3.69	0.34	4.05	0.23	2.62	0.25	2.68
Leasing arrangement	1.28	7.73	1.19	7.64	1.50	8.27	1.47	7.51	1.21	7.13	1.13	7.16	1.55	7.58	1.17	5.83
The government (other than state-owned banks)	1.83	11.85	1.11	9.33	3.05	15.21	3.77	16.79	1.21	9.64	0.64	7.17	2.11	12.62	3.51	15.86
Other	2.76	14.96	2.47	14.38	3.06	15.59	3.43	15.96	1.38	10.63	1.25	10.29	1.27	10.09	2.55	13.69
Sum	100.00		100.00		100.00		100.00		100.00		100.00		100.00		100.00	

Source: Author's calculations with BEEPS 2002 and 2005 datasets.

Interesting to note is that the proportion of external finance as part of the total financing is rather small in TCs, and that borrowing from banks in general is very low. On average, about 70 per cent of both working capital and new investment of firms in TCs is

generated from internal sources (tables twelve and thirteen), considerably higher than the shares in industrialised countries (65 per cent for working capital and 57 per cent for new investment in 2004; cf. tables fourteen and fifteen). Accounting for firm size, again, we find pronounced differences in financing between small, medium and large firms: in TCs, small firms rely to a much greater extent on internal funds (about 75 per cent for working capital and 73 percent for new investment in 2005) than medium-sized firms (71 and 68 per cent) and large firms (65 per cent for both working capital and new investment in 2005). The fact that firms have a different financing structure does not necessarily imply that this is constraining their activities or costly to them. However, empirical evidence provided by de Haas and Peeters (2006) suggests that the high reliance of firms in TCs on internal finance is sub-optimal. This clearly points to constraints of firms, especially smaller ones, in TCs in accessing external financing.[13]

Table 13: Sources of finance for new investments in transition countries, 2002 and 2005

	2002								2005							
	All firms		Small firms		Medium firms		Large firms		All firms		Small firms		Medium firms		Large firms	
	4,150 obs		2,726 obs		797 obs		606 obs		6,506 obs		4,409 obs		1,398 obs		699 obs	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Internal funds/retained earnings	69.73	39.72	71.76	39.03	66.99	40.24	65.09	41.01	70.90	39.44	72.70	38.93	68.38	39.52	64.58	41.54
Equity (i.e. issue new shares)	2.66	14.59	2.80	15.15	2.71	14.17	2.06	12.72	3.26	16.02	3.47	16.80	2.81	14.26	2.82	14.17
Borrowing from local private commercial banks	5.46	18.29	4.16	16.07	8.20	22.23	7.85	21.36	9.69	24.63	8.84	24.00	11.23	25.42	12.02	26.66
Borrowing from state-owned banks, including state development banks	3.20	14.83	2.92	14.45	2.79	13.08	4.88	17.94	1.90	11.29	1.62	10.61	2.39	12.24	2.66	13.26
Borrowing from foreign banks	1.51	10.20	0.89	8.16	2.22	11.83	3.35	14.88	1.65	10.98	1.21	9.52	2.08	12.11	3.54	15.89
Loans from family/friends	4.30	16.64	5.73	19.12	1.68	9.34	1.02	8.49	2.79	13.16	3.71	15.11	1.19	8.61	0.20	2.61
Money lenders or other informal sources (other than family/friends)	1.10	7.68	1.37	8.67	0.68	5.37	0.50	5.18	0.74	6.32	0.83	6.72	0.68	5.92	0.34	4.06
Trade credit from suppliers	1.95	10.12	1.81	9.74	2.57	11.88	1.83	9.38	1.38	8.58	1.31	8.57	1.41	8.60	1.76	8.57
Trade credit from customers	1.12	7.92	0.94	7.28	1.47	8.75	1.55	9.47	0.66	5.74	0.56	5.53	0.86	6.01	0.84	6.46
Credit cards	0.29	4.24	0.40	5.12	0.08	1.36	0.07	1.62	0.19	3.34	0.21	3.64	0.16	2.54	0.14	2.78
Leasing arrangement	3.96	15.93	3.96	16.26	3.77	14.87	3.93	14.88	3.76	15.67	3.31	14.93	4.79	17.49	4.57	16.29
The government (other than state-owned banks)	1.90	12.63	1.08	9.64	3.14	15.87	4.00	18.31	1.30	10.09	0.66	7.18	2.13	12.52	3.63	17.28
Other	2.81	15.47	2.19	13.67	3.70	17.79	3.86	17.78	1.78	12.45	1.57	11.97	1.89	12.33	2.90	15.31
Sum	100.00		100.00		100.00		100.00		100.00		100.00		100.00		100.00	

Source: Author's calculations with BEEPS 2002 and 2005 datasets.

Table 14: Sources of finance for working capital in industrialised countries, 2004

Table 13: Sources of finance for new investments in transition countries, 2002 and 2005

