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Initial Regional Conditions and Entrepreneurship

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Abstract

This paper analyzes the role of initial conditions for the level of entrepreneurial activity across regions of a post-socialist economy. Thereby, the regional factors that are typically found to affect start-up activity in established market economies are investigated. It is found that the initial industry structure and population density are most important. Entrepreneurial culture is only partially important for general start-up activity, whereas the initial stock of knowledge has no effect on start-up activity. The implications of this paper are that regions with distinct initial conditions have higher start-up rates although the level of start-up activity was equal to "zero" at the beginning and that these conditions are a source of persistence in start-up rates.

Keywords: Structural Change; Transition Economics; New business formation

JEL-Classifications: P25; O18; L26; R11

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1 Introduction

This paper focuses on regional determinants of entrepreneurship. It basically asks the question which effect different regional characteristics have on new business formation rates in an economy where the level of start-up activity is more or less “zero” across regions since entrepreneurship is restricted, but immediately allowed by a mainly exogenous shock to unfold.

Such an exercise can be carried out by examining an economy that has experienced a heavy shock to its economic development, such as a transition from a socialist to a market economy. A snapshot of the socialist economy on the eve of its transition toward a market economy reflects its initial conditions, just before the unleashing of market forces. The introduction of the new economic system led to an emergence of new businesses which was mainly prohibited before (Smallbone & Welter, 2001). East Germany: the former German Democratic Republic (GDR) especially applies for this empirical exercise. There, the transition was a sudden shock, mainly induced exogenously. In a nutshell, the formerly socialist East Germany, where entrepreneurial activities were nearly absent, reunified with West Germany, an established market economy. The former East Germany adopted the market system immediately (Hall & Ludwig, 1995). The reunification implied a massive structural change of the East German economy, accompanied by the privatisation of state-owned firms (a “top-down transition”) and - what is most important in the context of this paper - by new business formation (a “bottom-up transition”; see Brezinski & Fritsch, 1995, for details).

So far, the regional dimension of new business formation, in the context of transition, has been explored only to a limited degree. However, after the transition, regional differences in regard to entrepreneurial activities promptly occurred (see, e.g., Welter, 2007). So, an analysis of regional factors that explain the rise of entrepreneurship are of interest in addition to the proposed the idea in regard to the role of initial regional condtions.

Drawing from unique data about the industrial composition of East German regions on the eve of the country’s transition toward a market economy, we find that initial regional conditions explain many differences of regional start-up rates in the aftermath of transition.

The paper proceeds as follows. First, the general framework and regional implications are presented (chapter 2). Second, the data, measurements, and methods are introduced (chapter 3). Third, the results are presented and discussed (Chapter 4). The final section concludes the paper (Chapter 5).

2 Framework

The regional component and persistency of start-up activity

Entrepreneurship in general is widely acknowledged as a crucial force of regional economic development (see, e.g., Carre et al., 2002; Acs & Armington, 2004; Audretsch & Keilbach, 2004). Its general effects include securing efficiency and stimulating productivity by contesting established market positions, accelerating structural change through "creative destruction," amplifying innovation, and increasing variety (see Fritsch, 2008, for an overview).

Regional factors were often found to have an effect on the spawning of entrepreneurship in established market economies. These factors comprise information and knowledge spillovers as well as the growth of the regional knowledge base, an entrepreneurial climate, agglomeration benefits and industry structure (see e.g. Parker, 2009; Stam, 2009 for an overview of regional conditions and entrepreneurship). A common empirical finding in investigations for established market economies is the persistence of start-up rates across regions (see e.g. Fritsch & Mueller, 2007; Andersson & Koster, 2010). Andersson & Koster (2010) describe a conceptual model where slowly changing features of the regional milieu explain regional start-up activities. Since the characteristics of the milieu are changing slowly so does the start-up activity, but current start-up activity is also a response to previous start-up activity via localised externalities and the emergence of an entrepreneurial climate through the availability of role models. This model plausibly explains the empirically found persistence of start-up rates in established market economies, but is not applicable in the transition context of socialist countries as is suggested by the principal role of entrepreneurship in socialism and thereafter.

