

IWH-FDI-Micro-Database

Representativeness

Survey 2010

In East Germany (including Berlin)

Halle Institute for Economic Research (IWH)

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Representativeness of the sample

In the following section, the representativeness of the survey 2010 will be discussed for each population. The survey will be split into two groups; on the one hand East German enterprises having one or more multinational investor(s). On the other hand, we will consider the population of East German enterprises holding capital shares abroad. The representativeness analysis of the samples will be done by analyzing the employment size, the industry of the enterprises, the regional distribution, and the ownership structure. In order to check the identity between the distribution of the sample and the population, a Chi-square-test will be applied. If the test statistics does not exceed the significance level of 5%, the null hypotheses will be rejected. In this case, one can assume that the sample is exposed to a different distribution compared to its population.

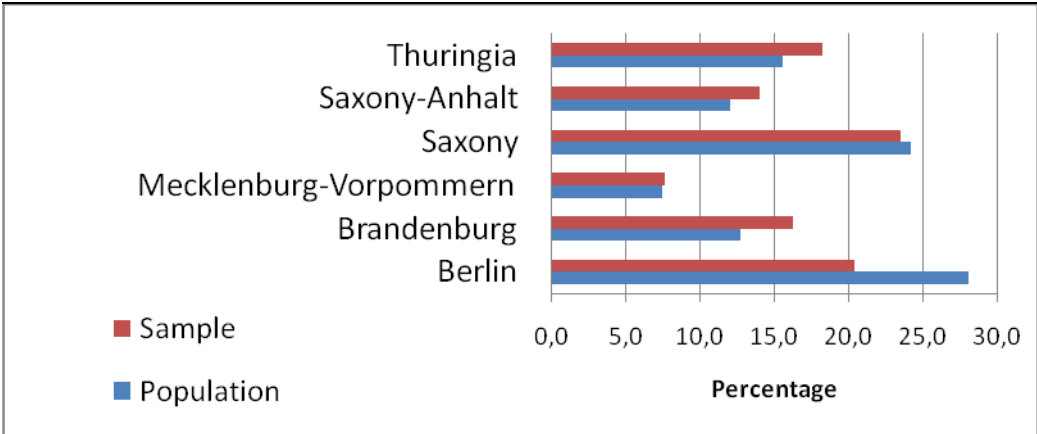
1. Investors in East Germany

1.1 Multinational investors

The majority of the enterprises with a multinational investor (see table A1 and graph 1) is located in Berlin (28%) followed by Saxony (24.1%), while the federal state of Mecklenburg-Vorpommern hosts only a share of 7.5% multinational investors. The states of Thuringia (15.6%), Brandenburg (12.7%), and Saxony-Anhalt (12%) account for the rest of the population of East German enterprises with a multinational investor.

Compared to the population of East German enterprises with a multinational investor, the regional figures of the sample show that companies in Berlin are underweight (-7.6%). Due to this decline, the federal state of Saxony comprises the largest share within the sample of East German subsidiaries of multinational investors (23.5%). The Chi-square-test indicates that the regional distribution of the sample differs significantly from the distribution of the population.

Graph 1: Regional distribution of East German enterprises with a multination investor

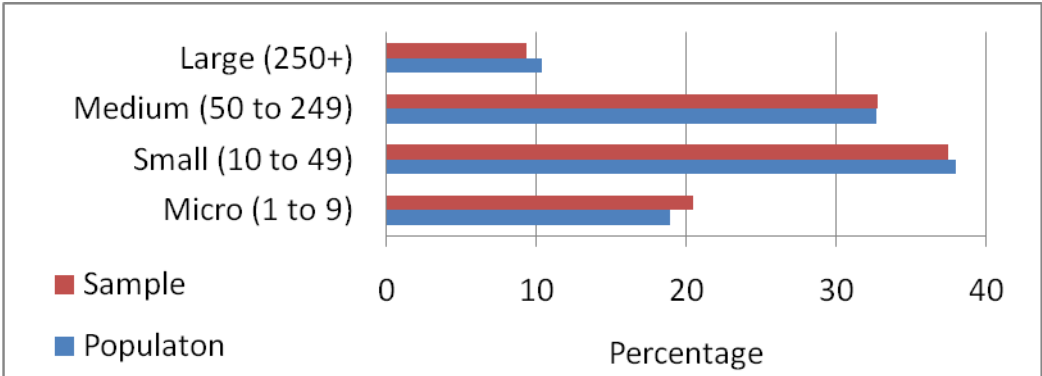


Source: IWH 2010

Following the regional distribution sorted by ROR¹, one can see that Berlin attracts most of the foreign investments (28%), while the region of Altmark accounts for only 0.7% of the multinational affiliates in East Germany. Furthermore, the figures show distinct regional agglomerations (see table A2). In Saxony, nearly three quarter of the enterprises with a multinational investor are located either in the region around Dresden (Oberes Elbtal/Westerzgebirge, 7.3%), or in the regions surrounding Leipzig (Westsachsen, 5.6%) and Chemnitz (Chemnitz/Erzgebirge, 5.3%). In Thuringia, the same structure can be observed since Ostthüringen and Mittelthüringen account for more than 10% of the population and around two thirds of the enterprises in the federal state. In Saxony-Anhalt, the regions around Halle/S. (4%) and Magdeburg (5.2%) host three quarter of the state’s population. In Brandenburg and Mecklenburg-Vorpommern, the regions of the Havelland-Fläming (4.3%) and Westmecklenburg (2.5%) attract most of the regions’ multinational investments. Compared to the population, the region of Berlin is underweight (-7.7%). Due to this sample deviation, the null hypothesis of an identical distribution can be rejected.

The majority of the population of East German enterprises with a multinational investor is classified as a micro- or small-sized enterprise with less than 50 employees (see table A9 and graph 2). The shares of large companies and medium-sized enterprises account for 10.4% or 32.7% of the population, respectively. In comparison with the complete East German economy, the enterprises with a multinational investor are considerably bigger. In addition to the regional figures above, these figures indicate a structural impact of multinational companies investing in East Germany. In the sample, micro enterprises are overweight (+1.5%), while large companies are slightly underrepresented (-1.0%). Hence, the Chi-Square test statistics leads to a non-rejection of the null hypothesis of an identical distribution.

Graph 2: Distribution per employment size of East German enterprises with a multination investor.



Source: IWH 2010

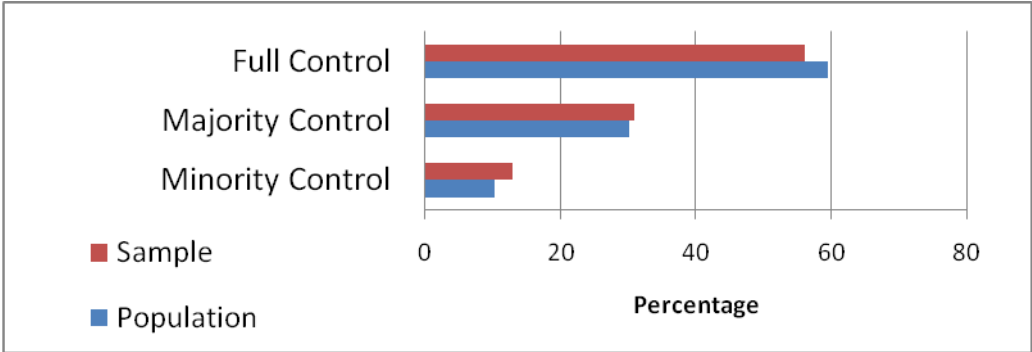
Most of the multinational affiliates (55.4%) belong to the service sector, while the rest (44.6%) of the enterprises are part of the industrial production. As this distribution remains nearly identical in the sample, the corresponding null hypothesis cannot be rejected (see table A13). Considering the sectoral distribution sorted by the 2-digit WZ 2003 Code (see table A14), the largest share of enterprises having a multinational investor belongs to the

¹ ROR is an abbreviation for Raumordnungsregionen, which divides East Germany into 23 regions.

sector of business service providers (WZ 2003 Code 74, 18.9%), followed by the wholesale sector (code 51) with a share of 12.7%. The sectors of metal processing (code 28, 6.1%) and mechanical engineering (code 29, 5.9%) are the strongest branches among the industrial production. Compared to the corresponding population, the sectors 27, 73, and 33 are overweight, while the sectors 15, 22, 24, 74, and 92 are slightly underweighted in the sample. Despite these deviations, the assumption of an identical distribution cannot be rejected.