	2002								2005							
	All firms		Small firms		Medium firms		Large firms		All firms		Small firms		Medium firms		Large firms	
	4,150 obs		2,726 obs		797 obs		606 obs		6,506 obs		4,409 obs		1,398 obs		699 obs	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Internal funds/retained earnings	69.73	39.72	71.76	39.03	66.99	40.24	65.09	41.01	70.90	39.44	72.70	38.93	68.38	39.52	64.58	41.54
Equity (i.e. issue new shares)	2.66	14.59	2.80	15.15	2.71	14.17	2.06	12.72	3.26	16.02	3.47	16.80	2.81	14.26	2.82	14.17
Borrowing from local private commercial banks	5.46	18.29	4.16	16.07	8.20	22.23	7.85	21.36	9.69	24.63	8.84	24.00	11.23	25.42	12.02	26.66
Borrowing from state-owned banks, including state development banks	3.20	14.83	2.92	14.45	2.79	13.08	4.88	17.94	1.90	11.29	1.62	10.61	2.39	12.24	2.66	13.26
Borrowing from foreign banks	1.51	10.20	0.89	8.16	2.22	11.83	3.35	14.88	1.65	10.98	1.21	9.52	2.08	12.11	3.54	15.89
Loans from family/friends	4.30	16.64	5.73	19.12	1.68	9.34	1.02	8.49	2.79	13.16	3.71	15.11	1.19	8.61	0.20	2.61
Money lenders or other informal sources (other than family/friends)	1.10	7.68	1.37	8.67	0.68	5.37	0.50	5.18	0.74	6.32	0.83	6.72	0.68	5.92	0.34	4.06
Trade credit from suppliers	1.95	10.12	1.81	9.74	2.57	11.88	1.83	9.38	1.38	8.58	1.31	8.57	1.41	8.60	1.76	8.57
Trade credit from customers	1.12	7.92	0.94	7.28	1.47	8.75	1.55	9.47	0.66	5.74	0.56	5.53	0.86	6.01	0.84	6.46
Credit cards	0.29	4.24	0.40	5.12	0.08	1.36	0.07	1.62	0.19	3.34	0.21	3.64	0.16	2.54	0.14	2.78
Leasing arrangement	3.96	15.93	3.96	16.26	3.77	14.87	3.93	14.88	3.76	15.67	3.31	14.93	4.79	17.49	4.57	16.29
The government (other than state-owned banks)	1.90	12.63	1.08	9.64	3.14	15.87	4.00	18.31	1.30	10.09	0.66	7.18	2.13	12.52	3.63	17.28
Other	2.81	15.47	2.19	13.67	3.70	17.79	3.86	17.78	1.78	12.45	1.57	11.97	1.89	12.33	2.90	15.31
Sum	100.00		100.00		100.00		100.00		100.00		100.00		100.00		100.00	

Source: Author's calculations with BEEPS 2004 dataset.

Table 15: Sources of finance for new investments in industrialised countries

	All firms		Small firms		Medium firms		Large firms	
	1,890 obs		1,450 obs		212 obs		228 obs	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Internal funds/Retained earnings	57.28	39.97	60.10	40.26	50.32	37.44	45.88	37.70
Equity (i.e. issue new shares)	7.72	19.30	7.52	19.49	8.14	18.71	8.64	18.63
Borrowing from local private commercial banks	15.45	27.72	14.48	27.92	17.77	27.26	19.50	26.50
Borrowing from foreign banks	1.17	7.84	0.66	7.07	2.57	9.47	3.14	10.08
Borrowing from state-owned banks, including state development banks	3.23	14.27	2.01	11.46	5.64	19.16	8.73	21.70
Loans from family/friends	0.98	6.83	1.23	7.75	0.09	1.37	0.20	1.27
Money lenders or other informal sources (other than family/friends)	0.03	1.03	0.04	1.17	0.00	0.00	0.00	0.00
Trade credit from suppliers	3.20	12.26	3.39	13.01	3.42	11.08	1.78	7.45
Trade credit from customers	0.35	4.48	0.35	4.82	0.57	4.21	0.15	1.36
Credit cards	0.63	3.80	0.71	4.04	0.52	3.40	0.26	2.28
Leasing arrangement	8.82	20.31	8.51	19.97	10.12	22.14	9.60	20.68
The government (other than state-owned banks)	0.47	5.48	0.32	5.01	0.40	2.75	1.47	9.01
Other	0.65	7.33	0.68	7.76	0.45	3.82	0.66	7.02
Sum	100.00		100.00		100.00		99.34	

Source: Author's calculations with BEEPS 2004 dataset.

Particularly interesting is the share of bank financing. Tables sixteen and seventeen show the share of borrowing from banks in total finance for firms in TCs and industrialised countries (extracted from tables twelve to fifteen). In 2005, 9.7 per cent of working capital of firms in TCs was financed on average by local private commercial banks, state-owned banks and foreign banks,

and 13.2 per cent of long-term financing came from these banks. This reflects the still relatively low level of financial deepening in most TCs, which is also apparent in their low bank lending to GDP ratios discussed before (cf. section two). The low levels of bank finance in TCs contrast with the role of bank lending in industrialised countries, where on average 15.1 per cent of firm's working capital and 19.9 per cent of new investment is financed by banks. That is, the shares of bank finance are about fifty per cent higher in industrialised countries.

Table 16: Borrowing from banks in transition countries, 2002 and 2005

Borrowing from banks for working capital as per cent of total financing								
	2002				2005			
	All firms	Small firms	Medium firms	Large firms	All firms	Small firms	Medium firms	Large firms
	5,991 obs	4,050 obs	1,101 obs	811 obs	8,887 obs	6,269 obs	1,762 obs	856 obs
Borrowing from local private commercial banks	4.52	3.32	6.89	7.25	7.09	5.94	9.09	11.44
Borrowing from state-owned banks, including state development banks	2.67	2.07	2.98	5.20	1.57	1.28	2.36	2.11
Borrowing from foreign banks	0.90	0.61	1.22	1.86	1.05	0.74	1.37	2.71
Borrowing from banks (local, state, foreign)	8.09	6.00	11.09	14.32	9.72	7.96	12.82	16.26

Borrowing from banks for new investment as per cent of total financing								
	2002				2005			
	All firms	Small firms	Medium firms	Large firms	All firms	Small firms	Medium firms	Large firms
	4,150 obs	2,726 obs	797 obs	606 obs	6,506 obs	4,409 obs	1,398 obs	699 obs
Borrowing from local private commercial banks	5.46	4.16	8.20	7.85	9.69	8.84	11.23	12.02
Borrowing from state-owned banks, including state development banks	3.20	2.92	2.79	4.88	1.90	1.62	2.39	2.66
Borrowing from foreign banks	1.51	0.89	2.22	3.35	1.65	1.21	2.08	3.54
Borrowing from banks (local, state, foreign)	10.17	7.97	13.20	16.09	13.24	11.67	15.70	18.22

Source: Author's calculations with BEEPS 2002 and 2005 datasets.