Entrepreneurship was generally viewed as an anachronistic, bourgeois element (Thomas, 1996). In many parts of economic life,

entrepreneurship was prohibited. Over time, the self-employment rates in formerly communist East European countries decreased tremendously, and they were particularly low in the late 1980s (Acs & Audretsch, 1993).

The main political task in transition countries was to create new employment opportunities by stimulating new business formation (Kornai, 1992; Acs & Audretsch, 1993). Entrepreneurship was seen as an engine for economic growth because one of the crucial features of the Eastern European transition (in 1989/90) was a vast structural change that implied large net employment changes (Boeri & Terrell, 2002). Entrepreneurs were of crucial importance for the transition's favourable course since they followed new paths in conducting business (McMillan & Woodruff, 2002). Indeed, the positive net employment growth as well as job creation rates in transition economies was driven by new business formation (see Haltiwanger et al., 2003, for an overview).

During the process of the catch-up existed pronounced regional differences in regard to entrepreneurship across regions within transition economies (see e.g. Barjak, 2001; Berkowitz & DeJong, 2005; Welter, 2007). The regional spread is of interest, because at the eve of transition towards a market economy, the level of start-up activity was more or less "zero" in every region. This suggests that regional factors have also an effect on the spawning of entrepreneurship in transition economies, like they have in established market economies. Putting this suggestion further one may argue that regions within socialist planned economies composed of distinct structural characteristics would have a higher level of entrepreneurial activities in case this economic activity would have been allowed and indeed had when the entrepreneurial "horse race" was started. If this is reasonable, the level of start-up activity in the years following transition should be affected by these initial structural conditions of regions and the changing features of the regional milieu. Initial regional conditions are the structural make-up of regions just before transition.

The response mechanism of starting firms as described by Andersson & Koster (2010) can hardly be explained by previous start-up activities and persistency of start-up rates as means of the availability of entrepreneurial

role models and climate in the transition context since start-up activity was nearly absent in communism. This does not mean that there have been no regional differences in regard to entrepreneurial climate in transition economies. Regions inherited an entrepreneurial heritage (climate) at the same time that survived communism and which has to do with the role entrepreneurs played in the economic history of the region especially in pre-socialist times (Wyrwich, 2010) and maybe more in general because regions are marked by differences in regard to their historic socio-economic heritage (see e.g. Gorzelak, 1996). Persistency of start-up activity in the transition context would then mean that regions with high start-up rates in pre-socialist times and/ or regions with a high “entrepreneurial residual”, reflected by the regional differences of the few self-employed that remained in socialism, continue to have higher start-up rates after the demise of socialism.

However, in an analysis of the regional component of explaining start-up activity one has to keep in mind that regions did not have the same economic meaning in socialist societies, because nearly every economic activity was centrally planned and the units of production were decoupled from regions at the same time (Stark & Grabher, 1997). In the course of transition economic activities were freed up, but the socialist legacy could not be removed over night.

The question is: which initial regional conditions are the most promising in explaining regional differences of start-up activity? The factors that are investigated in more detail here are urbanization, industry structure, knowledge and entrepreneurial culture. All of these variables were empirically tested across established market economies and found to affect the level of start-up activity to some degree (see e.g. Stam, 2009). However, the initial configuration of these factors in transition economies may indicate a different relationship to start-up activity than in established market economies. It is argued in the following that there are departures from the general theoretical reasoning why the factors have an effect on start-up activity, which have to do with the socialist legacy. The role of entrepreneurship, transition and the region is discussed thereafter in more detail with a special reference to East Germany, the former GDR.

The economic transition of East Germany and Entrepreneurship

East Germany, the former German Democratic Republic (GDR), reunified with the Federal Republic of Germany (FRG) in 1990. This process was mainly an exogenously driven shock. The whole institutional framework of the FRG was transferred to the new eastern part of the country in a very short amount of time as GDR immediately adopted a market economy (Hall & Ludwig, 1995).

The transition's exogenous character and deepness can be exemplified by the competition shock. In essence, due to the pursued autarky and misallocations inherent in a CPE, the manufacturing sector of the GDR was marked by comparatively low productivity levels and by technological backwardness and had a hard stand in competing with West German firms that entered the East German market (see Brezinski & Fritsch, 1995, for a detailed discussion). From 1989 to 1992 GDP declined by roughly 30%, value added in industry by more than 60% and employment by 35%. Thus *"…it is difficult to find a more dramatic episode of economic dislocation in peacetime during twentieth century*" (Burda & Hunt, 2001). Over time East Germany did not become a blue print of West Germany. Rather both parts of the country were marked by distinct regional growth regimes over the first decade after reunification (Fritsch, 2004). Thus, the eastern part of the country was still marked by transition.