The figures of the ownership structure depending on the capital share held by the investor, show that more than half of the East German enterprises with a multinational investor (59%) are absolutely owned by their investor (see table A21 and graph 3).² An additional share of 30% of the multinational investors holds a majority control over their affiliates in East Germany, while 10.3% of the investors hold a minority control. As the sample's deviation from its population is relatively small, the null hypothesis of an identical distribution cannot be rejected.

Graph 3: Distribution of East German enterprises with a multinational investor sorted by ownership structure.



Source: IWH 2010

1.2 Foreign Investors

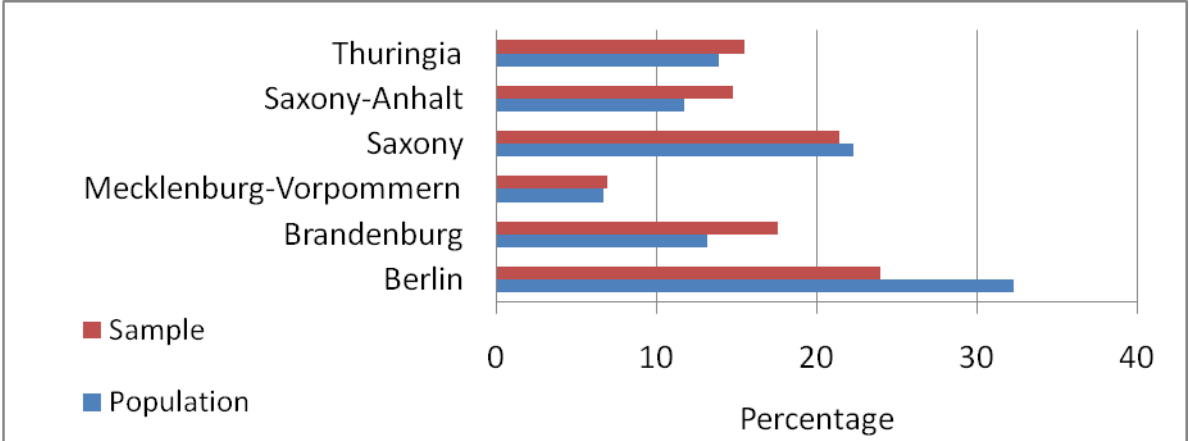
A population share of 32.3% of East German enterprises with a foreign investor is located in Berlin, followed by the federal states of Saxony (22.3%), Thuringia (13.9%), Brandenburg (13.2%), Saxony-Anhalt (11.7%), and Mecklenburg-Vorpommern (6.7%) (see table A2 and graph 4). In the corresponding sample of the survey, Berlin is underrepresented (-8.3%), while Brandenburg and Saxony-Anhalt are overweight (+4.4% and 3%, respectively). These differences are sufficient to reject the null hypothesis of an identical distribution.

On a regional level following the ROR described above, the distribution is exposed to distinct differences, as the share of the region of Berlin (32.3%) is nearly 50-times larger than the share of the region of Altmark (0.7%) (See table A2). In Saxony, the regions around Dresden (6.9%) and Leipzig (5.5%) are the driving forces of the federal state, while the regions of Ostthüringen (5.4%) and Mittelthüringen (4.1%) attract the majority of the foreign

² The difference between direct and indirect is neglected for this representativeness analysis.

investments in the state of Thuringia. In Saxony-Anhalt, the regions around the cities of Halle/S. (4.2%) and Magdeburg (5%) account for three quarter of the federal state’s FDI, while the regions of Havelland-Fläming (4.2%) and Westmecklenburg (2.2%) host the largest share of foreign investors in the state of Brandenburg or Mecklenburg-Vorpommern, respectively. In the sample, the region of Magdeburg (+2.1%), Havelland-Fläming (+1.7%), and Halle/S. (+1.5%) are overrepresented at the expense of the share of Berlin (-8.3%). Due to the distributional difference between the sample and the population, the assumption of an identical distribution is rejected.

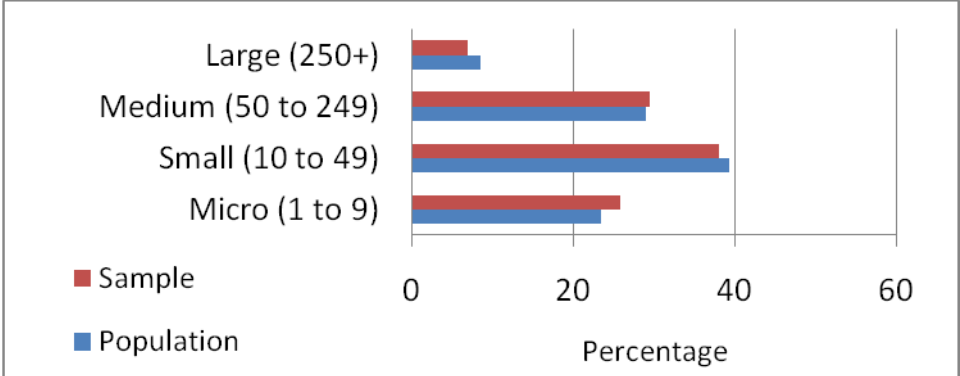
Graph 4: Regional distribution of East German enterprises with a foreign investor



Source: IWH 2010

Regarding the population of enterprises with a foreign investor ordered by employment size (see table A10 and graph 5), 39.2% of the firms are classified as small enterprises, followed by medium-sized firms with a share of 29% and large companies accounting for 8.5% of the population. In the sample, micro enterprises firms are slightly overweighed (+2.4%) at the expense of small and large companies (-1.3% and -1.5%, respectively). Thus, the null hypothesis cannot be rejected.