With respect to firm size, we also see significant differences in bank financing. In 2005, large firms' borrowing from banks for working capital as share of total financing was about double when compared with small firms in TCs. The role of bank financing for new investment in TCs in 2005 was similarly uneven, with 11.7 per cent of small firm investment financed by banks, contrasted with 15.7 per cent for medium-sized firms and 18.2 per cent for large firms. Table seventeen shows that the same patterns holds for industrialised countries, where small firms finance 13.6 (17.2) per cent of working capital (new investment) through banks, compared with 17.6 (26.0) per cent for medium-sized firms and 23.9 (31.4) per cent for large firms. The fact that small firms finance a considerably lower share of their operations and new investments through banks than do medium and large firms therefore seems to be nothing characteristic of TCs' financial systems. Rather, the

lower level of bank financing in TCs can be attributed to the still much lower level of financial deepening, even after more than 15 years of economic transition.

Table 17: Borrowing from banks in industrialised countries, 2004

Borrowing from banks for working capital as per cent of total financing				
	All firms	Small firms	Medium firms	Large firms
	3,875 obs	3,016 obs	488 obs	371 obs
Borrowing from local private commercial banks	12.10	11.12	13.67	18.04
Borrowing from foreign banks	0.68	0.40	1.43	1.99
Borrowing from state-owned banks, including state development banks	2.28	2.05	2.53	3.84
Borrowing from banks (local, foreign, state)	15.06	13.57	17.64	23.87

Borrowing from banks for new investment as per cent of total financing				
	All firms	Small firms	Medium firms	Large firms
	1,890 obs	1,450 obs	212 obs	228 obs
Borrowing from local private commercial banks	15.45	14.48	17.77	19.50
Borrowing from foreign banks	1.17	0.66	2.57	3.14
Borrowing from state-owned banks, including state development banks	3.23	2.01	5.64	8.73
Borrowing from banks (local, foreign, state)	19.86	17.15	25.98	31.37

Source: Author's calculations with BEEPS 2004 dataset.

A low level of bank financing need not necessarily imply that it is difficult to obtain a bank loan, as it could also be the result of a preference for other means of financing. Yet the shares of equity finance, even though it increased between 2002 and 2005, or leasing arrangements – another common way of firm financing – are also well below the levels of industrialised countries. The fact that about 60 per cent of small firms in the CEB and SEE countries and about 70 per cent of small firms in the CIS countries had no bank loans in 2005 – compared to less than 40 per cent in Germany – is a strong indication that access to bank finance is severely constrained in those countries (table eighteen). Table eighteen also shows that about half of the firms that had no bank loans claimed that they were unable to obtain one. For the other half – which might be able to obtain a loan – the conditions were seemingly not attractive enough.

Table 18: Financially constrained firms, in per cent

	Small firms		Medium firms		Large firms	
	Without bank loans	Unable to obtain bank loans	Without bank loans	Unable to obtain bank loans	Without bank loans	Unable to obtain bank loans
CEB 2005	60.8	27.3	41.9	13.1	29.2	7.4
SEE 2005	59.7	29.1	39.8	15.9	32.1	11.0
CIS 2005	67.5	34.9	51.5	24.4	45.8	13.4
Germany 2004	37.2	14.6	24.6	9.8	15.3	4.8

Summing up, the statistical analysis of the BEEPS data so far has revealed two distinct patterns. First, small firms on average perceive access to and cost of finance to be more of a problem than do medium firms, which in turn seem to face more problems than large firms. This pattern is the same for firms in industrialised countries, but on a considerably lower level. The conditions for access to and costs of finance have, however, improved between 2002 and 2005. While the differences in perceived problems in access to and costs of finance with respect to firm size do not seem grave, they become more important when the second finding in the BEEPS data is taken into account: a significant difference in sources of finance, with smaller firms financing a considerably higher proportion of working capital and new investment through internal sources and a much lower share through banks.

4. Determinants of finance

We now turn to an empirical examination of the determinants of access to and cost of finance. The statistical analysis of the BEEPS data so far has shown that firm size seems to have a significant impact on firm's financing conditions. In the following, we combine the BEEPS data on access to and cost of finance of firms in TCs with other economic data to estimate the factors influencing firm's financing conditions.

4.1 Methodology, literature review and data

The literature on the determinants of firm financing highlights a multitude of factors, both internal to the firm and external. The way in which firms finance their operations depends in part on the internal resources available as well as on the firm's (or entrepreneur's) preferences.[14] Information on internal determinants of firm financing, however, is hard to obtain and is not included in the BEEPS data. In the following analysis, we thus focus – with the exception of firm size – exclusively on external factors that have been discussed in the literature as having an impact on financing conditions and for which proxies are available.

To inquire the determinants of access to finance we estimate the following model:

$$AF_{ij} = \alpha_1 \, FS_{ij} + \alpha_2 \, FD_j + \alpha_3 \, MACRO_j + \alpha_4 \, CON_j + \alpha_5 \, FBI_j + \alpha_6$$
$$CBC_j + \alpha_7 \, BRIE_j + \alpha_8 \, SOB_j + \varepsilon_{ij} \qquad\qquad (1)$$

where AF_{ij}: Access to finance of firm i in country j;

FS_{ij}: Firm size of firm i in country j;

FD_j: Financial deepening in country j;

$MACRO_j$: Macroeconomic environment in country j;

CON_j: Concentration in country j's banking sector;

FBI_j: Foreign bank involvement in country j;

CBC_j: Cross border credit extended to country j;

$BRIE_j$: Banking reform/institutional environment in country j; and

SOB_j: Role of state-owned banks in country j.

Because the dependent variable AF_{ij} is ordinal (i.e., 1 = no obstacle; 2 = obstacle; 3 = serious obstacle; 4 = major obstacle) we apply a qualitative response regression model, namely an ordered logit model.[15] It is important to note for the interpretation of this type of model that the parameter estimates cannot be directly interpreted as elasticities, but rather give an indication of the direction of the effects.

We also run the regression in the same specification as above, but use "cost of finance" as dependent variable, so that

$$CF_{ij} = \beta_1 \, FS_{ij} + \beta_2 \, FD_j + \beta_3 \, MACRO_j + \beta_4 \, CON_j + \beta_5 \, FBI_j + \beta_6$$
$$CBC_j + \beta_7 \, BRIE_j + \beta_8 \, SOB_j + \varepsilon_{ij} \qquad\qquad (2)$$

where CF stands for cost of finance, with everything else being same as before. Unless mentioned otherwise, we use data for 2005 (including BEEPS). The reasons for selecting the variables contained in (1) and (2) and the data used are described in the following.