Since reunification start-up activity was very high, especially in the 1990s (see e.g. Lehmann, 1994; Brixy, 1999; Fritsch, 2004). In contrast, In the GDR existed only 184,500 (approximately 1.8% of the workforce), which were mainly working in the manufacturing trade sector, but whose businesses were heavily regulated (Pickel, 1992). Around the year 2000 most of employment in East Germany was concentrated in newly founded firms (see e.g. Bellmann et al., 2003; Fritsch, 2004). However, there have been also pronounced regional differences in regard to start-up activity and self-employment rates (see e.g. Kawka, 2007; Welter, 2007; Schindele, 2010). These patterns reflect the crucial role of entrepreneurship in the transition context and the existence of a regional dimension of start-up activity.

Regional determinants of entrepreneurship in the transition context

Regional characteristics have been affected by the 40 years of socialism and may have different effects on start-up activity in East Germany as well as in transition economies in general compared to established market economies. Urbanization is a case in point. The socialist city underwent deep structural change (Andrusz et al., 1996). Tremendous suburbanization and relocation processes took place. This is also true for the former GDR (see e.g. Berentsen, 1992; Häussermann, 1996). Urbanisation and localisation externalities were not unfolded in the GDR and may have needed a longer time to be utilized (e.g., time for investing in infrastructure). Therefore, the effect of agglomeration on start-up activity may be different in transition economies. Therefore, it is unclear whether the dominance of density (Schroeter, 2009) can be found in the transition context.

The initial knowledge stock may have a peculiar effect on start-up activity in the transition context. Knowledge in transition had a limited relevance in general, because the socialist countries followed distinct technological paths (Radosevic, 1999). This hold also in the case of the former GDR (Bentley, 1992; Stokes, 2000) and knowledge needed to be adjusted in the aftermath of the transition (De Rudder, 2009). However, the effect of the initial knowledge stock on start-up activity is unclear. Engineers have been very active in starting firms in the 1990s (Koch & Thomas, 1997), but especially young and highly qualified people also left the region (Hunt, 2006), which may imply that the initial distribution of knowledge is vanished after transition and therefore also vanishes the effect of the initial stock of knowledge on entrepreneurship. Moreover, the high amount of start-up activity related to the backlog demand after transition, may offset the positive effect of knowledge.

Industry structure often dominates in analyses of regional factors (Foutopoulos & Spence, 2001). Emphasis is given here not on the entry conditions of industries (Geroski, 1995), but rather on the chances of certain industries to adapt and survive transition. In the case of the GDR, some industries were marked by especially low productivity and outmoded and especially environmentally harmful production techniques. These

unfavourable industries mainly comprised the large-scale industries chemical, energy (mining), and metallurgy sectors (see Rudolph, 1990; van Ark, 1995; Stokes, 1995). Moreover, such industries were heavily expanded during GDR times, according to socialist planning principles and production methods (Scherf & Scholz, 1984). These industries were not equally distributed over space. Rather some regions were characterized by mono-industrial structures. Some areas contained only one single industry or even just one major plant that was belonging to one of the large-scale sectors. Thus, the sector composition of regions was the starting point of previous studies on the ability of former GDR regions to adapt (Rudolph, 1990; Budde et al., 1991).

There are two different channels how these unfavourable industry structure may affect the adaptation of regions. First, GDR incumbents are maybe harder to be privatized since the resources they provided had a comparatively lower economic value and firms belonging to these industries may therefore have been downsized and closed-down with a higher probability. Second, the resources these industries provided were maybe less feasible to be a source for finding and exploiting market opportunities, reflected by the creation of new firms. Spin-offs from the former state-owned combines may have been occurred less likely, because individuals may not make properly use of the existing resources. The second channel is the one it is aimed at in the present paper.