Graph 5: Distribution per employment size of East German enterprises with a foreign investor

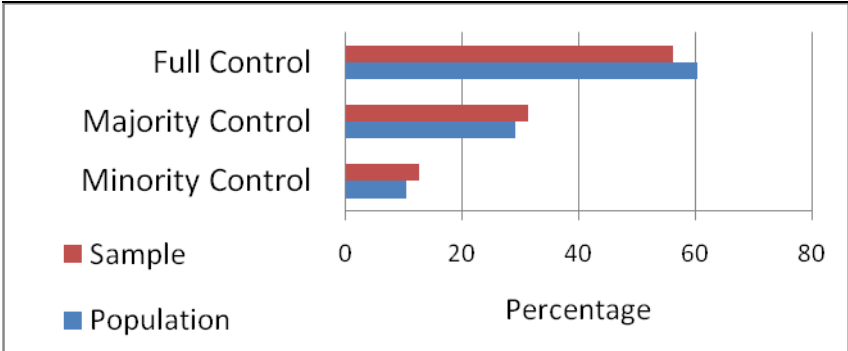


Source: IWH 2010

Among the East German enterprises with a foreign investor, a share of 58.7% belongs to the service sector, while 41.3% of the population’s enterprises are part of the industrial sector. Despite of an overrepresentation of the industrial sector (+3.3%), the null hypothesis of an

identical distribution can be rejected. The analysis of the sectoral distribution of foreign affiliates in East Germany basing on the 2-digit WZ 2003 Code (see table A15) leads to nearly the same results as the analysis of multinational affiliates, since business service providers (code 74, 21.5%) and the wholesale sector (code 51, 13.5%) account for the largest shares among East German subsidiaries of foreign investors. In the sample, the former one is underweighted in the sample (-2.7%) in favor of the manufactures of medical, precision and optical instruments, watches and clocks (code 33, +1.5%). The distributional differences are not pronounced enough to reject the assumption of an identical distribution.

Graph 6: Distribution of East German enterprises with a foreign investor sorted by ownership structure



Source: IWH 2010

Considering the distribution of FDI in East Germany sorted by the ownership structure (See table A22 and graph 6), one observes that 29% of the foreign investors hold a majority control in East Germany. An additional share of more than 60% of the East German enterprises is even completely owned by its foreign investor. As the sample hardly deviates from the corresponding population, the assumption of an identical distribution is not rejected.

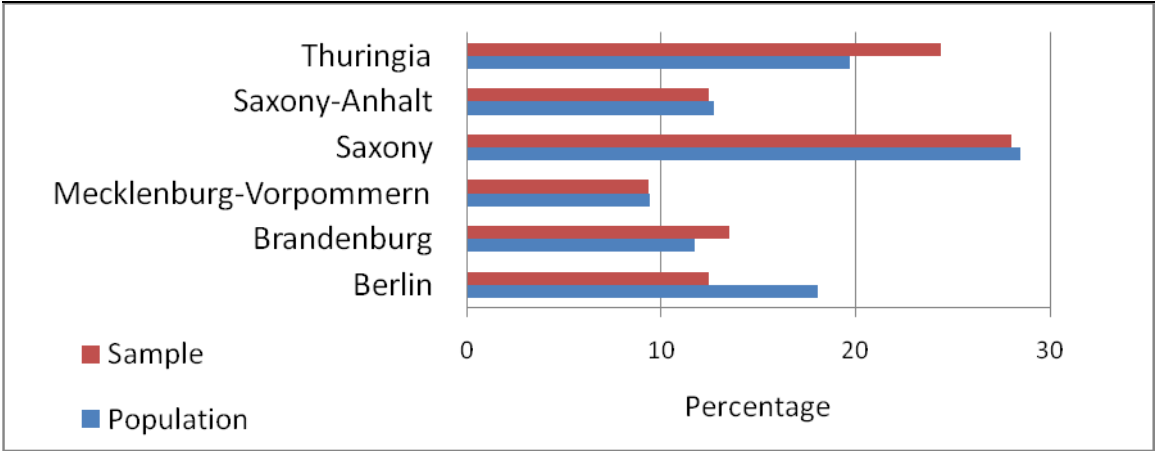
1.3 West German Multinational Investors

The population of East German enterprises with a West German investor indicates Saxony’s dominant position in East Germany, as the federal state attracts 28.5% of the investments coming from West Germany (see table A5 and graph 7), followed by Thuringia (19.7%) and Berlin (18%). The federal states of Saxony-Anhalt (12.7%), Brandenburg (11.7%), and Mecklenburg-Vorpommern (9.4%) remain at the bottom of the chart. Within the corresponding sample, Berlin is underweighted again (-5.6%). Despite the sample’s deviations, the null hypothesis is not rejected.

On a regional level, the regions around the cities of Dresden (Oberes Elbtal, 8.3%), Leipzig (Westsachsen, 8.1%) and Chemnitz (Chemnitz-Erzgebirge, 7.8%) attract the largest share of West German investments outside of Berlin (see table A6). In the sample, the regions of Westmecklenburg (+1.7%), Oderland/Spree (+2.4%), and Ostthüringen (+3.3%) are overrepresented at the expense of the regions of Berlin, Magdeburg (-2.0%), and

Südthüringen (-2.1%). Nevertheless, the null hypothesis of an identical distribution is not rejected.

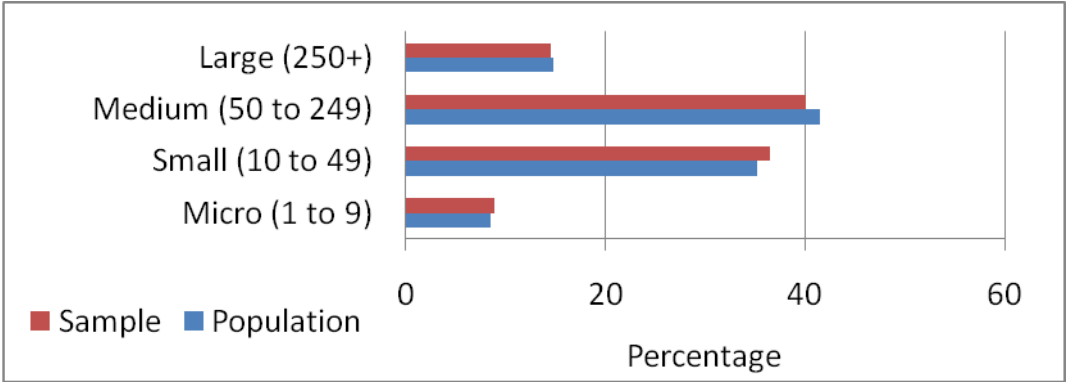
Graph 7: Regional distribution of West German multinational affiliates in East Germany



Source: IWH 2010

Among the East German affiliates of West German investors, more than 75% of the enterprises are classified as small or medium-sized (see table A11 and graph 8), while micro enterprises account for 8.9%. In the sample, micro enterprises are slightly overweight at the expense of medium-sized companies (+1.3% and -1.3%, respectively). Hence, the differences from the population are not sufficient to reject the assumption of an identical distribution.

Graph 8: Distribution of West German affiliates in East Germany sorted by employment size



Source: IWH 2010

Contrary to foreign affiliates, the majority of East German enterprises with a West German investor belong to the industrial production (52.3%). This distribution hardly changes in the sample. Hence, the null hypothesis cannot be rejected (see table A17). The same result is obtained, when the distributional identity is checked on the base of the 2-digit WZ 2003 Code.

More than half (58%) of West German subsidiaries in East Germany are completely owned by their investor (see table A23). Beyond that, 32.4% of West German investors hold a majority on their affiliate. As the sample’s distribution slightly differs from its population, the null hypothesis is not rejected.