Firm size

Because small firms tend to face greater informational barriers and higher fixed cost associated with accessing financial services, they are likely to experience greater credit constraints than large

firms.[16] Also, small (and young) firms often lack collateral and a credit history and are hence more risky for lenders. Creditors are thus inclined to prefer lending to larger customers. Stiglitz and Weiss (1981) have shown that with asymmetric information banks have a motive to ration credit demand, and because of their higher riskiness smaller firms are likely to be more affected by credit rationing than larger firms. The role of firm size will be also discussed in more detail below in the context of the *large-bank barriers* and the *foreign-owned-bank barriers hypotheses*.

As information on firm size is incorporated in the BEEPS data, we can easily include a firm size dummy in our regression. From the analysis in the preceding section we already know that small firms have less favourable financing conditions than large firms, so we should obtain a negative coefficient estimate in regressions (1) and (2), as an increase in the firm size variable on the right hand side (2 stands for small firms, 3 for medium firms and 4 for large firms) should lead to improved financing conditions (i.e., lower values for AF and CF).

Financial deepening

The more advanced the financial sector of its home country, the easier it should be for an individual firm to access finance. Deeper financial markets imply that more funds are obtainable through the financial sector, and hence firm (and household) financing should be more readily available. One widely used indicator of the size of financial intermediation is the private credit provided by deposit money banks and other institutions, divided by GDP. Because financial markets in most TCs are heavily dominated by the banking sector (cf. section two), domestic credit relative to GDP makes a useful proxy for financial deepening.[17] The data is the same as presented in table one.

Macroeconomic environment

Macroeconomic uncertainty makes business planning more difficult, affecting firms' investment decisions and financing behaviour (e.g., Federer, 1993; Servén, 1998; Baum et al., 2006). A volatile macroeconomic environment increases financing risk and therefore financial intermediaries will demand a higher risk premium or collateral from firms they extend loans to, making financing conditions dearer. Macroeconomic volatility should thus have a negative effect on access to and cost of finance. As

proxy for macroeconomic stability we take the CPI average for the period 2000-2005, using data from the IMF's International Financial Statistics. Higher values for the MACRO variable hence imply a higher inflation environment, and therefore the coefficient estimates for MACRO should be positive.

Concentration in the banking sector

Another factor influencing financing conditions might be concentration in the banking sector. The literature has identified two ways by which financial sector concentration could affect business lending. On the one hand, a high concentration in banking could have adverse effects especially for small firms through its effect on relationship lending,[18] so that the restructuring of the TCs' financial sectors might mostly benefit larger companies while SMEs will be left on their own. The reasoning is as follows: as pointed out by Chick (2000), financial markets are not like other businesses and competition cannot be expected to produce results similar to those in ordinary business. In particular, competition is likely to entail concentration in the banking sector. The central importance of banking is its relationship with other businesses. If banking becomes more concentrated – a process that can already be observed in the TCs as seen in section two – large companies will be favoured recipients of loans and other financial services whereas small and medium companies, especially in peripheral regions, might find it more difficult to get finance.[19]

The so-called *large-bank barriers hypothesis* postulates that large banks tend to have difficulty extending relationship loans to informationally opaque small businesses (Berger, Klapper and Udell, 2001). Large banks, which typically provide transaction lending and other wholesale capital market services to large corporate customers, tend to have organisational structures that are designed for efficient transaction-based lending. This lending is based on "hard" information such as quantitative financial ratios, collateral and credit scores. They often offer standardised credit policies based on easily observable, verifiable, and transmittable data. In contrast, relationship information often involves "soft" data, e.g. information about the character and reliability of the firm's owner, and may be more difficult to quantify, verify and communicate through the layers of management and ownership of large banking organisations (Berger and Udell, 2002). Furthermore, large banks may find it more difficult to engage in relationship lending than

locally-owned institutions, as relationship lending may require local knowledge which large banks that are headquartered away will find more difficult to build up (Berger, Klapper and Udell, 2001, p. 2131).[20] The *large-bank barriers hypothesis* thus predicts that higher concentration in banking would lead to a worsening of financing conditions of small firms, which in the BEEPS sample (as in the real world) make the majority of firms.

On the other hand, a high concentration in banking might create a quasi-monopolistic situation, which could help banks to establish a mutually beneficial relationship with firms. Petersen and Rajan (1995, p. 408) argue that because a "monopolistic creditor […] shares in the future surplus generated by the firm through the future rents she is able to extract", "she may be more willing to offer credit than a similarly placed lender in a competitive market. In other words, credit market competition imposes constraints on the ability of the firm and creditor to intertemporally share surplus. This makes lending relationships less valuable to a firm because it cannot expect to get help when most in need."[21] Petersen and Rajan (1995) are able to show that significantly more young (and small) firms in the US obtain external financing in regions of the US with concentrated markets than in regions with competitive markets. Hence, the *monopolistic-creditor hypothesis* would predict a positive effect of increased concentration in the banking sector on financing conditions.

Thus, the literature points to two different effects of banking concentration on relationship lending and thus on the financing conditions of businesses. To analyse the effect of concentration with the BEEPS data, we use the share of assets of the five largest banks in total banking assets as presented in table six as a proxy for concentration in banking.