Summing up, the role of the “usual regional suspects” in determining regional difference of start-up activity is unclear to a large degree. Only the effect of initial industry structure should be theoretically predictable if one may identify favourable and unfavourable industries. Due to the expected ambiguity it is not easy to state any reliable hypotheses regarding the direction of the effect of initial conditions on start-up activity.

What is hypothesized here is that initial conditions, which reflect the socialist face of a region imprinted at the eve of transition, determine start-up activity after the unleashing of market forces. Moreover, regional start-up activity depends on the past since regions have a different entrepreneurial climate despite the communist rule.

3 Data & Measurement

Data

The study was conducted by using a unique dataset that contains data on the current NUTS3-level (districts) for industrial shares of 9 broad sectors (8 manufacturing industries), and data on population structure. All of these data came from the GDR Statistical Offices (see Rudolph, 1990, for a description of the original data; see Kawka, 2007, for a detailed description of the adjustment of the data toward the current regional stratification).[1] This data was presumably not falsified because it was not sensitive in regard to socialist propaganda, unlike official data on productivity. Data on start-up activity after transition were obtained from the German Social Insurance Statistics' database. It contains information on every German establishment with at least one employee liable to Social Insurance (Fritsch & Brixy, 2004).[2]

The NUTS3-regions are not functional spatial units. However, broader spatial levels may cover the effects of initial conditions because the initial conditions of broader spatial units vary. Therefore, the analysis is on the level of NUTS3-regions. The period that is analyzed is 1995 to 2001.

Measurement

The indicator for the start-up activity is the start-up rate, in accordance with the labour market approach, in which the actual number of start-ups is divided by the labour force between the age 18 and 64 (Audretsch & Fritsch, 1994). This aligns with the definition in the *Global Entrepreneurship Monitor* (GEM, 2007).

$$(1)\quad start-up\quad rate = \frac{\sum start-up_r}{\sum pop18-64_r}$$

Alternatively, the rate can be calculated by dividing the number of employees by the sum of the number of employees and unemployed persons. This method is perhaps even better, since only the economically active population

[1] A special thanks to Dr. Rupert Kawka for providing this adjusted data. The data for East Berlin are not used because they are not reliable and because current data do not distinguish between East and West Berlin. Moreover, the counties of Eisenach and Wartburgkreis had to be merged together.

[2] Data from later years were gathered in accordance to a new sector classification, which makes it difficult to compare data over time.

is taken into consideration. Unfortunately, data on unemployment in East Germany are not obtainable on the actual NUTS3-level since the boundaries of these administrative units were changing at different points in time in the 1990s.[3] In the empirical analysis average start-up rates are used as dependent variable. This dependent variable is regressed on several independent variables, which are the fixed initial conditions in the year 1989. This method relies on OLS regressions, which are robust in accordance with the Huber-White sandwich procedure (Huber, 1967; White, 1980), in order to avoid the problem of heteroskedasticity. All continuous variables in the regression analysis are introduced as log values. The independent variables comprise a measure for the initial industry structure, the initial population density, the initial stock of knowledge, entrepreneurial culture and several control variables for dynamics and location patterns.

The initial industry structure is measured by the regional share of employment in unfavourable industries. Unfavourable industries were marked by especially low productivity and outmoded and especially environmentally harmful production techniques. These unfavourable industries mainly comprised the large-scale industries chemical, energy (mining), and metallurgy sectors (see Rudolph, 1990; van Ark, 1995; Stokes, 1995). It is expected that in regions with a high share of such industries entrepreneurial activities are lower due to a lack of market opportunities caused by the downsizing of industries and the depreciation of the resources of these unfavourable industries that were only to a limited degree an appropriate source for the exploitation of market opportunities.

$$(2)\quad Emp\_Unfav_r = \frac{Emp\_Energy_r + Emp\_Chem_r + Emp\_Metal_r}{Emp\_Total_r}$$

The effect of the initial degree of agglomeration is measured by the population density which is the number of inhabitants divided by the size of the regions in terms of square kilometres. The initial stock of knowledge is measured by the number of employees with a university degree within the total regional employment in 1989. Both variables are highly correlated. Therefore, in the regression analysis one might take care for the problem of

[3] There is a very complicated method to correct for this (Blien et al., 2004), but the computational effort is beyond the scope of this paper.

multicollinearity. Unfortunately, it is not possible to distinguish how knowledge was distributed across industries on the regional level.