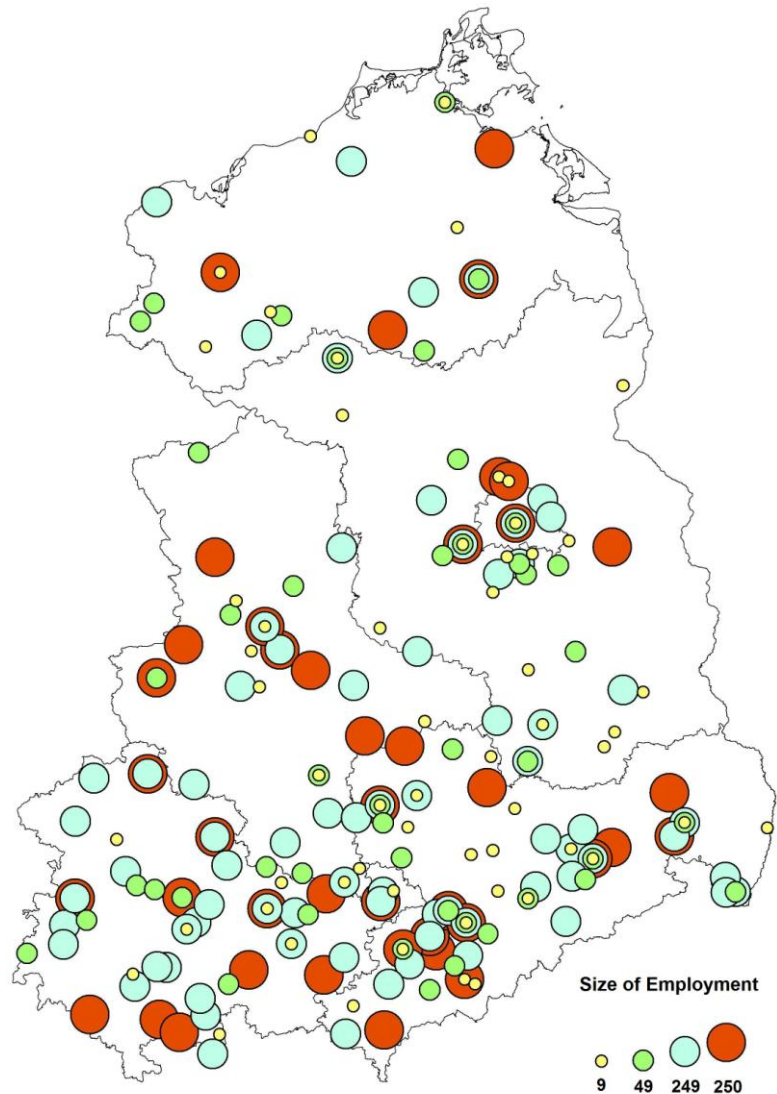
2. East German Enterprises investing abroad

In the following section, we will discuss the representativeness of East German enterprises holding foreign direct investments. Compared to the 2009 survey, the amount of East German firms investing abroad has increased from 316 to 531. Compared to the amount of 2,257 enterprises, which are (partly) owned by foreign investors, this figure indicates that only a small ratio of East German enterprises was already able to get globally integrated. This conclusion is supported by the circumstances that a significant part of these companies is located in Berlin (including former West Berlin) and/or is partly owned by a multinational investor. Hence, the share of originally East German enterprises investing abroad is even smaller.

Within the population of East German companies holding FDI, 45.8% of the enterprises are located in Berlin and were not necessarily exposed to the transition process (see table A7 and graph 9). Nearly two thirds of the remaining enterprises investing abroad can be found either in Saxony (20.7%) or in Thuringia (13.7%). In the sample, Berlin is strongly underrepresented (-18.1%). Thus, the null hypothesis of an identical distribution is rejected.

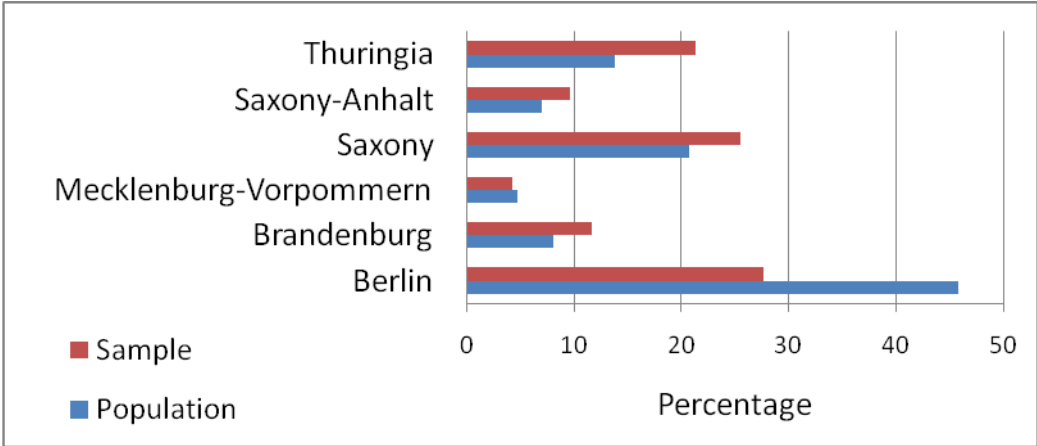
On the regional level (see table A8), the regions of the Ostthüringen (6.0%), Chemnitz/Erzgebirge (5.5%), and Westsachsen (5.3%) are the driving forces of the internationalization of the East German economy. These areas are followed by the regions of Oberes Elbtal/Osterzgebirge (5.1%), and Magdeburg (3.6%). The regional disparity is even more pronounced as among East German enterprises with a multinational investor. As the sample deviation is quite small, the assumption of an identical distribution cannot be rejected.

Graph 9: Regional distribution of East German enterprises investing abroad



Source: IWH 2010

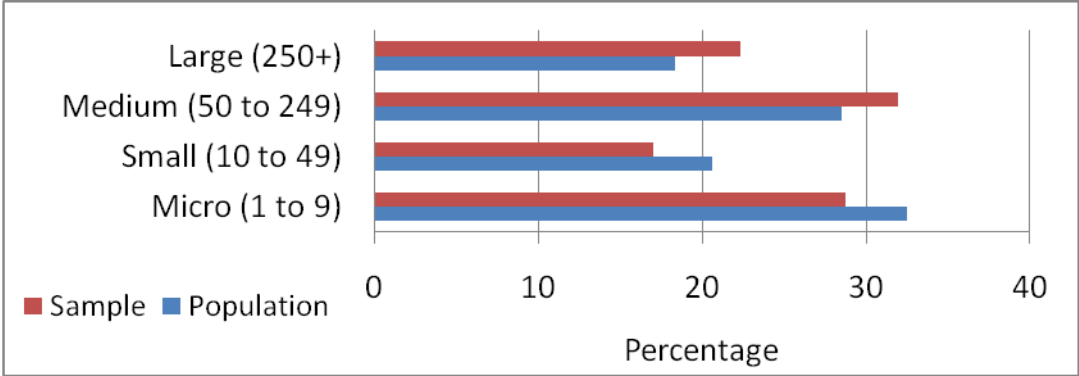
Graph 10: Regional distribution of East German enterprises investing abroad



Source: IWH 2010

In comparison to East German enterprises with a multinational investor, the companies investing abroad are larger (see table A12 and graph 11), since medium-sized and large companies combine a population share of 28.5% or 18.3%, respectively. This figure might indicate that larger companies are more likely to be successfully integrated into the global economy. In the corresponding sample, small and micro enterprises are underweighted (-3.6% and 3.8%, respectively) in favor of medium-sized companies (+3.4%) and large companies (+4%). These deviations are not distinct enough to reject the null hypothesis of an identical distribution.

Graph 11: Distribution of East German enterprises investing outside Germany sorted by employment size.