Foreign bank involvement

Similarly, the involvement of foreign banks could have different effects. On the one hand, they are likely to bring innovation and spur the efficiency of financial intermediaries and markets of financially less developed countries and thus improve financing conditions. With the entry of foreign financial intermediaries, domestic institutions will find themselves exposed to increased competitive pressure from more sophisticated and cheaper foreign intermediaries. Banks that extend their operations abroad are

likely to be among the most efficient in their home country and can be expected to outperform the local banks. This is likely to set new standards in management and efficiency, and enhance the quality and range of financial products offered. Foreign institutions may choose to enter the market via direct penetration or cross-border acquisitions of intermediaries. Domestic institutions will increasingly face pressure to improve their own efficiency by cost-cutting and organisational restructuring to secure profitability. The competitive pressure should thus erode the local banks' rents and lead to a more efficient financial market with better credit conditions for domestic firms and households.[22]

On the other hand, a dominance of foreign banks could also turn out to be problematic if they cherry-pick their clients. The *foreign-owned-bank barriers hypothesis* states that foreign-owned banks are less likely to lend to informationally opaque small businesses than domestically-owned banks (cf. Berger, Klapper and Udell, 2001, pp. 2133-2135). The argument is similar to the *large-bank barriers hypothesis*: because banks entering a foreign market are likely to be large and headquartered far away from small local businesses, they will find it difficult to extend relationship lending to these borrowers. In addition, cultural and language barriers, as well as non-familiarity with the local markets, may make it more difficult and hence costly to gather and process locally-based relationship information. However, a qualification needs to be made concerning the way foreign banks enter the market. A major reason for market entry through the acquisition of domestic banks is to get hold on the local knowledge of the bank's management and staff and the already existing business relations of these banks. One would thus expect foreign banks to carefully maintain this local knowledge, making the argument of the *foreign-owned-bank barriers hypothesis* a less strong one if they enter the market through M&As. [23]

To measure the effect of foreign bank involvement of financing conditions, we include the data on the assets of foreign-owned banks relative to assets of all banks that were presented in table three.

Cross-border bank lending

Cross-border credit provides an additional means of finance; firms might bypass their home country's financial markets and

fully finance their operations through foreign financial markets or, more likely, seek complementary finance abroad. The option of obtaining finance abroad, of course, refers not only to cross-border banking activities but also to the possibility of placing bonds in foreign markets or seeking listings in the securities markets of the major financial centres. As before, we will focus on banking activities and thus add cross-border credit to specifications (1) and (2), using the data on foreign claims of BIS reporting banks relative to GDP as presented in table nine. Because an increase in cross-border credit flowing into the economy should improve financing conditions for domestic firms, the estimates for the CBC coefficients should be negative. One caveat here, however, is that the BIS Consolidated Banking Statistics (as mentioned earlier) also comprises local lending by foreign bank subsidiaries, i.e., parts of the lending included in the FBI measure is included here as well.

Banking reform/institutional environment

There is a vast literature that has studied the relationship between law and finance and how the legal and institutional framework affect the development of an economy's financial system.[24] The consensus view that has emerged is that a deficient legal system and a weak institutional environment cause financial sector distortions and thus impede financing conditions. Conversely, a better legal and institutional environment should lead to better financing conditions. As a proxy for the institutional environment in TCs, we can handily use the EBRD transition indicators for reform in banking as presented in table seven.

Role of state-owned banks

Lastly, we include a variable describing the importance of state-owned banks in TCs. The impact of state-owned banks on financing conditions is not obvious. From one perspective, state-owned banks might lead to misallocation of resources by engaging in directed lending. In the worst case, state-owned banks could be misused for political lending or even nepotism. Moreover, because state-owned banks in most cases are not exposed to full market competition, they might have a tendency for being sluggish, distorting the efficient allocation of capital. La Porta, Lopez De Silanes and Shleifer (2002) provide empirical support for this view.

On the other hand, state-owned banks are less subject to pressure from capital markets and might have objectives other than increasing their profit, i.e., they might have the political mandate to help the development of particular sectors with long-term importance to a country's economic development or to foster the finance of small firms that otherwise might have problems obtaining a loan. Moreover, Micco and Panizza (2006) show that state-owned banks may play a useful credit-smoothing role over the business cycle because their lending is less responsive to macroeconomic shocks than the lending of private banks. From this angle, the involvement of state-owned banks could have positive effects on the financing conditions of businesses, particularly those of smaller firms.[25] To examine the effect of state-owned banks we add a variable for the asset share of state-owned banks as per cent of total bank assets (cf. table two) to our specifications (1) and (2).

4.2 Results

The estimation results are presented in tables nineteen and twenty. Because a lower value for AF (CF) means that a firm is experiencing less problems with access to finance (cost of finance), a negative coefficient in table nineteen (twenty) means an improvement in financing conditions. The results for the determinants of access to finance presented in table nineteen are pretty consistent and robust. Column I shows the baseline scenario, i.e., the results if all variables in equation (1) are included. As expected, firm size has a negative coefficient, which means that the larger the firm the less problems it is likely to have with accessing finance. When omitting other variables as in columns III to IX to check for robustness, the coefficient for firm size remains unchanged and highly significant.

The results for the other variables in table nineteen are equally robust, except for foreign bank involvement and cross-border credit (which will be discussed in more detail below). As predicted by theory, more macro volatility has a negative effect (and thus a positive coefficient estimate) on access to finance. Surprisingly, we find positive coefficients also for banking reform for all regressions, which suggests that reforms in the banking sector's institutional environment have actually worsened access to finance – contradictory to what the "law and finance" literature would suggest. There are at least three possible explanations for this result. First, reforms in bank's institutional environment might have

caused a period of reshuffling, where banks had to adjust to new legislation and regulation, so that the positive effects of banking reforms only come to the fore in the medium run.[26] The second explanation is that new regulations and banking supervision have caused banks to introduce standardised credit procedures based on easily observable, verifiable, and transmittable data to comply with the new rules of the game. According to this explanation, which follows the argumentation of the *large-bank barriers hypothesis*, relationship lending would lose importance, which would mostly harm small firms, which constitute the majority of businesses. A third explanation is that banking reform has reduced the problem of soft budget constraints, where unprofitable (often state-owned) enterprises receive too much credit from state-owned banks.[27]

The results for the effect of financial deepening are again as expected; deeper financial markets improve access to finance. A variable where the effect should be unambiguous (i.e., the coefficient should be negative) is cross-border credit. And yet in two out of eleven regressions we get a positive coefficient, which might be due to specification problems or the way we constructed the variable.