Entrepreneurial Culture is measured by the self-employment rate in the year 1989, which is the number of self-employed in 1989 divided by the population between 18 and 64. There have been systematic differences in the distribution of self-employment rates in the former GDR that can be explained by the role entrepreneurship played in pre-socialist times (Kawka, 2007; Wyrwich, 2010). The self-employment rate in 1989 is therefore regarded in the present paper as a residual of the regional entrepreneurial heritage.

To control for changes of regional factors in the course of transition the changes of initial conditions are introduced in the regression model. The change measures the actual value of structural characteristics in reference to the initial level of these characteristics in 1989. Controlling for these changes seems necessary because since reunification a lot of relocation processes took place. This regards especially population and the distribution of highly qualified individuals due to migration. Since the existing industry structure is linked to market entry and exit and the process of restructuring in the former GDR was tremendous, a control for the change of industry structure is required. The change of the self-employment rate in reference to the initial level controls for the speed of catching-up processes in regard to start-up activities after transition.

It is also controlled for location patterns, which means that it is investigated whether NUTS3-regions that share a borderline with the Re-Unified Berlin and NUTS3-regions that share a common border with West German regions had different start-up rates. It is expected that both types of regions gained from economic integration. In the case of the adjacent regions of Berlin, because of the huge market potential of the new “old” German capital and in the case of regions along the former inner German border, because firms in these regions may attract additional demand from West Germany and spur plant relocations due to the lower costs of production in East Germany.

4 Descriptive Statistics

The regional differences of start-up activity in the aftermath of transition in East Germany are revealed graphically by figure 4.1. There are some clusters of high start-up rates, which can be found around Berlin and in the southwest of the former GDR.

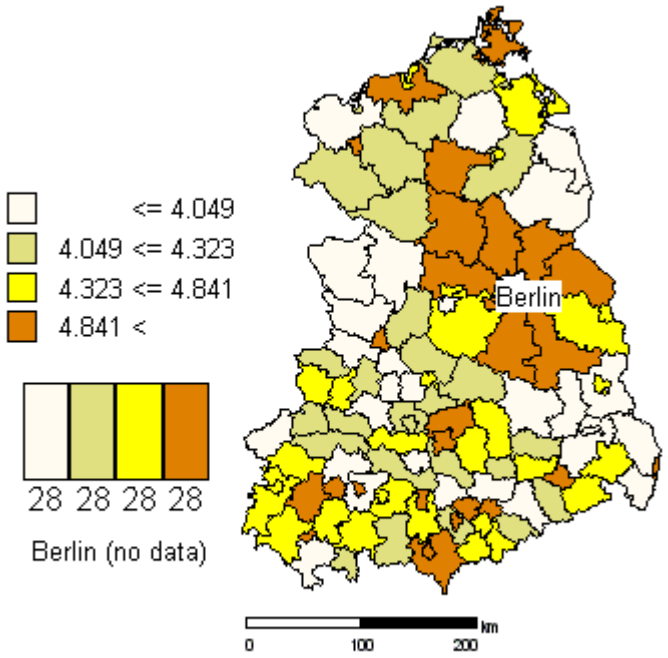

Figure 4.1: Average Start-Up rates (1995-2001) per 1000 individuals

The summary statistics also reveal that there are pronounced differences in regard to average start-up rates in East Germany. The highest rate was 6.85 start-ups on average in the county Ruegen, an island in the Baltic Sea, which is dominated by the tourism industry and the lowest start-up rate was 3.26 in the county free town of Hoyerswerda in Eastern Saxony. This town was a centre for the energetic industry that was heavily enforced during GDR times. The variables for measuring initial regional conditions reveal also many regional differences (see Table 4.1; see also correlations in Table A.1 in the Appendix).