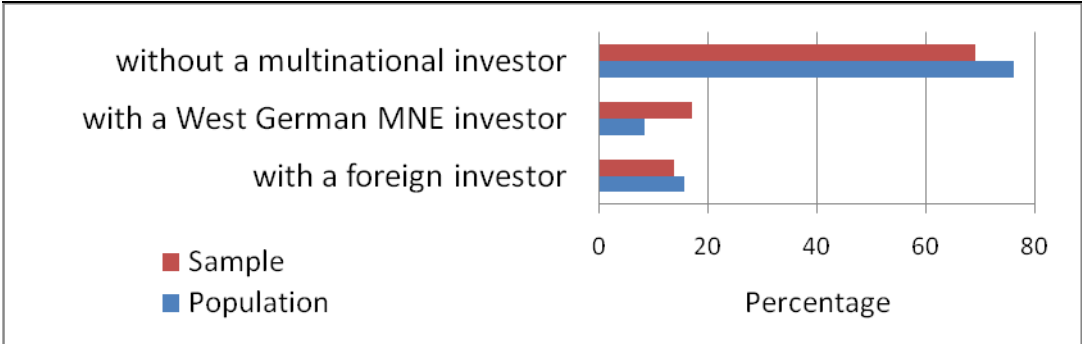
Source: IWH 2010

The majority (64.4%) of the East German enterprises investing abroad belongs to the service sector (see table A19). These figures might indicate East German service sector has achieved a higher degree of internationalization compared to the East German industrial sector. Despite an overrepresentation of the service sector (+3.6%), the null hypothesis of an identical distribution of the population cannot be rejected. Considering the sector distribution per 2-digit WZ 2003 Code, we obtain the result that the largest share of East German companies holding FDI belong to the sector of business service providers (code 74, 37.9%), and wholesales (code 51, 7.9%). Compared to the population, the wholesale sector is overweight (+5.0%) at the expense of the business service sector (-9.1%). Despite the distinct

sample deviations from the population, the assumption of an identical distribution cannot be rejected.

Nearly 58% of the East German companies holding FDI have the absolute control over at least one affiliate outside Germany (see table A24). Beyond that, an additional share of 29.7% of the East German enterprises with an investment abroad hold a majority control over one or more foreign affiliates. Compared to the population, East German enterprises, holding an absolute control outside Germany, are strongly underweight in the sample (-12.6%). Hence, due this deviation, the null hypothesis is rejected.

Graph 12: Distribution of East German enterprises holding FDI sorted by ownership structure



Source: IWH 2010

The analysis of the ownership structure of East German enterprises investing abroad shows that 76.1% of the enterprises are originally East German (see table A25 and graph 12), since 15.6% or 8.3% of these companies have either a foreign or a West German multinational investor, respectively. Due to distinct deviations from the population, the assumption of an identical distribution of the population and the corresponding sample is rejected.

Appendix

Table A1 Number of enterprises with a multinational investor per federal state

Enterprises per federal state	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Berlin	903	28,0	125	20,4	172	-7,7
Brandenburg	410	12,7	100	16,3	78	3,6
Mecklenburg-Vorpommern	242	7,5	47	7,7	46	0,1
Saxony	778	24,1	144	23,5	148	-0,7
Saxony-Anhalt	387	12,0	86	14,0	74	2,0
Thuringia	503	15,6	112	18,2	96	2,6
Total	3.223	100,0	614	100,0	614	0,0
Chi-Square-Test	23,903					
DF	5					
Asymptotic significance	0,0002					

Source: IWH FDI-micro-database 2010

Table A2 Number of enterprises with a multinational investor per region (ROR)

Enterprises per region (ROR)	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
ALTMARK	22	0,7	5	0,8	4	0,1
BERLIN	903	28,0	125	20,4	172	-7,7
CHEMNITZ-ERZGEBIRGE	167	5,2	33	5,4	32	0,2
DESSAU	70	2,2	16	2,6	13	0,4
HALLE/S.	128	4,0	28	4,6	24	0,6
HAVELLAND-FLÄMING	140	4,3	33	5,4	27	1,0
LAUSITZ-SPREEWALD	108	3,4	27	4,4	21	1,0
MAGDEBURG	167	5,2	37	6,0	32	0,8
MECKLENBURGISCHE SEENPLATTE	43	1,3	10	1,6	8	0,3
MITTELTHÜRINGEN	146	4,5	36	5,9	28	1,3
MITTLERES MECKLENBURG/ROSTOCK	81	2,5	11	1,8	15	-0,7
NORDTHÜRINGEN	55	1,7	16	2,6	10	0,9
OBERES ELBTAL/OSTERZGEBIRGE	236	7,3	36	5,9	45	-1,5
OBERLAUSITZ-NIEDERSCHLESIEEN	115	3,6	21	3,4	22	-0,1
ODERLAND-SPREE	69	2,1	17	2,8	13	0,6
OSTTHÜRINGEN	201	6,2	47	7,7	38	1,4
PRIGNITZ-OBERHAVEL	59	1,8	13	2,1	11	0,3
SÜDTHÜRINGEN	101	3,1	13	2,1	19	-1,0
SÜDWESTSACHSEN	78	2,4	18	2,9	15	0,5
UCKERMARK-BARNIM	34	1,1	10	1,6	6	0,6
VORPOMMERN	39	1,2	9	1,5	7	0,3
WESTMECKLENBURG	79	2,5	17	2,8	15	0,3
WESTSACHSEN	182	5,6	36	5,9	35	0,2
Total	3.223	100	614	100	614	0
Chi-Square-Test	35,919					
DF	22					
Asymptotich significance	0,0310					

Source: IWH FDI-micro-database 2010

Table A3 Number of enterprises with foreign investors per federal state

Enterprises per federal state	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Berlin	729	32,3	101	24,0	136	-8,3
Brandenburg	297	13,2	74	17,6	55	4,4
Mecklenburg-Vorpommern	151	6,7	29	6,9	28	0,2
Saxony	503	22,3	90	21,4	94	-0,9
Saxony-Anhalt	264	11,7	62	14,7	49	3,0
Thuringia	313	13,9	65	15,4	58	1,6
Total	2.257	100,0	421	100,0	421	0,0
Chi-Square-Test	19,478					
DF	5					
Asymptotic significance	0,0016					

Source: IWH FDI-micro-database 2010

Table A4 Number of enterprises with foreign investors per region (ROR)

Enterprises per (ROR) region	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
ALTMARK	15	0,7	1	0,2	3	-0,4
BERLIN	729	32,3	101	24,0	136	-8,3
CHEMNITZ-ERZGEBIRGE	92	4,1	16	3,8	17	-0,3
DESSAU	42	1,9	10	2,4	8	0,5
HALLE/S.	94	4,2	21	5,0	18	0,8
HAVELLAND-FLÄMING	95	4,2	24	5,7	18	1,5
LAUSITZ-SPREEWALD	85	3,8	23	5,5	16	1,7
MAGDEBURG	113	5,0	30	7,1	21	2,1
MECKLENBURGISCHE SEENPLATTE	24	1,1	8	1,9	4	0,8
MITTELTHÜRINGEN	93	4,1	22	5,2	17	1,1
MITTLERES MECKLENBURG/ROSTOCK	49	2,2	5	1,2	9	-1,0
NORDTHÜRINGEN	36	1,6	9	2,1	7	0,5
OBERES ELBTAL/OSTERZGEBIRGE	156	6,9	23	5,5	29	-1,4
OBERLAUSITZ-NIEDERSCHLESIEIEN	85	3,8	17	4,0	16	0,3
ODERLAND-SPREE	47	2,1	8	1,9	9	-0,2
OSTTHÜRINGEN	123	5,4	25	5,9	23	0,5
PRIGNITZ-OBERHAVEL	48	2,1	10	2,4	9	0,2
SÜDTHÜRINGEN	61	2,7	9	2,1	11	-0,6
SÜDWESTSACHSEN	47	2,1	10	2,4	9	0,3
UCKERMARK-BARNIM	22	1,0	9	2,1	4	1,2
VORPOMMERN	28	1,2	8	1,9	5	0,7
WESTMECKLENBURG	50	2,2	8	1,9	9	-0,3
WESTSACHSEN	123	5,4	24	5,7	23	0,3
Total	2.257	100	421	100	421	0
Chi-Square-Test	37,373					
DF	22					
Asymptotich significance	0,0215					