Regarding the effect of state-owned banks, the estimates suggest that a higher asset share of state-owned banks as per cent of total bank assets goes along with less favourable conditions for firms' access to finance. As the TCs with the highest shares of state-owned banks are indeed the ones with the lowest levels of domestic credit to GDP ratio and the weakest institutional environment, a high level of state-bank involvement might also be an indication for misguided financial market reform (or even complete lack of reform).

According to the estimates in table nineteen, concentration in the banking sector apparently improves firms' access to finance, supporting Petersen and Rajan's (1995) *monopolistic-creditor hypothesis*. This result is interesting as it stands in contrast to a relative large sample of studies in support of the *large-bank barriers hypothesis* (cf. footnote nineteen).

Turning to the effect of foreign bank involvement on access to finance, we get positive coefficients for all regressions but one (in column VIII, where the variable for state-owned banks is omitted). The results of eight out of nine regression thus suggest

that an increased activity of foreign banks impedes firms' access to finance, giving support to the *foreign-owned-bank barriers hypothesis*. To analyse the effect of an increase in foreign bank activity for firms of different size, we construct a new variable, FBI*FS, which is nothing but the product of the firm size variable with the foreign bank involvement variable. Adding this variable to the baseline scenario yields the result presented in column X. The estimates for the other variables are virtually unchanged, but now we also obtain a negative estimate for FBI*FS. This can be interpreted as follows: the larger the firm and the higher the involvement of foreign banks, the better this firm's access to finance. In other words, regression X suggests that large firms will benefit from foreign bank activity, whereas foreign bank involvement has no positive effect for smaller firms. In column X, the estimate for FBI*FS is not significant, but if we omit FS and FBI, FBI*FS becomes significant at the 1 per cent level.

The estimates for the determinants of cost of finance presented in table twenty are virtually the same as those in table nineteen and confirm the patterns just described. Small firms face higher charges than large firms; a dominance of foreign and state-owned banks tends to make finance more costly; and foreign bank activity disproportionately favours larger firms.

Table 19: Determinants of access to finance (AF)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
No. of obs	7,136	7,137	7,136	7,136	8,083	7,136	7,136	7,699	7,136	7,136	7,136
FS	-0.2916***		-0.2921***	-0.2922***	-0.2333***	-0.2932***	-0.2892***	-0.2792***	-0.2893***	-0.2453***	
	(0.0336)		(0.0336	(0.0336)	(0.0312)	(0.0336)	(0.0336)	(0.0321)	(0.0336)	(0.0660)	
FBI	0.1157	0.1372		0.0231	0.4469***	0.3650***	0.8003***	-0.0992	0.2435*	0.3231	
	(0.1375)	(0.1373)		(0.1122)	(0.1221)	(0.1325)	(0.1061)	(0.1267)	(0.1359)	(0.2898)	
CBC	-0.0031	-0.0035	-0.0018		-0.0050**	0.0053**	-0.0171***	-0.0005	-0.0150***	-0.0031	0.0037
	(0.0027)	(0.0027)	(0.0022)		(0.0025)	(0.0024)	(0.0021)	(0.0023)	(0.0024)	(0.0027)	(0.0024)
MACRO	0.0137***	0.0129***	0.0141***	0.0138***		0.0076***	0.0099***	0.0214***	0.0105***	0.0138***	0.0150***
	(0.0026)	(0.0026)	(0.0026)	(0.0026)		(0.0025)	(0.0026)	(0.0024)	(0.0026)	(0.0026)	(0.0026)
BRIE	0.6896***	0.6963***	0.7089***	0.6413***	0.4559***		0.5173***	0.7373***	1.0253***	0.6889***	0.7943***
	(0.0951)	(0.0950)	(0.0922)	(0.0855)	(0.0802)		(0.0935)	(0.0843)	(0.0879)	(0.0951)	(0.0929)
FD	-0.0241***	-0.0238***	-0.0257***	-0.0264***	-0.0194***	-0.0185***		-0.0296***	-0.0179***	-0.0241***	-0.0327***
	(0.0031)	(0.0031)	(0.0024)	(0.0023)	(0.0028)	(0.0030)		(0.0030)	(0.0030)	(0.0031)	(0.0027)
SOB	0.0113***	0.0115***	0.0108***	0.0106***	0.0132***	0.0084***	0.0148***		0.0139***	0.0113***	0.0087***
	(0.0017)	(0.0017)	(0.0016)	(0.0015)	(0.0014)	(0.0016)	(0.0016)		(0.0016)	(0.0017)	(0.0016)
CON	-0.0185***	-0.0184***	-0.0187***	-0.0196***	-0.0173***	-0.0240***	-0.0152***	-0.0154***		-0.0185***	-0.0194***
	(0.0020)	(0.0020)	(0.0020)	(0.0017)	(0.0019)	(0.0018)	(0.0019)	(0.0017)		(0.0020)	(0.0020)
FS*FBI										-0.0877	-0.2053***
										(0.1078)	(0.0400)

Source: Author's calculations.

Note: Standard errors are in parentheses. *** denotes statistical significance at the 1 per cent level, ** at the 5 per cent level and * at the 10 per cent level.