Table 4.1: Summary Statistics for Start-Up Activity and Initial Regional Conditions

	Mean	S.D.	Min	Max
Average Start-Up Rate 1995-2001	4.453	0.602	3.264	6.851
Average Start-Up Rate 1996-2001	4.488	0.623	3.276	7.042
Average Start-Up Rate 1997-2001	4.662	0.654	3.308	7.321
Share of Employees in Unfavourable Industries in 1989	0.084	0.101	0.004	0.532
Population Density in 1989	5.287	1.1	3.775	8.069
Share of Employees with University Degree in 1989	0.062	0.028	0.024	0.211
Self-Employment Rate in 1989	0.017	0.006	0.004	0.032

5 Results & Discussion

The regression analysis shows that the average start-up rate is negatively affected by the initial share of employees in unfavourable large-scale industries (see Table 6.9). This holds for different durations of the time period analyzed. Thereby, the effect becomes not smaller or larger over time. Another interesting finding is that the change of employees in unfavourable industries has a significant negative effect on the average start-up rate. Thus, regions that have a higher decrease in employment in these industries have higher subsequent start-up activity. It is beyond the scope of a single paper to analyze whether in regions where the decrease of employment in large-scale is pronounced, start-up rates are higher and reflect a successful structural change or whether the higher start-up rates in these regions are mainly driven by necessity due to the loss of employment opportunities. What can be stated here is that the initial local industry structure had an effect on the average start-up rate in the aftermath of re-unification as it was also argued before.

The initial population density has a significant positive effect on start-up activity. Thus, regions with higher urbanization also have higher start-up rates. Interestingly the effect of urbanization on start-up activity becomes stronger the later the analyzed time period starts. This indicates that regions with a high urbanization needed time to utilize the positive agglomeration externalities that typically affect start-up activity. There is no effect of the change of population on start-up activity.

The regional knowledge base has no effect on start-up activity. The knowledge stock had to be adapted in the course of transition and many

highly qualified individuals migrated to West Germany. This may explain the insignificant coefficient for the initial knowledge stock. It may be that the positive effect of knowledge is covered by the general backlog demand for start-up activity in the early 1990s. The latter explanation may be of interest since the effect of the change of the knowledge stock becomes significant when tuning the beginning of the period analyzed to later years. There is, however, a high correlation between the regional knowledge base and the population density. To test whether this has an effect on the regression results, one can run separate regression models in which either the initial share of employees with university degree or the population density is employed. There is no remarkable difference in the coefficients when running separate regressions.[4]

The initial self-employment rate has only a weakly significant positive effect on subsequent start-up activity. It was used as indicator for entrepreneurial culture. Nevertheless, the self-employment rate has a pronounced effect on the start-up rate in manufacturing, which is better suited to measure the effect of the regional entrepreneurial heritage on actual entrepreneurship (see also Wyrwich, 2010 for details). Moreover, it may also be that early transition dominates the effect of the self-employment rate as proxy for entrepreneurial culture and source for persistency of start-up rates. There is however some degree of path-dependency.

The variables that control for location reveal that regions close to Berlin and at the prior inner German border have higher start-up rates than other East German regions. It seems that they could gain from economic integration.

Table 5.1: The effect of initial regional conditions on start-up activity

Average Start-up Rate	(1) 1995-2001	(2) 1996-2001	(3) 1997-2001
Share of Employees in Unfavourable Industries	-0.0518*** (0.0174)	-0.0590*** (0.0180)	-0.0533*** (0.0152)
Population Density	0.0376**	0.0402**	0.0421***

[4] These results can be obtained upon request.

	(0.0157)	(0.0161)	(0.0153)
Share of Employees with University Degree	0.0123	0.00837	-0.00233
	(0.0452)	(0.0440)	(0.0425)
Self-Employment Rate	0.169*	0.169*	0.219**
	(0.0884)	(0.0920)	(0.0996)
Change of Self-Employment Rate	0.0616	0.0653*	0.0816*
	(0.0371)	(0.0386)	(0.0443)
Change of Regional Population	0.198	0.117	-0.0390
	(0.224)	(0.222)	(0.229)
Change of Employment in Unfavourable Industries	-0.172*	-0.210**	-0.160**
	(0.0938)	(0.101)	(0.0753)
Change of Employees with University Degree	0.374	0.460*	0.508**
	(0.237)	(0.252)	(0.252)
Adjacent County of Berlin (YES=1)	0.116***	0.100***	0.0808**
	(0.0367)	(0.0356)	(0.0369)
County located along the prior Inner German Border (YES=1)	-0.0366	-0.0218	-0.0125
	(0.0250)	(0.0249)	(0.0254)
Constant	-5.453***	-5.439***	-5.137***
	(0.522)	(0.539)	(0.546)
Observations	111	111	111
R-squared	0.430	0.453	0.467