Source: IWH FDI-micro-database 2010

Table A5 Number of enterprises with a Western German investor per federal state

Enterprises per federal state	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Berlin	174	18,0	24	12,4	35	-5,6
Brandenburg	113	11,7	26	13,5	23	1,8
Mecklenburg-Vorpommern	91	9,4	18	9,3	18	-0,1
Saxony	275	28,5	54	28,0	55	-0,5
Saxony-Anhalt	123	12,7	24	12,4	25	-0,3
Thuringia	190	19,7	47	24,4	38	4,7
Total	966	100,0	193	100,0	193	0,0
Chi-Square-Test	6,036					
DF	5					
Asymptotic significance	0,3027					

Source: IWH FDI-micro-database 2010

Table A6 Number of enterprises with a West German investor per region (ROR)

Enterprises per region (ROR)	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
ALTMARK	7	0,7	4	2,1	1	1,3
BERLIN	174	18,0	24	12,4	35	-5,6
CHEMNITZ-ERZGEBIRGE	75	7,8	17	8,8	15	1,0
DESSAU	28	2,9	6	3,1	6	0,2
HALLE/S.	34	3,5	7	3,6	7	0,1
HAVELLAND-FLÄMING	45	4,7	9	4,7	9	0,0
LAUSITZ-SPREEWALD	23	2,4	4	2,1	5	-0,3
MAGDEBURG	54	5,6	7	3,6	11	-2,0
MECKLENBURGISCHE SEENPLATTE	19	2,0	2	1,0	4	-0,9
MITTELTHÜRINGEN	53	5,5	14	7,3	11	1,8
MITTLERES MECKLENBURG/ROSTOCK	32	3,3	6	3,1	6	-0,2
NORDTHÜRINGEN	19	2,0	7	3,6	4	1,7
OBERES ELBTAL/OSTERZGEBIRGE	80	8,3	13	6,7	16	-1,5
OBERLAUSITZ-NIEDERSCHLESIEN	30	3,1	4	2,1	6	-1,0
ODERLAND-SPREE	22	2,3	9	4,7	4	2,4
OSTTHÜRINGEN	78	8,1	22	11,4	16	3,3
PRIGNITZ-OBERHAVEL	11	1,1	3	1,6	2	0,4
SÜDTHÜRINGEN	40	4,1	4	2,1	8	-2,1
SÜDWESTSACHSEN	31	3,2	8	4,1	6	0,9
UCKERMARK-BARNIM	12	1,2	1	0,5	2	-0,7
VORPOMMERN	11	1,1	1	0,5	2	-0,6
WESTMECKLENBURG	29	3,0	9	4,7	6	1,7
WESTSACHSEN	59	6,1	12	6,2	12	0,1
Total	966	100	193	100	193	0
Chi-Square-Test	29,307					
DF	22					
Asymptotich significance	0,1363					

Source: IWH FDI-micro-database 2010

Table A7 Number of East German enterprises investing abroad per federal state

Enterprises per federal state	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Berlin	243	45,8	26	27,7	43	-18,1
Brandenburg	43	8,1	11	11,7	8	3,6
Mecklenburg-Vorpommern	25	4,7	4	4,3	4	-0,5
Saxony	110	20,7	24	25,5	19	4,8
Saxony-Anhalt	37	7,0	9	9,6	7	2,6
Thuringia	73	13,7	20	21,3	13	7,5
Total	531	100,0	94	100,0	94	0,0
Chi-Square-Test	14,125					
DF	5					
Asymptotic significance	0,0148					

Source: IWH FDI-micro-database 2010

Table A8 Number of East German enterprises investing abroad per region (ROR)

Enterprises per (ROR) region	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
ALTMARK	1	0,2		0,0	0	-0,2
BERLIN	243	45,8	26	27,7	43	-18,1
CHEMNITZ-ERZGEBIRGE	29	5,5	7	7,4	5	2,0
DESSAU	4	0,8	1	1,1	1	0,3
HALLE/S.	13	2,4	3	3,2	2	0,7
HAVELLAND-FLÄMING	16	3,0	1	1,1	3	-1,9
LAUSITZ-SPREEWALD	13	2,4	3	3,2	2	0,7
MAGDEBURG	19	3,6	5	5,3	3	1,7
MECKLENBURGISCHE SEENPLATTE	7	1,3	1	1,1	1	-0,3
MITTELTHÜRINGEN	16	3,0	4	4,3	3	1,2
MITTLERES MECKLENBURG/ROSTOCK	4	0,8	1	1,1	1	0,3
NORDTHÜRINGEN	7	1,3	4	4,3	1	2,9
OBERES ELBTAL/OSTERZGEBIRGE	27	5,1	4	4,3	5	-0,8
OBERLAUSITZ-NIEDERSCHLESIEN	14	2,6	4	4,3	2	1,6
ODERLAND-SPREE	3	0,6	1	1,1	1	0,5
OSTTHÜRINGEN	32	6,0	9	9,6	6	3,5
PRIGNITZ-OBERHADEL	9	1,7	5	5,3	2	3,6
SÜDTHÜRINGEN	18	3,4	3	3,2	3	-0,2
SÜDWESTSACHSEN	12	2,3	4	4,3	2	2,0
UCKERMARK-BARNIM	2	0,4	1	1,1	0	0,7
VORPOMMERN	4	0,8	1	1,1	1	0,3
WESTMECKLENBURG	10	1,9	1	1,1	2	-0,8
WESTSACHSEN	28	5,3	5	5,3	5	0,0
Total	531	100	94	100	94	0
Chi-Square-Test	30,938					
DF	22					
Asymptotich significance	0,0974					

Source: IWH FDI-micro-database 2010

Table A9: Number of East German enterprises with a multination investor per employment size

Enterprises per employment size	Population		Sample		Expected Sample Value	Deviation in %
	Frequency	%	Frequency	%		
Micro (1 to 9)	606	18,9	125	20,5	116	1,5
Small (10 to 49)	1.218	38,0	229	37,5	232	-0,5
Medium (50 to 249)	1.048	32,7	200	32,7	200	0,0
Large (250+)	332	10,4	57	9,3	63	-1,0
Total	3.204	100	611	100	611	
Chi-Square-Test	1,45					
DF	3					
Asymptotic significance	0,6948					

Source: IWH FDI-micro-database 2010

Table A10: Number of East German enterprises with a foreign investor per employment size

Enterprises per employment size	Population		Sample		Expected Sample Value	Deviation in %
	Frequency	%	Frequency	%		
Micro (1 to 9)	524	23,3	108	25,8	98	2,4
Small (10 to 49)	881	39,2	159	37,9	164	-1,3
Medium (50 to 249)	651	29,0	123	29,4	121	0,4
Large (250+)	190	8,5	29	6,9	35	-1,5
Total	2.246	100	419	100	419	
Chi-Square-Test	2,44					
DF	3					
Asymptotic significance	0,4862					

Source: IWH FDI-micro-database 2010

Table A11: Number of East German enterprises with a West German investor per employment size