Table 20: Determinants of cost of finance (CF)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
No. of obs.	7,207	7,208	7,207	7,207	8,150	7,207	7,207	7,754	7,207	7,207	7,207
FS	-0.2596***		-0.2596***	-0.2596***	-0.2035***	-0.2609***	-0.2608***	-0.2388***	-0.2621***	-0.1319**	
	(0.0327)		(0.0327)	(0.0327)	(0.0305)	(0.0327)	(0.0327)	(0.0313)	(0.0327)	(0.0651)	
FBI	0.2108	0.2134		-0.0447	0.6091***	0.4334***	0.6409***	0.1179	0.3486***	0.7758***	
	(0.1343)	(0.1342)		(0.1099)	(0.1202)	(0.1290)	(0.1039)	(0.1250)	(0.1335)	(0.2832)	
CBC	-0.0085***	-0.0086***	-0.0062***		-0.0109***	-0.0017	-0.0171***	-0.0084***	-0.0227***	-0.0085***	-0.0013
	(0.0026)	(0.0026)	(0.0021)		(0.0024)	(0.0023)	(0.0020)	(0.0022)	(0.0023)	(0.0026)	(0.0023)
MACRO	0.0084***	0.0079***	0.0090***	0.0086***		0.0030	0.0059**	0.0138***	0.0047*	0.0084***	0.0099***
	(0.0026)	(0.0026)	(0.0026)	(0.0026)		(0.0025)	(0.0026)	(0.0024)	(0.0026)	(0.0026)	(0.0026)
BRIE	0.5906***	0.5967***	0.6286***	0.4609***	0.4162***		0.4708***	0.6883***	1.0057***	0.5882***	0.7093***
	(0.0937)	(0.0936)	(0.0904)	(0.0849)	(0.0793)		(0.0911)	(0.0834)	(0.0864)	(0.0937)	(0.0914)
FD	-0.0152***	-0.0154***	-0.0183***	-0.0218***	-0.0116***	-0.0102***		-0.0187***	-0.0082***	-0.0152***	-0.0246***
	(0.0030)	(0.0030)	(0.0023)	(0.0023)	(0.0028)	(0.0029)		(0.0029)	(0.0030)	(0.0030)	(0.0027)
SOB	0.0070***	0.0072***	0.0061***	0.0049***	0.0089***	0.0045***	0.0091***		0.0102***	0.0069***	0.0044***
	(0.0017)	(0.0017)	(0.0016)	(0.0015)	(0.0014)	(0.0016)	(0.0016)		(0.0016)	(0.0017)	(0.0016)
CON	-0.0227***	-0.0228***	-0.0229***	-0.0258***	-0.0228***	-0.0274***	-0.0207***	-0.0192***		-0.0227***	-0.0236***
	(0.0020)	(0.0019)	(0.0019)	(0.0017)	(0.0018)	(0.0018)	(0.0019)	(0.0017)		(0.0020)	(0.0019)
FS*FBI										-0.2359**	-0.1829***
										(0.1041)	(0.0382)

Source: Author's calculations.

Note: Standard errors are in parentheses. *** denotes statistical significance at the 1 per cent level, ** at the 5 per cent level and * at the 10 per cent level.

5. Summary and conclusions

The analysis of the BEEPS has shown that firm's financing conditions in TCs are still considerably constrained. While progress has been made in establishing market-based financial systems, a large share of firms in TCs still has no bank loans – either because they get excluded from bank finance or because conditions are unfavourable. Particularly smaller firms face restrictions in access to finance, with about 60 per cent of small firms in the CEB and SEE countries and about 70 per cent of small firms in the CIS countries having no bank loan in 2005.

To analyse the determinants of access to and cost of finance we combined the BEEPS data with variables such as foreign bank ownership and concentration in the banking sector and estimated an ordered logit model. The results indicate that a heavy reliance on foreign and state-owned banks have adverse effects on the average firms' financing conditions. Albeit the entry and operations of foreign banks should also have positive effects such as a transfer of knowledge to and an increase in the efficiency of TCs' financial sectors, foreign bank activity seems to benefit only larger firms, with smaller firms being more or less left out. A further finding is that, according to our estimates, a higher concentration in the banking sector improves financing conditions for firms, as suggested by the *monopolistic-creditor hypothesis*.

One should be cautious, however, to mechanistically interpret these findings – in the sense that a policy conclusion is drawn that, for example, state-owned banks should be privatised or that the role of foreign banks should be limited. As discussed, the effects of foreign bank entry, for instance, are multiple and foreign banks can also bring important benefits in terms of improved financial technology and efficiency to the respective host economies. Also, the EBRD's 2005 survey on banking activities in TCs suggests that the lending behaviour of banks – especially of domestic private and newly created foreign banks – is changing and that their focus is slowly shifting away from lending to large and foreign enterprises towards SME lending (de Haas, Ferreira and Taci 2007). Nevertheless, the fact that a large proportion of firms in TCs – and especially small firms – still has no or only limited access to the formal financial sector is striking and should give cause for concern. Policymakers and financial market regulators in TCs, as well as international financial institutions, ought to provide a framework in which banks, be they domestic or international, have an incentive to extend credit to all types of customers.

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Endnotes

[1] The notion that financial development stimulates economic growth dates back to Adam Smith (1776, p. 394), who noted that once the first banks had been established in Scotland, "trade and industry […] increased very considerably" and "that banks have contributed a good deal to this increase, cannot be doubted". Walter Bagehot (1873) and Joseph Schumpeter (1912) similarly stressed a positive causal relationship between financial development and economic activity.

[2] With TCs this paper refers to the 28 countries of central eastern Europe and the Baltic states (CEB: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovak Republic, Slovenia), south-eastern Europe (SEE: Albania, Bosnia and Herzegovina (B&H), Bulgaria, Croatia, FYR Macedonia, Montenegro, Romania, Serbia) and the Commonwealth of Independent States (CIS: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan).

[3] Different approaches were taken for the transition from a socialist mode of production to market-oriented systems, ranging from more cautious and gradual approaches to market reform as in most CEB countries to the "big bang" strategy pursued in the Soviet Union/Russia.

[4] Data for Turkmenistan is available only until 2003 and for Uzbekistan until 2004.

[5] Cross-border bank lending will be looked at in section 2.4.

[6] Banks are classified as foreign-owned if foreign ownership exceeds 50 per cent.