Notes: Berlin is excluded and the counties Eisenach and Wartburgkreis were merged together/Robust standard errors in parentheses/ *** p<0.01, ** p<0.05, * p<0.1/ All independent variables refer to the year 1989/ all continous variables are in log-form

6 Concluding Remarks

This paper focuses on the role of initial regional conditions on the rise of entrepreneurship in the aftermath of transition. Initial conditions comprise the original structural composition of regions at the eve of transition. This is the initial industry structure, the initial population density, the initial stock of knowledge and the entrepreneurial culture of regions that remained after 40 years of socialism.

This approach was carried out for East Germany, which underwent a transition from a CPE towards a market economy. Multivariate methods showed that regions with an unfavorable large-scale industry structure have lower start-up rates during transition. Unfavorable industries are those ones that were especially exposed to the transition shocks and had problems to adapt to the market economy. The effect of a high population density is also significantly positive and becomes stronger over time. The entrepreneurial culture of regions has a weakly significant positive effect on general start-up

activity. The initial stock of knowledge has no effect on start-up activity. The study shows the relevance of initial conditions and identifies to some degree sources of persistence of regional start-up rates.

However, there are several limitations of this study. The initial conditions identified here are only very broad measured. Data in more detail on industry structure and knowledge are warranted. Moreover, this paper shed only light on the first period of transitions. It might be fruitful to investigate recent developments. An analysis for other transition economies could also be promising. Altogether, the relevance of initial conditions on the regional level should be analyzed in more detail in future research.

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Appendix

Table A.1: Correlation Matrix for dependent and independent variables of regression analysis

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	Average Start-Up Rate 1995-2001	1												
[2]	Average Start-Up Rate 1996-2001	0.994	1											
		[0.000]												
[3]	Average Start-Up Rate 1997-2001	0.977	0.99	1										
		[0.000]	[0.000]											
[4]	Share of Employees in Unfavourable Industries	-0.245	-0.258	-0.272	1									
		[0.000]	[0.000]	[0.000]										
[5]	Population Density	0.377	0.404	0.405	0.119	1								
		[0.000]	[0.000]	[0.000]	[0.000]									
[6]	Share of Employees with University Degree	0.29	0.285	0.263	0.083	0.627	1							
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]								
[7]	Self-Employment Rate	-0.055	-0.07	-0.061	-0.08	-0.267	-0.423	1						
		[0.123]	[0.070]	[0.152]	[0.000]	[0.000]	[0.000]							
[8]	Change of Self-Employment Rate	0.282	0.3	0.305	0.017	0.114	0.183	-0.354	1					
		[0.000]	[0.000]	[0.000]	[0.454]	[0.000]	[0.000]	[0.000]						
[9]	Change of Regional Population	0.036	-0.009	-0.041	-0.148	-0.393	-0.141	0.324	0.086	1				
		[0.316]	[0.817]	[0.334]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]					
[10]	Change of Employment in Unfavourable Industries	0.031	0.022	0.016	-0.676	-0.315	-0.127	0.066	0.009	0.302	1			
		[0.387]	[0.571]	[0.714]	[0.000]	[0.000]	[0.000]	[0.017]	[0.739]	[0.000]				
[11]	Change of Employees with	0.264	0.277	0.272	0.146	0.212	0.078	-0.065	0.089	0.031	0.046	1		

	University Degree	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.005]	[0.019]	[0.001]	[0.259]	[0.097]			
[12]	Adjacent County of Berlin [YES=1]	0.246	0.216	0.179	-0.013	-0.125	0.052	0.032	0.021	0.311	0.129	0.12	1	
		[0.000]	[0.000]	[0.000]	[0.542]	[0.000]	[0.018]	[0.145]	[0.338]	[0.000]	[0.000]	[0.000]		
[13]	County located along the prior Inner German Border [YES=1]	-0.185	-0.163	-0.152	-0.095	-0.245	-0.208	0.232	-0.073	0.177	0.099	-0.17	-0.132	1
		[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.001]	[0.000]	[0.000]	[0.000]	[0.000]	