Enterprises per employment size	Population		Sample		Expected Sample Value	Deviation in %
	Frequency	%	Frequency	%		
Micro (1 to 9)	82	8,6	17	8,9	16	0,3
Small (10 to 49)	337	35,2	70	36,5	68	1,3
Medium (50 to 249)	397	41,4	77	40,1	80	-1,3
Large (250+)	142	14,8	28	14,6	28	-0,2
Total	958	100	192	100	192	
Chi-Square-Test	0,20					
DF	3					
Asymptotic significance	0,9777					

Source: IWH FDI-micro-database 2010

Table A12: Number of East German enterprises investing abroad per employment size

Enterprises per employment size	Population		Sample		Expected Sample Value	Deviation in %
	Frequency	%	Frequency	%		
Micro (1 to 9)	172	32,5	27	28,7	31	-3,8
Small (10 to 49)	109	20,6	16	17,0	19	-3,6
Medium (50 to 249)	151	28,5	30	31,9	27	3,4
Large (250+)	97	18,3	21	22,3	17	4,0
Total	529	100	94	100	94	
Chi-Square-Test	2,20					
DF	3					
Asymptotic significance	0,5325					

Source: IWH FDI-micro-database 2010

Table A13 Number of enterprises with a multinational investor per branch

Enterprises per branch	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Industry	1.438	44,6	290	47,2	274	2,6
Service	1.785	55,4	324	52,8	340	-2,6
Total	3.223	100	614	100	614	
Chi-Square-Test	1,698					
DF	1					
Asymptotic significance	0,1925					

Source: IWH FDI-micro-database 2010

Table A14 Number of enterprises with a multinational investor per sector (WZ 2003)

Enterprises per sector (WZ 2003)	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
10	3	0,09	1	0,16	1	0,1
11	0	0,00	0	0,00	0	0,0
13	1	0,03	0	0,00	0	-0,0
14	31	0,96	8	1,30	6	0,3
15	87	2,70	10	1,63	17	-1,1
16	1	0,03	0	0,00	0	-0,0
17	31	0,96	8	1,30	6	0,3
18	6	0,19	1	0,16	1	-0,0
19	3	0,09	1	0,16	1	0,1
20	34	1,05	9	1,47	6	0,4
21	43	1,33	8	1,30	8	-0,0
22	54	1,68	6	0,98	10	-0,7
23	4	0,12	0	0,00	1	-0,1
24	111	3,44	17	2,77	21	-0,7
25	92	2,85	19	3,09	18	0,2
26	93	2,89	20	3,26	18	0,4
27	51	1,58	15	2,44	10	0,9
28	197	6,11	36	5,86	38	-0,2
29	191	5,93	40	6,51	36	0,6
30	10	0,31	2	0,33	2	0,0
31	70	2,17	14	2,28	13	0,1
32	78	2,42	19	3,09	15	0,7
33	104	3,23	28	4,56	20	1,3
34	52	1,61	9	1,47	10	-0,1
35	24	0,74	3	0,49	5	-0,3
36	35	1,09	8	1,30	7	0,2
37	32	0,99	8	1,30	6	0,3
40	89	2,76	20	3,26	17	0,5
41	7	0,22	2	0,33	1	0,1
51	410	12,72	77	12,54	78	-0,2
60	56	1,74	9	1,47	11	-0,3
61	5	0,16	0	0,00	1	-0,2
62	6	0,19	2	0,33	1	0,1
63	112	3,48	22	3,58	21	0,1
64	14	0,43	0	0,00	3	-0,4
65	12	0,37	3	0,49	2	0,1
66	5	0,16	0	0,00	1	-0,2
67	19	0,59	1	0,16	4	-0,4
72	158	4,90	27	4,40	30	-0,5
73	96	2,98	25	4,07	18	1,1
74	608	18,86	107	17,43	116	-1,4
90	37	1,15	8	1,30	7	0,2
92	49	1,52	5	0,81	9	-0,7
93	102	3,16	16	2,61	19	-0,6
Total	3.223	100	614	100	614	0
Chi-Square-Test	33,969					
DF	42					
Asymptotic significance	0,8066					

Source: IWH FDI-micro-database 2010

Table A15 Number of enterprises with a foreign investor per branch

Enterprises per branch	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Industry	933	41,3	188	44,7	174	3,3
Service	1.324	58,7	233	55,3	247	-3,3
Total	2.257	100	421	100	421	
Chi-Square-Test	1,911					
DF	1					
Asymptotic significance	0,1669					

Source: IWH FDI-micro-database 2010

Table A16 Number of enterprises with a foreign investor per sector (WZ 2003)

Enterprises per sector (WZ 2003)	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
10	2	0,09	1	0,24	0	0,1
11		0,00		0,00	0	0,0
13		0,00		0,00	0	0,0
14	18	0,80	5	1,19	3	0,4
15	60	2,66	7	1,66	11	-1,0
16		0,00		0,00	0	0,0
17	23	1,02	6	1,43	4	0,4
18	4	0,18		0,00	1	-0,2
19	2	0,09		0,00	0	-0,1
20	29	1,28	7	1,66	5	0,4
21	31	1,37	7	1,66	6	0,3
22	39	1,73	3	0,71	7	-1,0
23	3	0,13		0,00	1	-0,1
24	81	3,59	16	3,80	15	0,2
25	59	2,61	13	3,09	11	0,5
26	53	2,35	9	2,14	10	-0,2
27	35	1,55	10	2,38	7	0,8
28	134	5,94	23	5,46	25	-0,5
29	116	5,14	24	5,70	22	0,6
30	8	0,35	2	0,48	1	0,1
31	38	1,68	8	1,90	7	0,2
32	48	2,13	8	1,90	9	-0,2
33	69	3,06	19	4,51	13	1,5
34	18	0,80	6	1,43	3	0,6
35	16	0,71	3	0,71	3	0,0
36	25	1,11	4	0,95	5	-0,2
37	22	0,97	7	1,66	4	0,7
40	44	1,95	12	2,85	8	0,9
41	6	0,27	1	0,24	1	-0,0
51	305	13,51	58	13,78	57	0,3
60	44	1,95	8	1,90	8	-0,0
61	4	0,18		0,00	1	-0,2
62	4	0,18	2	0,48	1	0,3
63	85	3,77	16	3,80	16	0,0
64	9	0,40		0,00	2	-0,4
65	5	0,22	1	0,24	1	0,0
66	1	0,04		0,00	0	-0,0
67	12	0,53	1	0,24	2	-0,3
72	116	5,14	16	3,80	22	-1,3
73	67	2,97	19	4,51	12	1,5
74	485	21,49	81	19,24	90	-2,2
90	23	1,02	5	1,19	4	0,2
92	32	1,42	3	0,71	6	-0,7
93	82	3,63	10	2,38	15	-1,3
Total	2.257	100	421	100	421	0
Chi-Square-Test	35,781					
DF	40					
Asymptotic significance	0,6606					

Source: IWH FDI-micro-database 2010

Table A17 Number of enterprises with a West German investor per branch

Enterprises per branch	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Industry	505	52,3	102	52,8	101	0,6
Service	461	47,7	91	47,2	92	-0,6
Total	966	100	193	100	193	
Chi-Square-Test	0,025					
DF	1					
Asymptotic significance	0,8735					

Source: IWH FDI-micro-database 2010

Table A18 Number of enterprises with a West German investor per sector (WZ 2003)