[7] The classification system for the banking reform and interest rate liberalisation indicator is as follows: 1) Little progress beyond establishment of a two-tier-system. 2) Significant liberalisation of interest rates and credit allocation; limited use of directed credit or interest rate ceilings. 3) Substantial progress in establishing bank solvency and of a framework for prudential supervision and regulation; full interest rate liberalisation with little preferential access to cheap refinancing; significant lending to private enterprises and significant presence of private banks. 4) Significant movement of banking laws and regulation towards BIS standards; well-functioning banking competition and effective prudential supervision; significant term lending

to private enterprises; substantial financial deepening. 4+) Standards and performance norms of advanced industrial economies: full convergence of banking laws and regulations with BIS standards; provision of full set of competitive banking services. The classification system for the securities markets and non-bank financial institutions indicator is: 1) Little progress. 2) Formation of securities exchanges, market-makers and brokers; some trading in government paper and/ or securities; rudimentary legal and regulatory framework for the issuance and trading of securities. 3) Substantial issuance of securities by private enterprises; establishment of independent share registries, secure clearance and settlement procedures, and some protection of minority shareholders; emergence of non-bank financial institutions (e.g. investment funds, private insurance and pension funds, leasing companies) and associated regulatory framework. 4) Securities laws and regulations approaching IOSCO standards; substantial market liquidity and capitalisation; well-functioning non-bank financial institutions and effective regulation. 4+) Standards and performance norms of advanced industrial economies: full convergence of securities laws and regulations with IOSCO standards; fully developed non-bank intermediation (EBRD, 2006, p. 198-199).

[8] For an analysis of financial market integration of CEB and SEE countries into western European financial markets see Volz (2004).

[9] Commercial banks and other deposit-taking institutions in 27 jurisdictions report to the BIS Consolidated Banking Statistics, which are estimated to cover more than 95 per cent of international banking business. For details on the compilation of the BIS Consolidated Banking Statistics see BIS (2003).

[10] The 26 countries covered in the BEEPS 2002 and 2005 surveys are the same TCs listed in footnote one with the exception of Turkmenistan. In the surveys, Serbia and Montenegro were still treated as one unit; hence we have 26 countries instead of 28. The BEEPS 2002 and 2005 were also conducted in Turkey, which is excluded in the following analysis.

[11] The 2004 BEEPS covers also Vietnam, which was excluded here.

[12] Firms with less than two or more than 10,000 employees were excluded from the BEEPS.

[13] From a survey of new firms in TCs Johnson, McMillan and Woodruff (2002) find that little demand for external finance is also due to weak property rights which discourage firms from investing, even when bank loans are available.

[14] See, for example, Opler et al. (1999). For a discussion of target capital structures in TCs see chapter four of de Haas (2005).

[15] See, for instance, Liao (1994).

[16] See, for example, Beck and Demirgüç-Kunt (2006) and Beck, Demirgüç-Kunt and Maksimovic (2005, 2008).

[17] We also tried per capita income as a proxy for financial deepening, which yielded very similar results to those presented in tables nineteen and twenty.

[18] Under relationship lending, according to Berger, Klapper and Udell (2001, pp. 2129-2130), "information is gathered by the lender beyond the relatively transparent data available in the financial statements and other sources readily available at the time of origination. The information is gathered through contact over time with the firm, its owner, and its local community on a variety of dimensions. The lender may gather data from the provision of past loans and other services to the business. Information may also be garnered from contact with the borrower's customers and suppliers, and from the lender's knowledge of the borrower's interaction with the local community. This information is used in making additional decisions over time regarding renewals, additional loans, renegotiations, and monitoring strategies, and is not shared with other potential lenders. The production of relationship information is costly, and the costs are likely to be passed on to the relationship borrowers." The counterpart to relationship lending is pure transactions lending, under which due diligence and contract terms are based on information that is relatively easily on hand. Each transaction stands on its own, and information from the relationship between the lender and the borrower, if any, is irrelevant (Berger, Klapper and Udell, 2001, p. 2130).

[19] Petersen and Rajan (1994) show that a close lending relationship with an institutional creditor increases the availability of finance for small firms.

[20] A large body of empirical work seems to support the large-bank barriers hypothesis. For example, Berger, Kashyap and Scalise (1995) find that large banks in the US tend to devote a

lower proportion of their assets to small business lending than smaller institutions. Haynes, Ou and Berney (1999) find that large banks lend to larger, older and more financially secure businesses relatively more often than do small banks. That is, they seem to focus on firms that are most likely to receive transactions loans. Another study by Goldberg, Cole and White (2002) finds that large banks have a tendency to base their small business loan approval decisions more on financial ratios, while the existence of a previous relationship with the borrowing firm mattered more to small banks. A recent Bank Environment and Performance Survey (BEPS) conducted by the EBRD in 2005 with a random sample of 220 banks in 20 TCs also revealed that small banks devote a much higher share of their lending to SMEs than large banks (de Haas, Ferreira and Taci, 2007). For further references see Berger, Klapper and Udell (2001, pp. 2131-2133).

[21] Petersen and Rajan (1995, p. 408) note that this argument dates back to Schumpeter, who suggested that a monopolistic economy offers better incentives for innovation because an innovator can recoup her investment in research and development through future rents.

[22] Evidence suggests that the entry of foreign banks has had a positive impact on the efficiency and stability of TCs' banking sectors. See Bonin, Hasan and Wachtel (2005), Fries and Taci (2005), Fries et al. (2006) and de Haas and van Lelyveld (2006).

[23] Interestingly, the results of the already mentioned BEPS suggest that newly created foreign banks in TCs actually have a higher share of lending to SMEs than privatised foreign banks. Both newly created (41.1 per cent) and privatised foreign banks (27.0 per cent), however, still direct lower shares of their loan portfolios to SMEs than private domestic banks (47.0 per cent) (de Haas, Ferreira and Taci, 2007, p. 8). At large, empirical evidence seems to support the *foreign-owned-bank barriers hypothesis*. Clarke et al. (2001, p. 20), for example, note that "[i]n general, foreign banks appear to allocate greater shares of their lending portfolios to commercial and industrial loans, providing indirect evidence that foreign banks may be more important in the market for loans to large companies." De Haas and Naaborg (2005) find that albeit foreign banks in the TCs in many cases had a strong initial focus on multinationals and

large domestic companies, most have gradually started to lend more also to SMEs.

[24] The most prominent studies in this field are probably La Porta et al. (1998) and Levine (1998). For a discussion of the nexus between law, finance and economic growth in TCs see chapter two of de Haas (2005).

[25] Nitsch and Diebel (2007) give an interesting account of how state banks in China engage in a particular form of relationship lending, which they term "*guānxi* economics".

[26] Admittedly, this argument is not overly convincing as the transition process has been going on for quite a while now.

[27] On the soft budget constraint see Maskin (1999).

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