Enterprises per sector (WZ 2003)	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
10	1	0,10		0,00	0	-0,1
11		0,00		0,00	0	0,0
13	1	0,10		0,00	0	-0,1
14	13	1,35	3	1,55	3	0,2
15	27	2,80	3	1,55	5	-1,2
16	1	0,10		0,00	0	-0,1
17	8	0,83	2	1,04	2	0,2
18	2	0,21	1	0,52	0	0,3
19	1	0,10	1	0,52	0	0,4
20	5	0,52	2	1,04	1	0,5
21	12	1,24	1	0,52	2	-0,7
22	15	1,55	3	1,55	3	0,0
23	1	0,10		0,00	0	-0,1
24	30	3,11	1	0,52	6	-2,6
25	33	3,42	6	3,11	7	-0,3
26	40	4,14	11	5,70	8	1,6
27	16	1,66	5	2,59	3	0,9
28	63	6,52	13	6,74	13	0,2
29	75	7,76	16	8,29	15	0,5
30	2	0,21		0,00	0	-0,2
31	32	3,31	6	3,11	6	-0,2
32	30	3,11	11	5,70	6	2,6
33	35	3,62	9	4,66	7	1,0
34	34	3,52	3	1,55	7	-2,0
35	8	0,83		0,00	2	-0,8
36	10	1,04	4	2,07	2	1,0
37	10	1,04	1	0,52	2	-0,5
40	45	4,66	8	4,15	9	-0,5
41	1	0,10	1	0,52	0	0,4
51	105	10,87	19	9,84	21	-1,0
60	12	1,24	1	0,52	2	-0,7
61	1	0,10		0,00	0	-0,1
62	2	0,21		0,00	0	-0,2
63	27	2,80	6	3,11	5	0,3
64	5	0,52		0,00	1	-0,5
65	7	0,72	2	1,04	1	0,3
66	4	0,41		0,00	1	-0,4
67	7	0,72		0,00	1	-0,7
72	42	4,35	11	5,70	8	1,4
73	29	3,00	6	3,11	6	0,1
74	123	12,73	26	13,47	25	0,7
90	14	1,45	3	1,55	3	0,1
92	17	1,76	2	1,04	3	-0,7
93	20	2,07	6	3,11	4	1,0
Total	966	100	193	100	193	0
Chi-Square-Test	36,732					
DF	42					
Asymptotic significance	0,7010					

Source: IWH FDI-micro-database 2010

Table A19 Number of East German enterprises investing abroad per branch

Enterprises per branch	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Industry	189	35,6	37	39,4	33	3,8
Service	342	64,4	57	60,6	61	-3,8
Total	531	100	94	100	94	
Chi-Square-Test	0,582					
DF	1					
Asymptotic significance	0,4454					

Source: IWH FDI-micro-database 2010

Table A20 Number of East German enterprises investing abroad per sector (WZ 2003)

Enterprises per sector (WZ 2003)	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
10		0,00		0,00	0	0,0
11	1	0,19		0,00	0	-0,2
13		0,00		0,00	0	0,0
14	1	0,19		0,00	0	-0,2
15	9	1,69	2	2,13	2	0,4
16		0,00		0,00	0	0,0
17	5	0,94	2	2,13	1	1,2
18	2	0,38		0,00	0	-0,4
19		0,00		0,00	0	0,0
20	5	0,94	1	1,06	1	0,1
21	3	0,56		0,00	1	-0,6
22	18	3,39	1	1,06	3	-2,3
23	1	0,19		0,00	0	-0,2
24	16	3,01	4	4,26	3	1,2
25	12	2,26	3	3,19	2	0,9
26	6	1,13	3	3,19	1	2,1
27	4	0,75	2	2,13	1	1,4
28	15	2,82	3	3,19	3	0,4
29	25	4,71	3	3,19	4	-1,5
30	1	0,19		0,00	0	-0,2
31	14	2,64	2	2,13	2	-0,5
32	18	3,39	3	3,19	3	-0,2
33	20	3,77	7	7,45	4	3,7
34	4	0,75	1	1,06	1	0,3
35	2	0,38		0,00	0	-0,4
36	5	0,94		0,00	1	-0,9
37	2	0,38		0,00	0	-0,4
40	7	1,32	3	3,19	1	1,9
41		0,00		0,00	0	0,0
51	41	7,72	12	12,77	7	5,0
60	2	0,38		0,00	0	-0,4
61	3	0,56	1	1,06	1	0,5
62	1	0,19		0,00	0	-0,2
63	12	2,26	1	1,06	2	-1,2
64	2	0,38	1	1,06	0	0,7
65	5	0,94	1	1,06	1	0,1
66		0,00		0,00	0	0,0
67	4	0,75		0,00	1	-0,8
72	24	4,52	4	4,26	4	-0,3
73	17	3,20	3	3,19	3	-0,0
74	201	37,85	27	28,72	36	-9,1
90	4	0,75	1	1,06	1	0,3
92	4	0,75		0,00	1	-0,8
93	15	2,82	3	3,19	3	0,4
Total	531	100	94	100	94	0
Chi-Square-Test	29,052					
DF	37					
Asymptotic significance	0,8214					

Source: IWH FDI-micro-database 2010

Table A21 Number of enterprises with a multinational investor per ownership structure

Enterprises per ownership structure	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Minority Control (< 50%)	330	10,3	79	12,9	63	2,6
Majority Control (50-99.99%)	971	30,2	190	31,0	185	0,8
Full Control (100%)	1.918	59,6	344	56,1	365	-3,5
Total	3.219	100,0	613	100,0	613	
Chi-Square-Test	5,531					
DF	2					
Asymptotic significance	0,0630					

Source: IWH FDI-micro-database 2010

Table A22 Number of enterprises with a foreign investor per ownership structure

Enterprises per ownership structure	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Minority Control (< 50%)	238	10,5	53	12,6	44	2,0
Majority Control (50-99.99%)	659	29,2	132	31,4	123	2,2
Full Control (100%)	1.360	60,3	236	56,1	254	-4,2
Total	2.257	100,0	421	100,0	421	
Chi-Square-Test	3,571					
DF	2					
Asymptotic significance	0,1677					

Source: IWH FDI-micro-database 2010

Table A23 Number of enterprises with a West German investor per ownership structure

Enterprises per ownership structure	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Minority Control (< 50%)	92	9,6	26	13,5	18	4,0
Majority Control (50-99.99%)	312	32,4	58	30,2	62	-2,2
Full Control (100%)	558	58,0	108	56,3	111	-1,8
Total	962	100,0	192	100,0	192	
Chi-Square-Test	3,572					
DF	2					
Asymptotic significance	0,1676					

Source: IWH FDI-micro-database 2010

Table A24 Number of East German enterprises investing abroad per ownership structure

Enterprises per ownership structure	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
Minority Control (< 50%)	66	12,8	19	20,4	12	7,6
Majority Control (50-99.99%)	153	29,7	32	34,4	28	4,8
Full Control (100%)	297	57,6	42	45,2	54	-12,4
Total	516	100,0	93	100,0	93	
Chi-Square-Test	7,436					
DF	2					
Asymptotic significance	0,0243					

Source: IWH FDI-micro-database 2010

Table A25 Number of East German enterprises investing abroad per ownership structure

Enterprises per ownership structure	Population		Sample		Expected Sample	Deviation in %
	Frequency	%	Frequency	%		
with a foreign investor	83	15,6	13	13,8	15	-1,8
with a West German MNE investor	44	8,3	16	17,0	8	8,7
without a multinational investor	404	76,1	65	69,1	72	-6,9
Total	531	100,0	94	100,0	94	
Chi-Square-Test	9,445					
DF	2					
Asymptotic significance	0,0089					

Source: IWH FDI-micro-database 2010